IODP Science Planning and Policy Oversight Committee

1st Meeting, 5-6 December 2003

Embarcadero Conference Center
San Francisco, California, U.S.A.

Science Planning and Policy Oversight Committee - SPPOC

Eric J. Barron	Department of Geosciences, Pennsylvania State University, USA
Margaret Delaney	Ocean Sciences Department, University of California, Santa Cruz, USA
Yoshio Fukao	Earthquake Research Institute, University of Tokyo, Japan
Susan Humphris	Woods Hole Oceanographic Institution, USA
Gaku Kimura	Department of Earth & Planetary Science, University of Tokyo, Japan
Roger Larson	Graduate School of Oceanography, University of Rhode Island, USA
Larry Mayer*	Center for Coastal and Ocean Mapping, University of New Hampshire, USA
Akira Nishimura	Geological Survey of Japan
Motoyoshi Oda	Department of GeoEnvironmental Sciences, Tohoku University, Japan
Nicklas Pisias	College of Oceanic & Atmospheric Sciences, Oregon State University, USA
David Rea	Department of Geological Sciences, University of Michigan, USA
David Scholl[a]	U.S. Geological Survey
Kenji Shuto	Department of Geology, Niigata University, Japan
Kensaku Tamaki (chair)	Ocean Research Institute, University of Tokyo, Japan
Kaoru Tsujii	Research Institute for Electronic Science, Hokkaido University, Japan

[a]Alternate for Larry Mayer.
*Unable to attend.

Liaisons

Mike Coffin (SPC)	Ocean Research Institute, University of Tokyo, Japan
Bruce Malfait	National Science Foundation (NSF), USA
Yasuhisa Tanaka	Ministry of Education, Culture, Sports, Science, and Technology (MEXT), Japan

Guests

Jamie Allan	National Science Foundation (NSF), USA
Jamie Austin (IMI)	Institute for Geophysics, University of Texas at Austin, USA
Rodey Batiza	National Science Foundation (NSF), USA
Steve Bohlen	JOI Alliance, Joint Oceanographic Institutions, Inc. (JOI), USA
Robert Detrick (IMI BoG)	Woods Hole Oceanographic Institution, USA
Kathy Ellins	Institute for Geophysics, University of Texas at Austin, USA
Dan Evans	ECORD Science Operator (ESO), British Geological Survey, United Kingdom
David Falvey	British Geological Survey, United Kingdom
John Farrell	JOI Alliance, Joint Oceanographic Institutions, Inc. (JOI), USA
Jeff Fox	JOI Alliance, Texas A&M University, USA
David Goldberg	JOI Alliance, Lamont Doherty Earth Observatory, USA
Dennis Kent (IMI BoG)	Department of Geological Sciences, Rutgers University, USA
Eiichi Kikawa	OD21 Program Department, JAMSTEC, Japan
Kenji Kimura	Ministry of Education, Culture, Sports, Science, and Technology (MEXT), Japan
Hajimu Kinoshita (IMI BoG)	Japan Marine Science and Technology Center (JAMSTEC), Japan
Hans Christian Larsen	Danish Lithosphere Center, Denmark
John Ludden (ECORD)	Institut National des Sciences de l'Univers, CNRS, France
Tadao Matsuzaki	OD21 Program Department, JAMSTEC, Japan
Catherine Mevel	ECORD Management Agency (EMA), Institut de Physique du Globe de Paris, France
Osamu Miyaki	Ministry of Education, Culture, Sports, Science, and Technology (MEXT), Japan
Hisatake Okada (IMI BoG)	Department of Earth Science, Hokkaido University, Japan
Neil Opdyke (IMI BoG)	Department of Geological Sciences, University of Florida, USA
John Orcutt (IMI BoG)	Scripps Institution of Oceanography, University of California, San Diego, USA
Kiyoshi Otsuka	OD21 Program Department, JAMSTEC, Japan
Frank Rack	JOI Alliance, Joint Oceanographic Institutions, Inc. (JOI), USA
Shingo Satomura	Ministry of Education, Culture, Sports, Science, and Technology (MEXT), Japan

Raymond Schorno (ECORD)	Netherlands Organization for Scientific Research
Jianzhong Shen	Ministry of Science and Technology, China
Paul Stoffa (IMI)	Institute for Geophysics, University of Texas at Austin, USA
Kiyoshi Suyehiro (IMI)	Deep Sea Research Department, JAMSTEC, Japan
Asahiko Taira	Center for Deep Earth Exploration, JAMSTEC. Japan
Manik Talwani	Department of Earth Science, Rice University, USA

iSAS Office

Nobuhisa Eguchi	Japan Marine Science and Technology Center (JAMSTEC), Japan
Jeff Schuffert	Japan Marine Science and Technology Center (JAMSTEC), Japan

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Revised Executive Summary (v2.2)

SPPOC Consensus 03-12-01: The SPPOC approves the revised agenda for its first meeting on 5-6 December 2003 in San Francisco, California.

SPPOC Consensus 03-12-02: The SPPOC transfers the OPCOM responsibilities from the SAS to the IMI, with the IMI vice president for science operations serving as the chair of the OPCOM.

SPPOC Consensus 03-12-03: The SPPOC thanks and compliments the IMI interim director, the IODP Science Advisory Structure, the iSAS Office, CDEX, the JOI Alliance, and the ESO for providing an excellent program plan addressing the SAS scientific objectives for the initial year of IODP operations. In approving the IODP Program Plan for FY2004, the SPPOC recognizes that the IODP is in a transitional phase and that the definitions and assumptions used in making budgetary assignments (*e.g*., POCs and SOCs) may not be the definitions used in subsequent program plans. The SPPOC requests an FY2005 Program Plan for consideration at its July 2004 meeting and an FY2006 Program Plan for consideration at its December 2004 meeting.

SPPOC Consensus 03-12-04: The SPPOC endorses the process that includes communication and evaluation amongst a scoping group, the OPCOM, and the SPC and by which planning for the mission-specific platform expedition to the Arctic is taking place. The SPPOC wishes to be kept informed as to the progress in preparation for this expedition and appoints Roger Larson as liaison to the Arctic scoping group.

SPPOC Consensus 03-12-05: The SPPOC requests that the SPC charge the SciMP with providing advice on what measurements need to be made by the shipboard and shore-based science parties of the Arctic expedition.

SPPOC Consensus 03-12-06: The SPPOC establishes *Ad hoc* Committee-1 to evaluate the current IODP Science Advisory Structure and modify it in light of the IMI requests issued on and after 2 October 2003. The following functions are expected to be implemented into the modified IODP SAS: effective program evaluation and assessment, effective multi-platform and long-term science planning, effective interaction between the IMI and the SAS, and integration with other international earth science programs.

Membership of *Ad hoc* Committee-1 should include three SPPOC members (one serving as chair), the SPC chair, and the IMI vice president for science planning. The committee should meet at the March 2004 SPC meeting and the July 2004 SPPOC meeting, and it should give a mid-term report at the July 2004 SPPOC meeting and a final report at the December 2004 SPPOC meeting. (*Note:* membership of the committee includes Delaney as chair, McKenzie, Tsujii, Coffin, and Larsen. MacKenzie took over as chair on 23 March 2004.)

SPPOC Consensus 03-12-07: The SPPOC establishes *Ad hoc* Committee-2 to recommend a conflict-of-interest policy for the IODP Science Advisory Structure. The committee should define the principles that the COI policy is intended to address and should draft a COI policy that implements those principles for consideration by the SPPOC. It may be appropriate to consider a two-tier COI policy, one for the SPPOC and its *ad hoc* working groups and one for the SPC, the SAS panels, and *ad hoc* working groups reporting to the SPC. Considerations of conflicts of interests should include, but not be limited to, conflicts that may be held by proponents of drilling proposals; by representatives of funding agencies and implementing organizations; and by representatives of for-profit entities. Professional, commercial, familial, and other personal conflicts of interest should all be considered.

Membership of *Ad hoc* Committee-2 should include the SPPOC, the SPC, and SAS panel members. Professional legal consultation may be required to review the COI policy. The committee should prepare a comprehensive draft of an IODP COI policy in time for the July 2004 SPPOC meeting. (*Note:* membership of the committee includes Fukao as chair, Rea, Le Pichon, Becker, Coffin, and Ildefonse.)

SPPOC Consensus 03-12-08: When IODP is fully implemented, funding will flow in two distinct channels: platform operating costs (POCs) from the (lead) agencies to implementing organizations (IOs) and science operating costs (SOCs) from the NSF through the central management organization (IMI, Inc.) to the IOs and subcontractors, as required. The draft of the FY2004 Program Plan confirms that the existing definitions of POCs and SOCs are too general, leading to unavoidable inconsistencies in the provision of budgets by the IOs to centralized management. The SPPOC therefore establishes *Ad hoc* Committee-3 to develop a robust, program-wide, definition of POCs and SOCs, using the following as inputs: a) the definitions of POCs and SOCs given in the approved NSF-MEXT memorandum, b) the FY2004 Annual Program Plan appendices submitted from the IOs, as evidence of the varied interpretations possible based upon the IWG definitions, and c) input on this issue from NSF and MEXT, as it becomes available.

Membership of *Ad hoc* Committee-3 should include several SPPOC members, representatives from each IO, the IMI, and one or more outside experts. The committee should prepare a written report in time for the July 2004 SPPOC meeting. (*Note:* membership of the committee includes Pisias as chair, Kimura, Kudrass, Janecek, Kawamura, Rack, and Evans.)

SPPOC Consensus 03-12-09: The SPPOC receives SPC Motion 03-09-22 on an ancillary programs policy.

SPPOC Consensus 03-12-10: The SPPOC receives SPC Motion 03-09-23 on an IODP sample and data policy and forwards it to the IMI. We accept this as an interim policy. We endorse the general principles laid out in this policy, though we recognize that some aspects require further review and modification. We request that the IMI review this policy with the implementing organizations and revisit it with the SAS as necessary before requesting final approval by the SPPOC.

SPPOC Consensus 03-12-11: The SPPOC receives SPC Consensus 03-09-40 on the obligations of IODP scientists and forwards it to the IMI. We note certain substantive defects in the policy (*e.g.*, not requiring data submission of all participating scientists in a timely manner, the weakness of requiring acknowledgement statements rather than keyword choice for tracking legacy), as well as others that result from program transition issues (*e.g.*, there is no defined IODP Curator at present). We approve this as an interim policy for the IODP, with the requirement that this be rewritten to a) require post-cruise data submission for all participating scientists to an anticipated IODP database and b) require keyword choices on published manuscripts to enable legacy tracking. We request that the IMI review this policy with the implementing organizations and revisit it with the SAS as necessary before requesting final approval by the SPPOC.

SPPOC Consensus 03-12-12: The SPPOC approves the revised terms of reference forwarded by the SPC for interim use, with the following modifications: a) revision of the language about the OPCOM as shown in the attachment, given SPPOC Consensus 03-12-02 on the OPCOM, and b) making explicit the requirement that any changes in the SPC member representation (*i.e.*, naming of alternates for members for meetings without prior approval of the alternates by the SPPOC) be reviewed by the SPPOC for approval. In addition, we recognize that the membership of the SPC will change with the addition of new members to the IODP, and the terms of reference will have to be modified accordingly.

SPPOC Consensus 03-12-13: The SPPOC receives SPC Consensus 03-09-42 on COI issues and SPC Consensus 03-09-43 on proposal evaluation procedures. We have initiated an *ad hoc* working group to formulate a conflict of interest policy for the SPPOC and the SAS, and we will consult broadly with the SAS and others in this process. We instruct the SPC and other SAS committees and panels to use the conflict of interest policy as defined by the JOIDES Science Advisory Structure until otherwise instructed by the SPPOC. We recognize that this policy has been interpreted in different ways in the past, and we offer the following specific guidance on the handling of proposals. In particular, our directions differ from SPC Consensus 03-09-43 in the directions for Phase I of Proposal Handling Procedures. Proponents can be present for general discussion of proposals (*e.g.*, assessment of how proposals fit into the long-range plan, how proposals address long-range objectives). Proponents of proposals under consideration by the respective panels (SSEPs) or committee (SPC) are to be excluded from all discussions evaluating specific proposals and all discussions leading to grouping for forwarding to the SPC (SSEPs) and ranking and voting (at SPC). Proponents of proposals under consideration are therefore excluded from serving as watchdogs on other proposals at SPC meetings. As described in the JOIDES COI policy, it is the responsibility of the committee chair to define and announce stages of discussion. Conflicts of interest, as well as other absences by committee or panel members, require alternates with suitable scientific expertise for conflicted or absent members. This will require due attention by the SPC chair and by other SAS chairs to make such requests in advance of meetings. Sufficient time must be given for the national organizations to nominate alternates, if standing alternates have not been approved in advance, for these alternates to be approved by the SPPOC (for the SPC) or by the SPC (for other SAS committees and panels), and for the alternates to be fully informed of relevant business in time to be prepared for meetings. We recommend that the SAS Office should serve as the point of contact for SAS committee members about meeting attendance. The SAS Office should be responsible for assisting the SPC chair and other SAS chairs in identifying potential conflicts of interests with adequate lead-time. The SAS Office should track other absences of members of SAS panels and

committees. The SAS Office should assist the chairs with ensuring alternate representation. If other specific questions or concerns arise in applying this policy, the SPC chair should consult the SPPOC chair and the IMI President for guidance.

SPPOC Consensus 03-12-14: The SPPOC accepts SPC Consensus 03-09-44 on the handling of proposals irrespective of the nationalities of the proponents.

SPPOC Consensus 03-12-15: The SPPOC receives SPC Motion 03-09-24 on the establishment of a working group on IODP publications. We are very concerned about publication policy for the IODP, and we appreciate the SPC working group activity in this regard. Publication policy is central to defining the obligations of participants, to accomplishing and documenting the scientific achievements of the IODP, and to defining the scientific legacy of the IODP.

SPPOC Consensus 03-12-16: The SPPOC receives SPC Motion 03-09-12 and its referenced reports on paleontology, paleomagnetics, and underway geophysics from the iSciMP. We recommend that the SPC return these recommendations to the SciMP for consideration, assessment, and prioritization by time urgency and scientific importance at their next meeting. This should include consulting with the IO representatives to this panel before forwarding recommendations to the SPC.

SPPOC Consensus 03-12-17: The SPPOC receives SPC Motion 03-09-15 on hole-problem risk mitigation plans and Consensus 03-09-17 on ROVs for drilling platforms from the iTAP. We recommend that the SPC return these recommendations to the TAP for consideration, assessment, and prioritization by time urgency and scientific importance at their next meeting. This should include consulting with the IO representatives to this panel before forwarding recommendations to the SPC.

SPPOC Consensus 03-12-18: The SPPOC receives the database, microbiology, and data bank working group reports. We forward the database and data bank reports to the IMI.

SPPOC Consensus 03-12-19: The SPPOC directs the IODP Science Advisory Structure to consider only proposals that require ocean drilling or drilling related capabilities.

SPPOC Consensus 03-12-20: The SPPOC endorses the continuation in the IODP of the highly successful ODP Undergraduate Student Trainee Program and recommends implementing this program under the existing ODP guidelines until such time as it can be redefined as part of an overarching IODP educational activity.

SPPOC Consensus 03-12-21: The members of the IODP Science Planning and Policy Oversight Committee extend our thanks to the committee chair, Professor Kensaku Tamaki, for his careful oversight and direction of our initial meeting in December of 2003. The smooth functioning of this group, especially considering it was the initial gathering of a new international group, is a direct result of his thoughtful stewardship.

SPPOC Consensus 03-12-22: The members of the IODP Science Planning and Policy Oversight Committee extend our thanks to Jamie Austin, IMI Interim Director, for hosting this meeting and for his wide range of contributions to its success. We also thank the staff of the iSAS Office for all their work in making the first SPPOC meeting of IODP a success, and we extend our thanks to the multitude of liaisons and guests for their contributions to our inaugural meeting.

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Revised Minutes (v2.0)

Friday **5 December 2003** **08:30-18:00**

1. Introduction

1.1 Opening remarks and introduction of participants

Kensaku Tamaki opened the meeting at 08:30. He outlined the challenges of starting a large new science program such as the IODP and characterized it as at the forefront of modern science. Tamaki introduced himself and asked all participants to do the same, beginning with the committee members.

1.2 Welcome and meeting logistics

Jamie Austin, the meeting host, welcomed everyone to San Francisco and briefly explained the meeting logistics.

1.3 Approval of meeting agenda

Tamaki reviewed the agenda and proposed adding items 7.1 SAS and OPCOM, 7.2 Conflict of interest policy, 7.3 POC and SOC definitions, 16.1 Summary of consensus items, and 16.2 Management of SPPOC. David Falvey noted that only Dan Evans would represent the ESO at this meeting. With no further comments, the committee approved the revised agenda by consensus.

SPPOC Consensus 03-12-01: The SPPOC approves the revised agenda for its first meeting on 5-6 December 2003 in San Francisco, California.

1.4 Review of committee terms of reference

Tamaki explained the rules of order for the meeting, noting that committee members would sit in alphabetical order around the table. He requested that all participants should raise a hand to speak, use the microphone, and speak clear understandable English. Tamaki then reviewed the salient points of the SPPOC terms of reference.

Larson noted that Robert's Rules of Order require only a simple majority to decide matters, whereas the SPPOC terms of reference call for a two-thirds majority. Delaney clarified that the committee needs twelve members for a quorum and twelve for an affirmative vote. Schorno noted that Europe had nominated one non-voting member who should not count toward the quorum and vote. Malfait stated that only the U.S. and Japanese members could vote at this meeting because Europe had not yet signed a memorandum to join the IODP. Tamaki explained that he hoped the committee could make most of its decisions by consensus.

2. Agency reports

2.1 NSF

Bruce Malfait described the Memorandum of Cooperation for the IODP as a result of government planning that began in 1997 and science planning that began several years earlier. He stated that the international community would provide scientific guidance, all

operations would accord with the memorandum, and the program would include an implementation phase from October 2003 through September 2006. Malfait noted the request for proposals for the central management organization released in late November and announced that the NSF would issue a sole-source contract, perhaps by late February, to the IODP Management International, Inc. (IMI). He also announced that the NSF would contract with the JOI Alliance for non-riser drilling operations. Malfait explained that Phase 1 would include operating the current vessel for 2004-2005 and converting and outfitting a drilling ship for trials in 2005-2006, with normal operations resuming for Phase 2 in 2006-2013. He said the contract would provide for platform and science operations costs (POCs and SOCs), with the operations and costs based on an annual program plan, and work continued on the details of the costs and contract. Malfait also reported on the currently underway review of proposals solicited for managing the support of U.S. scientists participating in the IODP.

2.2 MEXT

Yasuhisa Tanaka highlighted some of the recent planning activities in Japan, including installation of the derrick on the *Chikyu* in late September, an IODP inaugural symposium in Tokyo in early October, and a MEXT-NSF meeting with European representatives in early October. He noted several personnel changes at MEXT in 2003, including the appointment of new minister Takeo Kawamura in September, his own appointment as Director for Deep Sea Research in July, and the stationing of Kenji Kimura as MEXT liaison with NSF in Washington, D.C. Tanaka updated the progress on construction of the *Chikyu* and explained that the ship had moved from Tamano to Nagasaki for the final phase of construction and outfitting. He showed images of the derrick installation at the Nagasaki shipyard and stated that everything went smoothly without any problems.

2.3 EMA

Catherine Mevel announced that thirteen European countries would sign a joint agreement in mid December for participating in the IODP. She reported that Canada and Ireland hope to join in 2004, Belgium intends to join in 2005, and talks continue with several other countries. Mevel diagrammed the ECORD structure and showed the flow of funding and advice among its components, including the ECORD council, the ECORD Management Agency (EMA), the ECORD Science Operator (ESO), and the ECORD Science Support and Advisory Committee (ESSAC). She listed the tasks of the EMA, as administered through the IPGP at the CNRS-INSU in Paris, and she described the function of the ESSAC, noting that it currently does not have centralized European support. Mevel characterized the ESO as a primary implementing organization for operating mission-specific platforms. She explained that the ECORD aims to contribute three SOC participation units and one POC participation unit over the total duration of the IODP, but would contribute only two SOC units during the initial implementation period and keep the POCs for MSP operations. She also explained that the status of contributing member would entitle ECORD to eight participants on all expeditions and three voting members and one non-voting member on all SAS committees and panels. Mevel concluded that ECORD hoped to sign the memorandum and officially join the IODP in January.

Humphris asked about the meaning of non-voting members when all SAS meetings remain open to anyone. Ludden explained that non-voting members would have full rights to sit at the table and participate in all discussions, but they would just not have a vote.

2.4 MST - China

Jianzhong Shen reported that China hopes to sign an MOU with MEXT and NSF as soon as possible for joining the IODP. (*Note:* the Memorandum of Participation was signed on 26

April 2004.) He said that China plans to contribute a total of $4 million over the first four years and then decide after that whether to increase the amount. Shen mentioned an upcoming national workshop on participating in the IODP and the need to establish national IODP committees soon to coordinate among the various governmental organizations and to address scientific concerns.

3. Management and operations reports

3.1 IMI, Inc. interim report (including iSAS Office)

Paul Stoffa referred to the detailed list of IMI activities in the agenda book. He noted the board meetings in March and September 2003 and the establishment of the SPC and the SPPOC. Stoffa announced that Talwani and Larsen had accepted the offers of president and vice president and the NSF had identified the IMI as a sole source for management of the IODP. He mentioned those involved in writing the proposal for the IMI contract, including a contracts specialist, and added that two IMI BoG members would review the proposal before its submission in January 2004. Stoffa expected the IMI to hire a chief financial officer in the early stages, and they also must establish an office in Washington, D.C.

Jamie Austin stated that the IMI would fill an important role for integrating the program. He provided background on the first IMI meeting in late March 2003, when the board of governors approved the by-laws of the corporation, and he explained that the interim grant for the IMI would run until May 2004, with the permanent IMI functions beginning by 1 April 2004. Austin reported that so far they had prepared the annual program plan by early December 2003, worked to assure a smooth transition from the iSAS to the SAS, and aided in selecting the IMI president and vice president. He added that the IMI had advertised for a second vice president and should select someone soon. Austin mentioned the first IOs meeting in August 2003 and the next meeting planned for late February 2004 in Edinburgh. He believed that such meetings should occur on a regular basis, but he also suggested that the SPPOC might want to examine how to establish and maintain an effective link with the SAS. Austin listed several action items from the first IOs meeting and said that possible additional meetings would address topics such as core storage and sampling, database management, publications, and planning for education and outreach.

Tsujii asked how many full-time employees the IMI had now. Austin said none at the moment, but the first ones would start in January. Pisias thought that the IMI could arrange meetings whenever it wanted with its subcontracting organizations and would not need approval from the SAS.

Nobu Eguchi reviewed the schedule of recent and upcoming SAS meetings from September 2003 through March 2004. He illustrated the distribution of active proposals by themes of the IODP Initial Science Plan and noted that the ratios among the themes had remained fairly constant during the interim period. Eguchi added that the proposals had come from sixteen different countries, with the proponents representing over thirty countries.

3.2 IMI, Inc.

Manik Talwani cited the impressive amount of work already done in creating the IODP. He emphasized that the IODP represents a single program that ultimately belongs to the scientists, with the IMI operating on commingled funds and serving only as a tool. Talwani described the IMI as obligated to follow and implement those principles. He then outlined several requests he would make of the SPPOC concerning a) reviewing and modifying the science advisory structure if necessary, b) deciding whether the OPCOM should belong to the SAS or the IMI, c) examining the definitions and distinctions of POCs and SOCs, d) reviewing and recommending cross-platform activities, e) initiating new cooperative links

with other marine geoscience communities who might participate in scientific ocean drilling, and f) trying to induce other countries and consortia to join the program. Tamaki promised that the SPPOC would consider those requests and develop a response.

Hans-Christian Larsen felt encouraged by the development of the program so far and so soon after the last operations of the ODP. He looked forward to working as the IMI vice president beginning in the near future. (*Note:* Larsen assumed the IMI vice presidency on 1 April 2004.) Larsen said that representatives from the IMI-Sapporo office would attend all SAS meetings because he wanted the IMI to play an active part in the program and not function merely as a remote detached entity.

3.3 JOI Alliance

Steve Bohlen reported that the JOI Alliance intends to manage the U.S. component of the IODP in a more integrated way. He saw the team approach as the most effective way to do so, and he outlined the various management teams established for oversight, program accountability, operations, technical development, information, and publications, education and outreach. He also emphasized the substantial educational commitment proposed by the alliance partners of Columbia University and Texas A&M University. Bohlen summarized the three main IODP science objectives and identified the broader objectives of creating new knowledge and understanding of the science objectives; developing new avenues and partnerships for research with biologists, physicists, chemists, engineers, and social scientists; connecting ocean drilling with national and international science initiatives; developing a new generation of leaders in ocean sciences; and creating an ocean science literate society. He also identified a list of immediate priorities for the JOI Alliance to address before the first expedition, including an indemnification proposal, a major research equipment and facilities construction (MREFC) project execution plan, a market survey, an invitation to tender, an environmental impact assessment and statements, marine mammal permits, the HSE manual, and the IODP policy manual.

3.4 CDEX

Asahiko Taira outlined the CDEX structure showing separate groups for administration, operations, science services, and site surveying, plus an advisory HSE group. He explained that the CDEX would employ subcontractors for ship operations, science surveys, and site surveys. Taira briefly reviewed the HSE policy and the commitments for building an HSE manual and management system, complying with standards and regulations, and preparing specific HSE and other mandatory training programs. Taira presented the *Chikyu* construction schedule showing sea trials scheduled to begin in July 2004 and an offshore training period beginning from May 2005 to September 2006, followed by delivery for international operations. He identified the drilling sites for the training cruise off northeastern Japan and cited a dense 2-D seismic survey already completed and a side-scan sonar survey underway. He added that the initial surveys had found evidence of gas at the selected sites. Taira explained that riser operations required at least four years of advance planning, including two years for deep seismic and location surveys and two years for other drilling preparations such as cost analysis, equipment procurement, and logistics. He summarized the FY2004 activities for site surveying at the training sites and stressed that planning must start soon for the sites of the first riser drilling expedition. Taira outlined other CDEX preparations for science support, staffing, database management, proposal support, core repository, and engineering development for long-term monitoring systems, and he showed images of the new Kochi Center for Advanced Marine Core Research and the *Chikyu*.

Pisias asked about the need for non-riser drilling to characterize sites for riser drilling. Taira replied that installation of the initial casing and the BOP would require the riser vessel and could occur during the early stage of regular operations. He also envisioned riser and non-riser drilling as a complete package for certain projects. Larsen asked about the first sea trials for testing the dynamic positioning system. Taira described the first sea trials as very successful, even under the difficult conditions of the Kuroshio Current and a passing typhoon.

3.5 ESO

Dan Evans reported on the role of the ECORD Science Operator (ESO) as part of the European consortium. He identified the British Geological Survey (BGS) as the overall coordinator of operations, the University of Bremen as the provider of core storage and database management facilities, and the University of Leicester as the leader of a petrophysics consortium composed of four European universities. Evans diagrammed the ESO management structure led by an operations manager and a science manager. He explained that the ESO would contract a suitable platform for each expedition selected from the proposals ranked by the SAS, and he emphasized that the operations would differ from those in the ODP, particularly concerning shipboard science.

Evans reviewed the operational strategy and remaining preparations for the Arctic expedition in August 2004 and announced that the ESO expected to let the contracts in January. He explained that only a portion of the science party would sail on the expedition and the rest would participate onshore at the core repository in Bremen. He added that the new facility now under construction should open by October or November 2004, just in time for the Arctic science party. Evans reviewed the HSE issues and emphasized that the ESO would adhere to the highest standards. He also assured the committee that the ESO would fully integrate the Arctic expedition within the IODP. Evans outlined the schedule of current and upcoming activities and noted that the ESO had started the initial planning for the Tahiti and Great Barrier Reef expedition, though they anticipated difficulties getting permission to drill on the latter.

Larson worried that the preparation schedule for the Arctic expedition looked pretty tight, especially for converting the drilling ship and getting the science party in place. Evans acknowledged that a lot of work remained but expressed confidence that it would all fit into the schedule. He added that notices had gone out to get nominations for the science party and they hoped to begin establishing it in January. Delaney asked who defined the total size of the science party and noted the commitment and obligations involved on the part of the program. She also wanted to ensure an open process for selecting participants and wondered about publicity efforts. Evans replied that they had focused so far on the small offshore party and anticipated a much larger onshore party of approximately twenty-four, with the national and consortium programs handling the call for participants. Coffin announced that an Eos article would come out soon (see 13 January 2004 issue) with information on how to apply to the various national programs. Pisias wondered whether the IMI needed to have a person coordinating this activity. Austin replied that the IMI must keep track of staffing in terms of maintaining appropriate national balance but the basic responsibility at the moment rested with the individual IOs in cooperation with the national and consortium entities. Talwani noted that if the budgeting would go through the IMI then ultimately the IMI would have to determine the size of the science party. Delaney characterized the goal of operating as a single program across the platforms and remaining open to participants with little or no previous experience. Pisias suggested that the IMI needed to establish a uniform set of criteria for use by the operators. Tamaki preferred to continue this discussion if necessary under the following agenda item.

4. Presentation of FY2004 Program Plan and indicative FY2005 Science Plan

Jamie Austin reported that the FY2004 program plan came together in less than three months, without the benefit of budget guidance from the funding agencies. He reviewed the original definitions of POCs and SOCs as determined by the IWG and identified the fundamental task of refining those definitions to account for the complexity of multi-platform operations. Austin stressed the need for a full and robust definition of SOCs to integrate the program effectively through the IMI. He outlined the estimated FY2004 program costs totaling slightly more than $40 million, including $25 million for POCs and $15 million for SOCs, and stated that for this fiscal year only, both POCs and SOCs would flow directly from the funding agencies to the IOs. Austin also noted that the overall budget estimate did not include $2.5 million for non-riser vessel mobilization costs negotiated between the NSF and the JOI Alliance, and the line item for the IMI excluded several important subcontracts for the database, repositories, and engineering development.

Mike Coffin reported that the first phase of IODP drilling operations (FY2004 and part of FY2005) would include one MSP and six non-riser expeditions addressing all three themes of the Initial Science Plan. He showed a map of the operational realm and explained that the schedule included two, two-expedition projects and one combined expedition. Coffin then showed geographic maps and selected seismic profiles of the proposed drilling sites and briefly summarized the scientific objectives of the individual expeditions for Juan de Fuca Flank Hydrogeology, North Atlantic Neogene–Quaternary Climate, Oceanic Core Complex, CORK in Hole 642E, and Arctic–Lomonosov Ridge. (*Note:* the SPC and OPCOM subsequently inserted a Costa Rica Hydrogeology expedition between the first two expeditions.)

Austin described the operational plan and budgetary breakdown and specified the drilling, logging, and monitoring equipment needed for each scheduled expedition. He emphasized the commitment to protecting health, safety, and environment and reviewed the potential risks concerning various aspects such as weather, reentry cones and casing hangers, hole stability for CORKs and packer experiments, the difficulty starting holes in bare rock, and the effects on marine mammals from proposed seismic experiments. Austin mentioned two SPC motions concerning other highly ranked but unscheduled proposals and stated that planning must begin now for a full year of operations in FY2005. He added that the SPC might prioritize additional programs and make a commitment to one or more CDPs in late March. Coffin confirmed that the SPC would need to do more ranking and scheduling to prepare the program plans for FY2005 and FY2006.

5. Discussion of FY2004 Program Plan and indicative FY2005 Science Plan

Pisias wondered at what point the program might consider the development of a third-party tool as a SOC if the success of a project depended on it, such as for the Juan de Fuca Expedition. Austin explained that a third-party proposal had received funding for the continuing development of certain parts of the advanced CORKs proposed for deployment on that expedition. Humphris saw it as a larger issue than just for one expedition, especially when getting involved with other programs. Pisias asked if the FY2004 plan included the cost of planning for other MSP projects. Evans said yes, a small amount. Larson worried about the odds of a complete shutout on the Arctic-Lomonosov Ridge Expedition. Coffin replied that projections based on historical ice conditions indicated a high probability of success. Evans added that weather conditions would also pose some risk. Larson also asked whether the marine mammal issue presented a problem mostly for expeditions in the U.S. exclusive economic zone. Austin replied that the program would face the same problem all over the

globe. In the absence of further comments, Tamaki asked Pisias and Oda to work on a statement of approval for the committee to consider the next morning (see Agendum 8).

6. Performance Evaluation Committee (PEC-VI) report

Susan Humphris reviewed the terms of reference and listed the eight members of the sixth ODP Performance Evaluation Committee (PEC VI). She cited the specific charges of assessing to what extent ODP had achieved the goals of its long-range plan, examining all aspects of the phase-out program and its impacts on the commencement of the IODP, assessing the provisions to present and preserve the legacy of the program, and assessing the effectiveness of the JOI program management and the JOIDES science advisory structure. Humphris explained that the committee collected input from the international scientific community through a questionnaire and through open sessions held at several locations, and they also examined the phase-out plans presented by JOI and the ODP operators.

Humphris outlined the findings of the committee on the scientific accomplishments of the program, the phase-out and legacy preservation plans, and the effectiveness of the program management and science advisory structure. She noted that the phase-out plans had diminished somewhat in scope with the recent naming of the JOI Alliance to continue as a management organization in the IODP. She also reported that the committee had compiled a number of recommendations with direct implications concerning the fundamental nature of the IODP and its operations, management, and science advisory structure, plus the continuous gathering of its legacy and other more detailed matters. Humphris emphasized the preliminary nature of the findings but expected to finalize the report in the next few weeks.

Tamaki asked when the SPPOC would get to see the PEC VI report. Humphris replied that JOI would receive the report first and draft a response. Bohlen explained that JOI had to see the final document first and draft a response before making the entire package available to others. Austin noted that the IODP would undertake similar reviews. Fukao asked who would take responsibility for responding to any recommendations about the IODP. Humphris said that such recommendations could get forwarded to the IMI and the science advisory structure.

7. IMI requests on evaluating IODP SAS

Tamaki asked Pisias to explain the requests received from the IMI. Pisias stated that the IMI needed guidance for preparing the proposal to submit to the funding agencies. He identified the important topics of developing long-range science plans, assessing how well the program achieved the proposed objectives, and deciding how the OPCOM would conduct its business. Pisias asserted that the OPCOM should function as a committee of the IMI rather than the SAS, but it should always include members from the science community. He suggested that the IMI vice president of operations should serve as the chair of the OPCOM, with definite involvement from the implementing organizations. Tamaki outlined the procedure for discussing these issues and said that he expected to form a set of subcommittees to address them in detail.

7.1 SAS and OPCOM

Larson agreed that the functions of the OPCOM should reside within the IMI rather than in the SAS, and he asked how the IMI would do it. Talwani explained that the OPCOM would take advice from the SAS and develop operational plans in conjunction with the IOs. He agreed that the vice president of operations should serve as the OPCOM chair, with the science vice-president, the SPC chair, the IOs, and perhaps other scientists as regular members. Larson suggested deciding first if the OPCOM would reside in the IMI or the SAS. Austin cautioned that the community might fear losing custodianship if the OPCOM resided with the IMI. Pisias noted that the drilling schedule would always go back to the SPC for

approval and to ensure that it fulfilled the program objectives. Have to decide which group responsible for assessing success. Delaney suggested that moving the OPCOM to the IMI would help in providing the SPC with a better understanding of how operational logistics affect the ability to achieve the scientific goals. Austin wanted to ensure that the OPCOM itself would have enough scientific expertise to make those judgments. Talwani expressed confidence that the SAS would review the OPCOM plans before they go back to the IMI. Kimura stressed the importance of ensuring the achievement of the already endorsed Initial Science Plan and maintaining a good relationship between the OPCOM and the SAS. He also conceded that the complexities of multi-platform operations and the desire for a longer lead-time in planning required stronger leadership from the top. Coffin supported the idea of putting the OPCOM into the IMI and having the vice president serve as chair. He viewed the previous system as clearly flawed because the operator had to guess in advance on the top-ranked proposals and develop operational plans before the ranking and scheduling meeting. Coffin explained that the SPC planned to meet three times each year (e.g., January, May, September) and normally would conduct an annual global scientific ranking in the late spring, thus allowing the OPCOM time to develop plans before the annual scheduling meeting in late summer or early fall.

Tamaki summarized the developing consensus for linking the OPCOM to the IMI and having the vice-president as chair. He stated that the SPC would forward its rankings to the OPCOM and in return receive later recommendations to approve a schedule. Pisias noted that if the OPCOM belonged to the IMI, then the IMI could decide how to establish it and structure it. Schorno asked who created the OPCOM in the first place. Pisias responded that the SPPOC creates committees in the SAS. Austin advised making a contingency plan for the March meeting because the IMI would not yet exist by then. Delaney suggested having separate consensus statements on how the OPCOM would operate for the next meeting and for the future. Larson proposed a single general consensus statement. Tamaki asked for any objections and received none.

SPPOC Consensus 03-12-02: The SPPOC transfers the OPCOM responsibilities from the SAS to the IMI, with the IMI vice president for science operations serving as the chair of the OPCOM.

Coffin explained that the decision could have ramifications for the entire SAS. Humphris asked when the SPC expected to rank the first riser drilling proposals. Coffin answered that the SPC might get two CDP proposals in March, but only to form project-scoping groups and not for ranking. He added that the SPC had already advised establishing another scoping group last September. Taira suggested considering the position of the scoping groups as subcommittees of either the SPC or the OPCOM. Tamaki proposed forming a subcommittee to consider that issue as part of evaluating the entire SAS structure, and he deferred further action until the next day (see Agendum 9). Fukao asked about the function of the subcommittee if the OPCOM moved to the IMI. Tamaki replied that the subcommittee still needed to review the rest of the SAS.

7.2 COI policy

Tamaki introduced the conflict of interest issue and the need to examine what constitutes a conflict, for example in terms of having representatives of the IOs or funding organizations serving in the SAS. Schorno noted a contradiction between the SPC recommendation and the decision by the IMI BoG not to allow certain European representatives to participate as members at this meeting. Coffin clarified that the principles recommended by the SPC referred only to the evaluation of proposals within the SAS at levels below the SPPOC.

Delaney viewed the SPC recommendation as one piece of information for the SPPOC to consider, in addition perhaps to outside opinions. Larson wondered about the possibility of having two different policies for different levels. Coffin stressed the need for guidance now to aid in the ongoing staffing of panels. He also noted that the SPC would possibly conduct a ranking exercise before the next SPPOC meeting. Tamaki proposed forming a subcommittee after returning to this issue the next day (see Agendum 9).

7.3 POC and SOC definitions

Tamaki asked Austin to explain the meaning of platform operating costs (POCs) and science operating costs (SOCs). Austin stated that the operators already interpret these terms differently, and the complexity arises because the IMI must apportion SOCs among the operators, whereas the operators would receive POCs directly from the funding agencies. Allan noted that more guidance might come soon from the funding agencies. Talwani suggested that the SPPOC could still provide advice to the IMI and the funding agencies. Kimura asked if the list of specific POCs and SOCs shown earlier would get revised. Tamaki said yes and proposed forming another subcommittee after returning to this issue the next day (see Agendum 9).

The committee adjourned for the day at 17:30.

Saturday 6 December 2003 08:30-17:30

8. Approve FY2004 and FY2005 Program Plans

Pisias presented a draft statement on approving the program plan. Humphris wondered how the SPPOC would handle matters if the proposed budget did not meet the approval of the funding agencies. Malfait replied that the NSF and the MEXT had not yet discussed the criteria for approving the program plan, but they certainly would not approve it without sufficient resources available to conduct it. Schorno noted that the lead agencies had also agreed to consult with the ECORD because the FY2004 plan included the Arctic project.

Larson worried about the operational difficulties of the Arctic expedition and asked about the fallback plan in case of any serious problems. Coffin cited the chain of checks and balances through the SAS from the Arctic scoping group to the SPPOC. He explained that the scoping group envisioned remaining active throughout the life of the project as well as in the evaluation phase afterward. He also noted that the scoping group included representatives from the IMI and the IOs, and they would report to the SPC in March. Talwani understood that the IMI would have little to say about the FY2004 plan and not get seriously involved until the FY2005 plan. Larson asked who would make the final decision whether to go or not if it just involved a discussion between the ESO and elements of the SAS. Pisias believed that the final decision must lie with the BGS because they would bear the ultimate responsibility for the project. He suggested that the SAS could advise whether the operational plan would achieve the proposed science, but he cautioned against setting a policy or precedent based on this one unusual and complicated project. Austin noted that any late decision to stop would still involve substantial costs because the ESO had to tender the contracts now. Delaney remained concerned about not knowing who would make the final decision for spending a large portion of the total budget. She asked when the ESO would know whether it had a working piston corer to do the science. Evans said by April, but that represented only one of the necessary components.

Humphris asked about the possibility of postponing the project for one year to ensure complete readiness. Evans replied that the offer to provide the *Oden* as a donated vessel applied only in FY2004. Talwani recognized that the IMI would assume responsibility after

April and suggested setting a decision date that still allowed the possibility of postponing the project for one year. He noted that plans in industry often get delayed at increased cost without getting cancelled entirely. Austin suggested waiting at least for the field-testing of the drilling equipment in February and letting the scoping group report to the SPC in March. Larson inquired when the ESO expected to have all of the necessary hardware ready to go. He accepted the possibility of incurring some losses and thought that 1 April seemed like a reasonable cut-off date. Evans described the current situation as going forward, hence any subsequent decision could only mean stopping the project. He did not regard it as particularly helpful to set a specific decision date such as 1 April because the ship conversion would begin in April and final mobilization would not occur until immediately before drilling. He also emphasized that this happened routinely in commercial operations. In terms of mitigating risk, Evans assured everyone that the extremely experienced and talented individuals undertaking this project had certainly planned some allowance for contingencies. Larson conceded that the ESO would know best about the probability of success, but he wondered how they would make the decision to stop if necessary. Evans replied that they would inform the appropriate people when necessary. Pisias concluded that the SAS had instituted a reasonable process involving competent people, and he favored giving the approval to proceed. Malfait commented that platform mobilization costs represent POCs and thus lie outside the responsibility of the SPPOC.

Tamaki asked for any other comments on approving the program plan. Delaney wanted to confirm whether the SPPOC would now approve the plan only for FY2004 or also for FY2005. Tamaki said just for FY2004. Humphris wondered if the SPPOC needed to make another statement endorsing the science priorities put forward for the early part of FY2005. Pisias saw it as implicit in the approval of the FY2004 plan. Malfait asked when the SPPOC foresaw doing the FY2005 program plan. Austin suggested preparing it by June for approval at the July SPPOC meeting. Pisias thought that it would require a ranking exercise in March. Coffin wanted to clarify the timing for producing the FY2005 and FY2006 program plans. He proposed having just one cycle of ranking and scheduling in 2004 to complete the drilling schedules for FY2005 and FY2006, for example by ranking in June and scheduling in August, with OPCOM working in between. Pisias urged beginning the program planning process for FY2006 as soon as possible in 2004. Evans remarked that the ESO would find it difficult to plan for more MSP projects on such short notice.

Austin suggested acknowledging the SAS for its input to the program plan. Delaney thought the statement should refer to the interim IMI rather than to specific individuals. Tsujii noted that microbiology played only a small role in this program plan. He wanted to encourage more activity in that area in the future and suggested considering the importance of public accountability when selecting proposals. Pisias hoped next time to hear more detailed information on the budget.

SPPOC Consensus 03-12-03: The SPPOC thanks and compliments the IMI interim director, the IODP Science Advisory Structure, the iSAS Office, CDEX, the JOI Alliance, and the ESO for providing an excellent program plan addressing the SAS scientific objectives for the initial year of IODP operations. In approving the IODP Program Plan for FY2004, the SPPOC recognizes that the IODP is in a transitional phase and that the definitions and assumptions used in making budgetary assignments (*e.g.*, POCs and SOCs) may not be the definitions used in subsequent program plans. The SPPOC requests an FY2005 Program Plan for consideration at its July 2004 meeting and an FY2006 Program Plan for consideration at its December 2004 meeting.

Austin suggested that the SPPOC could also endorse the process of project scoping and risk management and ask to be kept informed as needed. Larson agreed to endorse the process. Humphris believed that the project scoping and decision-making processes would work well as long as the SPPOC maintained oversight. Falvey stated that the ESO would communicate along the appropriate chain of management through the scoping group, the SPC, the SPPOC, and the IMI. Tamaki suggested drafting another statement recognizing the importance and risks of Arctic drilling to the IODP, and expressing a desire to be kept informed about any developing events.

SPPOC Consensus 03-12-04: The SPPOC endorses the process that includes communication and evaluation amongst a scoping group, the OPCOM, and the SPC and by which planning for the mission-specific platform expedition to the Arctic is taking place. The SPPOC wishes to be kept informed as to the progress in preparation for this expedition and appoints Roger Larson as liaison to the Arctic scoping group.

Kikawa stated that the SciMP had not yet discussed sampling and data handling issues for MSP projects. He added that they would hear a report from the ESO this month and could report to the SPC in March. Evans confirmed that the ESO would discuss its plans initially at the next SciMP meeting and should complete them by the next IOs meeting in February. Delaney noted that the program had scheduled the Arctic project ahead of the normal workings of the SAS. She suggested asking the SPC to charge the SciMP with looking at the Arctic proposal and recommending a standard suite of measurements.

SPPOC Consensus 03-12-05: The SPPOC requests that the SPC charge the SciMP with providing advice on what measurements need to be made by the shipboard and shore-based science parties of the Arctic expedition.

9. Response to IMI requests on evaluating IODP SAS

Tamaki proposed establishing three separate *ad hoc* committees for evaluating the IODP science advisory structure, drafting a conflict-of-interest policy, and developing a definition of platform operating costs (POCs) and science operating costs (SOCs). The committee briefly discussed the proposed charge of each *ad hoc* committee before establishing it through a consensus statement.

SPPOC Consensus 03-12-06: The SPPOC establishes *Ad hoc* Committee-1 to evaluate the current IODP Science Advisory Structure and modify it in light of the IMI requests issued on and after 2 October 2003. The following functions are expected to be implemented into the modified IODP SAS: effective program evaluation and assessment, effective multi-platform and long-term science planning, effective interaction between the IMI and the SAS, and integration with other international earth science programs.

Membership of *Ad hoc* Committee-1 should include three SPPOC members (one serving as chair), the SPC chair, and the IMI vice president for science planning. The committee should meet at the March 2004 SPC meeting and the July 2004 SPPOC meeting, and it should give a mid-term report at the July 2004 SPPOC meeting and a final report at the December 2004 SPPOC meeting. (*Note:* membership of the committee includes Delaney as chair, McKenzie, Tsujii, Coffin, and Larsen. MacKenzie took over as chair on 23 March 2004.)

Suyehiro advised against including the IMI in the same COI policy with the SAS because the IMI would make its own policy. He also asked how the COI committee would find an appropriate international professional legal consultant. Talwani and Pisias agreed that the IMI and the advisory structure should each establish its own COI policy. Coffin raised the question of involving the IOs on the COI committee and noted that two ESO representatives

now serve on SAS panels. Pisias said it would only pose a conflict if they draw a salary from the program. Evans replied that he would prefer to have ESO representatives serve as liaisons not panel members.

SPPOC Consensus 03-12-07: The SPPOC establishes *Ad hoc* Committee-2 to recommend a conflict-of-interest policy for the IODP Science Advisory Structure. The committee should define the principles that the COI policy is intended to address and should draft a COI policy that implements those principles for consideration by the SPPOC. It may be appropriate to consider a two-tier COI policy, one for the SPPOC and its *ad hoc* working groups and one for the SPC, the SAS panels, and *ad hoc* working groups reporting to the SPC. Considerations of conflicts of interests should include, but not be limited to, conflicts that may be held by proponents of drilling proposals; by representatives of funding agencies and implementing organizations; and by representatives of for-profit entities. Professional, commercial, familial, and other personal conflicts of interest should all be considered.

Membership of *Ad hoc* Committee-2 should include the SPPOC, the SPC, and SAS panel members. Professional legal consultation may be required to review the COI policy. The committee should prepare a comprehensive draft of an IODP COI policy in time for the July 2004 SPPOC meeting. (*Note:* membership of the committee includes Fukao as chair, Rea, Le Pichon, Becker, Coffin, and Ildefonse.)

Mevel noted that the ECORD would soon sign a memorandum that defined POCs and SOCs, and she inquired how the efforts of the *ad hoc* committee would affect those definitions. Malfait responded that the memorandum signed by the U.S. and Japan changed the definitions slightly from the version used previously, and the committee should use the latest version as a starting point. Austin recommended moving rapidly on the POCs and SOCs issue in anticipation of developing the FY2005 program plan.

SPPOC Consensus 03-12-08: When IODP is fully implemented, funding will flow in two distinct channels: platform operating costs (POCs) from the (lead) agencies to implementing organizations (IOs) and science operating costs (SOCs) from the NSF through the central management organization (IMI, Inc.) to the IOs and subcontractors, as required. The draft of the FY2004 Program Plan confirms that the existing definitions of POCs and SOCs are too general, leading to unavoidable inconsistencies in the provision of budgets by the IOs to centralized management. The SPPOC therefore establishes *Ad hoc* Committee-3 to develop a robust, program-wide, definition of POCs and SOCs, using the following as inputs: a) the definitions of POCs and SOCs given in the approved NSF-MEXT memorandum, b) the FY2004 Annual Program Plan appendices submitted from the IOs, as evidence of the varied interpretations possible based upon the IWG definitions, and c) input on this issue from NSF and MEXT, as it becomes available.

Membership of *Ad hoc* Committee-3 should include several SPPOC members, representatives from each IO, the IMI, and one or more outside experts. The committee should prepare a written report in time for the July 2004 SPPOC meeting. (*Note:* membership of the committee includes Pisias as chair, Kimura, Kudrass, Janecek, Kawamura, Rack, and Evans.)

Tamaki asked for nominations for the membership of the three committees. He expected to appoint the European members later after contacting them. The committee agreed on the following membership for the new *ad hoc* committees.

Committee 1 on the SAS: Delaney (chair), Tsujii, McKenzie, Coffin, and Larsen. (*Note:* MacKenzie took over as chair on 23 March 2004.)
Committee 2 on the COI policy: Fukao (chair), Rea, Le Pichon, and two SPC or SAS members.
Committee 3 on POCs and SOCs: Pisias (chair), Kimura, Kudrass, Larsen, Kawamura, Rack, and Evans. (*Note:* Janecek later replaced Larsen as IMI representative.)

10. Science Planning Committee report and recommendations

10.1 IODP policies and principles

Coffin reviewed the advisory structure and explained the sources of the recommendations.

10.1.1 Ancillary programs policy

Coffin presented the following SPC recommendation on an ancillary programs policy and explained that the idea originated when the iPC recognized the potential availability of space on the support ships of the Arctic expedition.

SPC Motion 03-09-22: The SPC recommends modifying the iPC-approved policy statement on ancillary programs in the IODP as follows:

iPC Consensus 5-3: Scientific and educational programs are encouraged to develop projects that are ancillary to the IODP Annual Program Plan and apply for permission to execute such projects as part of IODP ~~research~~ expeditions. Proposals for such ancillary programs must be approved by the Science Planning Committee (SPC) chair in consultation with the ~~co-~~chief scientists and implementing organizations of the affected ~~drilling project~~expeditions(s), the IODP Science Policy and Planning Oversight Committee (SPPOC), and by IODP Management International, Inc. (IMI) prior to the development of the annual program plan. For the purposes of assessing proposals for ancillary programs, it is understood that: 1) they must be conducted at no extra cost (in time or money) to IODP scientific operations; 2) they will in no way interfere with, or require the alteration of, drilling plans approved by the IODP; 3) sufficient space must be available on the ~~project~~expedition drilling platform(s) to accommodate needed personnel, equipment, and/or laboratory facilities without interfering with primary IODP drilling, sampling and related operations; and 4) permission to undertake at-sea activities required by ancillary programs must be obtained from the on-site operations manager of the IODP ~~project~~expedition on a day-by-day basis, and such permission can be rescinded at any time as required by operational considerations.

Rea questioned whether the SPPOC would need to see the requests for such programs. Pisias wondered about the necessity of having a formal approval process for such programs if they would not cost any money. Delaney suggested receiving the recommendation because it referred to actions that must take place before the development of the program plan.

SPPOC Consensus 03-12-09: The SPPOC receives SPC Motion 03-09-22 on an ancillary programs policy.

10.1.2 IODP sample and data policy

Coffin reported that the SPC had accepted the sample and data policy developed by the iSciMP and forwarded it to the SPPOC for approval. He explained that the iSciMP had tried to keep the policy as general as possible because of the existing uncertainties about many of the details. Rack viewed the draft policy as generally reasonable but perhaps in need of refining before final approval. Delaney noted that one change involved extending the moratorium period and another concerned the timing of submitting publications. Larson did not want to approve an IODP publications policy similar to the one used by the ODP without

reexamining it. He supposed the picture would look clearer by the next SPPOC meeting. Coffin responded that an SPC working group on publications had polled the international community and would report at the next SPC meeting. Humphris proposed receiving the policy and indicating that it needed further refinement. Coffin stressed that whether or not the SPPOC regarded this policy as acceptable they needed to put some policy in place for the first expeditions beginning in June 2004. Humphris suggested accepting it as an interim policy pending further refinement and revision. Pisias agreed and said that the IMI and the IOs should review it and send it back through the SciMP. Talwani noted that the IMI could not implement anything yet, so some time remained for revising the policy.

SPPOC Consensus 03-12-10: The SPPOC receives SPC Motion 03-09-23 on an IODP sample and data policy and forwards it to the IMI. We accept this as an interim policy. We endorse the general principles laid out in this policy, though we recognize that some aspects require further review and modification. We request that the IMI review this policy with the implementing organizations and revisit it with the SAS as necessary before requesting final approval by the SPPOC.

10.1.3 Obligations of IODP scientists

Coffin presented the following SPC recommendation on the obligations of IODP scientists.

SPC Consensus 03-09-40: The SPC recommends the following policy on obligations of IODP scientists for SPPOC approval.

- Scientific Party members must submit their manuscripts, including data reports, within 20 months post-moratorium.
- Scientists receiving samples or conducting nondestructive analyses must publish a peer-reviewed paper in English and submit their data to the IODP database (*e.g.*, the IODP Information Services Center) or a progress report to the IODP Curator within 36 months of receiving samples or conducting analyses.
- All publications incorporating IODP data or samples must acknowledge the IODP and be submitted to the IODP Curator.

Delaney associated this issue with developing a publications policy and identified the importance in publications of citing the IODP in the keywords rather than as an acknowledgement. She also noted that the policy lacks a requirement for submitting post-cruise data, and the nature of the expedition volume remains undefined. Pisias suggested making the statement even more general by saying submit to the IODP. He also expressed concern that the option of submitting a progress report might open a loophole that would allow participants to not submit data. Allan explained that current U.S. policy requires making data available to get funding, and he wondered if a reasonable compromise might exist for submitting data to the IODP or some suitable international database. Rack agreed that the policy might need further revision before final approval because the IOs did not have substantive input to the advisory panels during the interim period. Coffin confirmed that the SPC recognized some of the shortcomings but still regarded these policies as necessary for interim approval before the first expeditions. Tamaki concluded that this policy should go now to the IMI. Talwani remarked that the IMI merely implements policies and thus needs a clear statement from the SPPOC and the SAS.

SPPOC Consensus 03-12-11: The SPPOC receives SPC Consensus 03-09-40 on the obligations of IODP scientists and forwards it to the IMI. We note certain substantive defects in the policy (*e.g.*, not requiring data submission of all participating scientists in a timely manner, the weakness of requiring acknowledgement statements rather than keyword choice for tracking legacy), as well as others that result from program transition issues (*e.g.*, there is no defined IODP Curator at present). We approve this as an interim policy for the IODP, with the requirement that this be rewritten to a) require post-cruise data submission for all participating scientists to an anticipated IODP database and b) require keyword choices on published manuscripts to enable legacy tracking. We request that the IMI review this policy with the implementing organizations and revisit it with the SAS as necessary before requesting final approval by the SPPOC.

10.1.4 Approve terms of reference for Science Planning Committee (SPC)

Coffin explained that the SPC did not have approved terms of reference for their first meeting and they would hold two more meetings before the next SPPOC meeting. He presented the proposed SPC terms of reference as adapted from the iPC terms of reference and noted that they potentially allowed for reporting directly to the IMI without necessarily going through the SPPOC. Humphris questioned assigning the SPC responsibility for implementing the IODP Initial Science Plan. Delaney noted that although a SPPOC working group would begin reviewing the SAS, the SPC needed terms of reference to follow at its next meeting. She recommended addressing the most important concerns now, such as striking the references to the OPCOM, and letting the working group take care of the rest later. She also expressed concern about ensuring proper oversight in naming the committee membership, including for selecting alternate members. Austin saw a link with the conflict-of-interest policy but said that it probably would not change how the SPC operated. Coffin cautioned that substitutions sometimes happened at the last minute. He also noted that the membership clause needed updating to reflect the European membership, and the vote and quorum clause allowed the possibility that a minority of members could end up approving important matters. Pisias thought that the committee would rarely if ever have only a quorum of members present. Austin responded that it sometimes approached the limit near the end of meetings when members left early. Ellins recalled that it had happened before in the JOIDES advisory structure when accounting for conflicts of interest. Austin wondered if the IOs would still need liaisons to the SPC now that they had representatives on the OPCOM. Pisias believed that they would. Allan recalled that science discussions in the past often needed input from the operators as an information resource.

SPPOC Consensus 03-12-12: The SPPOC approves the revised terms of reference forwarded by the SPC for interim use, with the following modifications: a) revision of the language about the OPCOM as shown in the attachment, given SPPOC Consensus 03-12-02 on the OPCOM, and b) making explicit the requirement that any changes in the SPC member representation (*i.e.*, naming of alternates for members for meetings without prior approval of the alternates by the SPPOC) be reviewed by the SPPOC for approval. In addition, we recognize that the membership of the SPC will change with the addition of new members to the IODP, and the terms of reference will have to be modified accordingly.

10.1.5 SAS conflict of interest statement

10.1.6 Proposal evaluation procedures

Coffin presented SPC Consensus 03-09-42 identifying the recommended principles for a SAS conflict-of-interest policy and SPC Consensus 03-09-43 describing a two-phased procedure for evaluating drilling proposals within the SAS.

SPC Consensus 03-09-42: The SPC endorses the following principles for a SAS conflict-of-interest policy and forwards them to the SPPOC.

- Proponents or other attendees having a significant conflict of interest regarding a proposal must declare that conflict and should not be present when that proposal is discussed.
- Proponents or other attendees having a significant conflict of interest regarding a proposal cannot participate in the ranking of that proposal.
- Participants in the SAS cannot be regular members of more than one panel.
- Representatives of the IMI and implementing organizations cannot serve on SAS panels other than the SPPOC and the OPCOM.

SPC Consensus 03-09-43: The SPC endorses the following two-phase procedure for evaluating proposals and forwards it to the SPPOC.

Phase 1: Watchdog Assignment, Proposal Presentation, and Discussion
All conflicts that might exist with regular and alternate panel or committee members are identified at the outset of Phase 1. The panel or committee chair(s) consult(s) with the SAS Office and assign(s) watchdogs as soon as the relevant proposals are identified. The watchdogs must not have any conflicts with their assigned proposals.

Committee or panel members, liaisons, observers, and guests at the meeting must announce any potential conflict that might appear to exist (*e.g.*, institutional, professional, commercial, or familial relationships with proponents) to the committee or panel chair(s). The chair(s) will determine whether a conflict is considered significant, subject to review by the committee or panel. Any attendees who have a significant conflict with a proposal under review should leave the room during the discussion of that proposal.

Watchdogs will present and discuss their assigned proposals, panel members are invited to provide additional information and to ask questions, and the chair(s) may invite comment or solicit information from guests or observers at the meeting. The panel or committee should discuss the importance of the proposed work relative to achieving the scientific goals of the IODP, the likelihood of significant contributions or discoveries that further our scientific understanding, and the technical challenges or uncertainties that might affect the success of the proposal. They should also discuss the relationship of each proposal to any previous drilling results; however, they should avoid making comparisons to other proposals under review. The chair(s) must ensure compliance throughout the discussion.

Phase 2: SPC Proposal Evaluation, Comparison, Ranking, and Scheduling
All conflicted attendees must leave the room for the entire Phase 2. Voting alternates for conflicted committee members may remain in attendance and will be invited to attend the entire meeting. IODP national committees or consortia should have been consulted regarding how they wish to provide alternate voting representatives.

The committee defines the pool of proposals to be ranked, either by (a) consensus suggested by the chair or (b) vote on each proposal, with a two-thirds vote ensuring inclusion of a proposal in the ranking pool. A watchdog summarizes the discussion of each proposal, emphasizing its strong points and any concerns raised in the earlier discussion. The committee may now discuss the importance of the proposed science relative to other proposals under review.

Following the final discussion, the proposals are ranked from 1 to *N*, where *N* equals the number of proposals selected for ranking and 1 represents the highest rank. Each voting SPC

member completes and signs a paper ballot, and the ballots are archived after the meeting in a sealed envelope. The votes are tabulated and the proposals listed in order of mean ranking, with standard deviations and complete placings indicated.

The SPC selects a subset of the ranked proposals to forward to the OPCOM for developing schedule options, then votes to select a recommended schedule from the option(s) presented by the OPCOM. If the SPC does not approve any schedule option, the OPCOM must provide further options.

The watchdogs provide written summaries of the discussions of each proposal, but the SPC cannot return any proposal to the proponents with a requirement for major revision and further review by the SSEPs.

Allan asked about the definition of implementing organization and whether it referred, for example, to all of JAMSTEC or just to CDEX as a unit within JAMSTEC. Coffin had not seen a formal definition of the term but understood that the program would regard CDEX as the IO and not JAMSTEC. Delaney proposed that the SPC should use the previous JOIDES conflict-of-interest policy until instructed otherwise. Austin advised reviewing the JOIDES policy before accepting it. He regarded it as too strict because of the resulting difficulty in maintaining sufficient expertise in the room when discussing proposals. Larson wondered why the old policy would not work now after it had worked fine for five years. Pisias thought it seemed rational to accept the JOIDES policy for the next two SPC meetings while the SPPOC working group examined the issue. He wanted to avoid any perceived unfair advantage that could arise unless all proponents attended the meetings. Larsen linked the question to the issue of watchdogs and wondered how many SPC members might have a conflict at the next two meetings. Coffin could not say without knowing what proposals the SSEPs would send forward for review. Austin noted that four or five members had a conflict at the last meeting.

Humphris believed that the principles proposed by the SPC adhered to the original intent of the former policy. She could not see any difference between the two and concluded that the debate concerned only a matter of how to interpret the policy. Larson agreed on the similarity of the two policies. Pisias noted that either way still required sending alternates to maintain a quorum for voting. He argued for the stricter policy of excluding conflicted proponents from the entire discussion. Scholl supported the idea. Barron favored adopting a strict policy because the potential harm if the proposal of a conflicted member received a top ranking by chance more than outweighed the efforts and expense of sending alternates to the meeting. Opdyke also cautioned against allowing the perception of influence in the room. Kimura worried that a strict policy would pose problems for the smaller Japanese community, especially considering the large number of proponents on the CDP proposals. Coffin asked if proponents could serve as watchdogs. Humphris said no. Coffin noted that the issue also applied to the SSEPs. Pisias saw it as simpler problem for the SSEPs because they do not compare proposals. Tamaki suggested accepting the JOIDES policy for now and asked Delaney to draft a consensus statement.

SPPOC Consensus 03-12-13: The SPPOC receives SPC Consensus 03-09-42 on COI issues and SPC Consensus 03-09-43 on proposal evaluation procedures. We have initiated an *ad hoc* working group to formulate a conflict of interest policy for the SPPOC and the SAS, and we will consult broadly with the SAS and others in this process. We instruct the SPC and other SAS committees and panels to use the conflict of interest policy as defined by the JOIDES Science Advisory Structure until otherwise instructed by the SPPOC. We recognize that this policy has been interpreted in different ways in the past, and we offer the following specific

guidance on the handling of proposals. In particular, our directions differ from SPC Consensus 03-09-43 in the directions for Phase I of Proposal Handling Procedures. Proponents can be present for general discussion of proposals (*e.g.*, assessment of how proposals fit into the long-range plan, how proposals address long-range objectives). Proponents of proposals under consideration by the respective panels (SSEPs) or committee (SPC) are to be excluded from all discussions evaluating specific proposals and all discussions leading to grouping for forwarding to the SPC (SSEPs) and ranking and voting (at SPC). Proponents of proposals under consideration are therefore excluded from serving as watchdogs on other proposals at SPC meetings. As described in the JOIDES COI policy, it is the responsibility of the committee chair to define and announce stages of discussion. Conflicts of interest, as well as other absences by committee or panel members, require alternates with suitable scientific expertise for conflicted or absent members. This will require due attention by the SPC chair and by other SAS chairs to make such requests in advance of meetings. Sufficient time must be given for the national organizations to nominate alternates, if standing alternates have not been approved in advance, for these alternates to be approved by the SPPOC (for the SPC) or by the SPC (for other SAS committees and panels), and for the alternates to be fully informed of relevant business in time to be prepared for meetings. We recommend that the SAS Office should serve as the point of contact for SAS committee members about meeting attendance. The SAS Office should be responsible for assisting the SPC chair and other SAS chairs in identifying potential conflicts of interests with adequate lead-time. The SAS Office should track other absences of members of SAS panels and committees. The SAS Office should assist the chairs with ensuring alternate representation. If other specific questions or concerns arise in applying this policy, the SPC chair should consult the SPPOC chair and the IMI President for guidance.

10.1.7 Handling of international proposals

Coffin presented SPC Consensus 03-09-44 on the handling of international proposals.

SPC Consensus 03-09-44: The SPC recommends to the SPPOC that the IODP Science Advisory Structure should evaluate, rank, and schedule drilling proposals irrespective of the nationalities of the proponents.

Tamaki agreed that the IODP should allow scientists from non-member countries to submit proposals. Humphris asked if such proponents could participate as chief scientists. Coffin said that it could only happen if a member country or consortium would give up one of their slots.

SPPOC Consensus 03-12-14: The SPPOC accepts SPC Consensus 03-09-44 on the handling of proposals irrespective of the nationalities of the proponents.

10.1.8 Publications policies

Coffin reported that the SPC had established a working group concerning the IODP publications policy and the SciMP had also addressed the issue.

SPC Motion 03-09-24: The SPC establishes a working group to develop recommendations for an IODP publications policy. The working group, co-chaired by Miller and Tatsumi, will report at the March 2004 SPC meeting.

Pisias suggested asking the group to look for real data on citations, the history of publications, and the related impact on the legacy of the program. Humphris cited the difficulty of obtaining such data. Rack acknowledged the possibility of getting data on the number of publications but not citations because the switch to a new program meant having a new publication that would not get tracked by the database services until ten years after it

started. Humphris asked how the efforts of the SPC working group would differ from the SciMP efforts. Coffin explained that the SPC had identified a need for broader community input, and he had just reported this as an information item for the SPPOC. Tamaki concluded that the SPPOC did not need to act on this matter yet.

SPPOC Consensus 03-12-15: The SPPOC receives SPC Motion 03-09-24 on the establishment of a working group on IODP publications. We are very concerned about publication policy for the IODP, and we appreciate the SPC working group activity in this regard. Publication policy is central to defining the obligations of participants, to accomplishing and documenting the scientific achievements of the IODP, and to defining the scientific legacy of the IODP.

10.2 iSAS panel reports

10.2.1 iSciMP

Coffin presented iSciMP Recommendation 02-1-4 on maintaining microfossil reference collections, as endorsed by SPC Motion 03-09-8. He explained the general concept of having microfossil reference collections available for all shipboard and shore-based laboratories.

iSciMP Recommendation 02-1-4: To improve the stratigraphic quality and consistency of shipboard biostratigraphy in IODP, iSciMP recommends that shipboard reference collections of Mesozoic and Cenozoic microfossils as well as digital image atlases and stratigraphic databases are needed and should be available for all IODP platforms and laboratories.

SPC Motion 03-09-8: The SPC endorses iSciMP Recommendation 02-1-4 on maintaining shipboard microfossil reference collections.

Rack stated that it would take considerable effort to duplicate the unique microfossil reference collection used on the *JOIDES Resolution*. He reiterated that the IOs had little involvement in these recommendations during the interim period. Pisias expressed concern about moving into an area of implementation that required input on costs from the IMI and the IOs. He suggested that the SciMP eventually would have to describe exactly what they wanted in greater detail. Delaney suggested that such recommendations should go directly from the SPC to the IMI because the SPPOC did not need to consider such details. Rea agreed, unless they involved significant budgetary effects. Coffin asked if such recommendations should go directly to the IMI for cost analysis before coming to the SPPOC. Humphris clarified that such recommendations should go to the IMI first and then back to the SAS. Larsen asked whether all SAS panels could make recommendations directly to the IMI. Pisias replied that everything should at least go through the SPC. Delaney proposed just receiving the recommendations and asking the SPC to forward them to the IMI, and only those that involved significant costs would eventually come back to the SPPOC for approval. Rack suggested having the SciMP revisit these issues with operator involvement. Coffin noted that some of these issues required action now. Kikawa explained that the SciMP regarded its efforts as finished and would prefer to have these recommendations go directly to the IMI and the IOs for their assessment.

Coffin summarized the iSciMP laboratory working group reports on paleontology, paleomagnetics, and underway geophysics, as accepted by SPC Motion 03-09-12, and he indicated specific items that might involve significant costs.

SPC Motion 03-09-12: The SPC accepts the iSciMP laboratory working group reports on paleontology, paleomagnetics, and underway geophysics and forwards these reports to the SPPOC.

Humphris suggested sending the reports back to the SciMP and asking for a matrix specifying the best timing and estimated costs for each recommended item. Pisias viewed that as a reasonable strategy. Coffin agreed.

SPPOC Consensus 03-12-16: The SPPOC receives SPC Motion 03-09-12 and its referenced reports on paleontology, paleomagnetics, and underway geophysics from the iSciMP. We recommend that the SPC return these recommendations to the SciMP for consideration, assessment, and prioritization by time urgency and scientific importance at their next meeting. This should include consulting with the IO representatives to this panel before forwarding recommendations to the SPC.

10.2.2 iTAP

Coffin briefly summarized iTAP Recommendation 03-2 on developing a hole-problem risk mitigation plan and Recommendation 03-6 on ROV capabilities for IODP drilling vessels, as accepted by SPC Motion 03-09-15 and Consensus 03-09-17, respectively.

iTAP Recommendation 03-2: iTAP recommends that a hole problem risk mitigation plan be developed for every scheduled program. The plan should include near-real-time analyses during the drilling program that uses real-time drilling parameters. These parameters should also be captured into the IODP database to be used to improve future drilling plans.

iTAP Recommendation 03-6: The iTAP recommends that both full-time (non-riser and riser) platforms be outfitted with ROVs.

SPC Motion 03-09-15: The SPC accepts iTAP Recommendation 03-2 on developing a hole-problem risk mitigation plan and forwards it to the SPPOC.

SPC Consensus 03-09-17: The SPC accepts iTAP Recommendation 03-6 on outfitting the fulltime riser and non-riser drilling vessels with remotely operated vehicles (ROVs) and forwards this recommendation to the SPPOC.

Following the same rationale used for the iSciMP reports and recommendations, the SPPOC decided to return these recommendations to the TAP for prioritization and IO input.

SPPOC Consensus 03-12-17: The SPPOC receives SPC Motion 03-09-15 on hole-problem risk mitigation plans and Consensus 03-09-17 on ROVs for drilling platforms from the iTAP. We recommend that the SPC return these recommendations to the TAP for consideration, assessment, and prioritization by time urgency and scientific importance at their next meeting. This should include consulting with the IO representatives to this panel before forwarding recommendations to the SPC.

10.3 iSAS working group reports

Coffin briefly summarized the database, microbiology, and data bank working group reports, indicating particular items that would involve substantial costs. Austin noted that the IMI would have to begin moving very soon on some of these issues. Pisias suggested accepting the database and data bank reports and passing them on to the IMI, and sending the microbiology report back to the SPC. He also noted that the question of how to partition the levels of data management between the IOs and the IMI was still under consideration as part

of the IMI proposal to the funding agencies. Delaney suggested that SPPOC should just receive rather than accept the reports. The committee agreed by consensus to receive all three reports and send only the database and data bank reports to the IMI.

SPPOC Consensus 03-12-18: The SPPOC receives the database, microbiology, and data bank working group reports. We forward the database and data bank reports to the IMI.

11. Appointment of Operations Committee (OPCOM) chair

The earlier decision to shift the OPCOM from the SAS to the purview of the IMI precluded any further discussion of this matter.

12. Handling of non-drilling proposals in IODP

Tamaki noted that the SAS had already received several non-drilling proposals, as indicated by the abstracts shown in the agenda book, and the SPC had asked for guidance on how to handle such proposals in the IODP. Coffin called for a clear policy of what to tell the proponents on how the program would handle these proposals. Humphris believed that the program had to place some limit on the scope of acceptable MSP activities and should not accept such proposals if they just represented an attempt to get funding. Pisias wondered what level within the SAS should decide on rejecting or committing to such proposals. He also noted that the memorandum for MSPs referred to drilling not coring. Barron questioned the need for a statement from the SPPOC if the memorandum defined the operating bounds. Humphris replied that the SPC needed a basis for advising the proponents. Barron still preferred relying on the policy established in the memorandum.

Austin defined MSPs as providing a capability beyond the core capability of the program. He questioned the appropriateness of proponents proposing the use of a particular tool but conceded that different tools would not necessarily do a comparable job of achieving the science. Larson believed that these particular proposals did not qualify as MSP projects because they did not involve drilling and did not require anything beyond the core capability, and he cautioned against opening the door to an influx of such proposals. Delaney thought that the proposals involved interesting science but should not specify the use of Calypso coring. Pisias suggested advising the proponents to turn them into drilling proposals. Coffin confirmed that the SSEPs had done exactly that.

Ludden explained that the IMAGES community sought to gain international coherence and credibility for their program. He had advised them to test whether the IODP would accept proposals for Calypso-type coring on any available platform, not to submit proposals for using a specific platform, and he regarded these proposals as complementary to IODP science. Ludden viewed it as a question of wanting a flexible and truly integrated program or a rigid one controlled by two ships and an occasional MSP. He wondered, for example, if IODP would consider two-months of time donated by France on the *Marion Dufresne* or whether geotechnical vessels that could drill on ridge axes with diamond drilling systems would still fit within the boundaries of MSP projects. Odyke added that the ICDP had developed a means to equip a research vessel with a shallow-water shelf drilling capability. Larsen asked whether the two North Atlantic expeditions involved only piston coring or also drilling. Coffin responded that those expeditions involved penetrating to depths that required the drilling ship. Tamaki recognized the need to promote international involvement. He summarized the discussion and asked Larson to present a consensus statement. The committee modified the statement slightly before agreeing.

SPPOC Consensus 03-12-19: The SPPOC directs the IODP Science Advisory Structure to consider only proposals that require ocean drilling or drilling related capabilities.

13. Identify program liaisons to SAS

Coffin explained that the IODP SAS benefits from the liaisons provided by the funding agencies and by the management and implementing organizations. He requested these entities to identify their various liaisons and observers for each of the SAS panels and committees, as indicated in the blank table presented in the agenda book, and return that information to the iSAS Office by 15 January. Pisias asked if they should fill out the matrix completely and whether the SPPOC should make some statement about this issue. Coffin replied that he did not expect to receive a full matrix because of growing concerns about the increasing number of liaisons and observers at SAS meetings.

14. IODP logo selection process

Tamaki referred to the logo selection process undertaken up to now by the IWG Support Office, as described in a handout distributed at the meeting. Austin noted that the process has not yielded any results after four years of sporadic effort, and he questioned whether the IODP needs a logo at all. Talwani said that the IMI could assume responsibility for selecting a logo, but it would rank as very low priority for now. Tamaki recommended letting the IMI handle this matter as they wish, and the committee thus took no action.

15. Undergraduate student trainee program

John Farrell described the undergraduate student trainee program of the ODP and explained his request for the SPPOC to approve the continuation of the program into the IODP, after modifying it to account for multiple platforms. Tamaki asked how many students participated in the previous program. Farrell replied that the participants had totaled six to eight from the U.S. and another six to eight from mostly Canada and Europe. Humphris suggested allowing the program to continue for now and letting the IMI reevaluate it after awhile. Austin added that this idea would likely get discussed as part of the educational and outreach efforts. Tamaki asked Humphris to draft an endorsement, and the committee agreed by consensus on the following statement.

SPPOC Consensus 03-12-20: The SPPOC endorses the continuation in the IODP of the highly successful ODP Undergraduate Student Trainee Program and recommends implementing this program under the existing ODP guidelines until such time as it can be redefined as part of an overarching IODP educational activity.

16. Any other business

16.1 Review of consensus items

The committee briefly reviewed the consensus items and made no substantive changes.

16.2 Management of SPPOC

Tamaki asked for comments on how the SPPOC or the SAS should conduct its business. Rea suggested modifying the vote and quorum clause of the SPPOC terms of reference to specify a two-thirds affirmative vote of all members present. Austin suggested considering having a vice-chair for the SPPOC. Pisias asked if the SPPOC would need an executive committee or a budget committee. Tamaki replied that he would communicate closely with the IMI on SPPOC business and did not want to form an executive committee. None of these issues generated any further debate or decisions by the committee.

SPPOC Consensus 03-12-21: The members of the IODP Science Planning and Policy Oversight Committee extend our thanks to the committee chair, Professor Kensaku Tamaki, for his careful oversight and direction of our initial meeting in December of 2003. The smooth functioning of this group, especially considering it was the initial gathering of a new international group, is a direct result of his thoughtful stewardship.

SPPOC Consensus 03-12-22: The members of the IODP Science Planning and Policy Oversight Committee extend our thanks to Jamie Austin, IMI Interim Director, for hosting this meeting and for his wide range of contributions to its success. We also thank the staff of the iSAS Office for all their work in making the first SPPOC meeting of IODP a success, and we extend our thanks to the multitude of liaisons and guests for their contributions to our inaugural meeting.

17. Future meetings

17.1 June 2004, Japan

Tamaki tentatively proposed holding the next SPPOC meeting on 13-15 July 2004 in Sapporo, Japan, with only the *ad hoc* subcommittee meeting on the first day. (*Note:* the dates and location subsequently changed to 7-9 July 2004 in Paris, France.)

17.2 December 2004, Europe or U.S.A.

Tamaki tentatively proposed holding the third SPPOC meeting on 2-3 December 2004 somewhere in Europe, before AGU on 13-17 December.