

IODP Science Planning Committee**11th Meeting, 3–6 March 2008****Universitat de Barcelona, Barcelona, Spain*****Science Planning Committee (SPC)***

Jan Behrmann	Leibniz Institute for Marine Sciences, IFM-GEOMAR, Germany
Gilbert Camoin	CEREGE, Centre National de la Recherche Scientifique, France
James Cowen ^a	Department of Oceanography, University of Hawaii, USA
Steve D'Hondt	Graduate School of Oceanography, University of Rhode Island, USA
David Feary	National Academy of Sciences, USA
Gabe Filippelli	Department of Earth Sciences, Indiana University-Purdue University, Indianapolis, USA
Gretchen Früh-Green ^b	Institute for Mineralogy and Petrology, Switzerland
Will Howard [†]	Antarctic Climate & Ecosystems Cooperative Research Centre, University of Tasmania, Australia
Hugh Jenkyns	Department of Earth Sciences, University of Oxford, United Kingdom
Hodaka Kawahata ^c	Ocean Research Institute, The University of Tokyo, Japan
Hiroshi Kitazato ^d	Institute for Research on Earth Evolution (IFREE), JAMSTEC, Japan
Yong-Il Lee (non-voting)	School of Earth and Environmental Sciences, Seoul National University, Korea
Qianyu Li (non-voting)	Laboratory of Marine Geology, Tongji University, China
Katsumi Marumo	National Institute of Advanced Industrial Science and Technology, Japan
Akihiko Maruyama*	National Institute of Advanced Industrial Science and Technology, Japan
Harue Masuda	Department of Geosciences, Osaka City University, Japan
James Mori (Chair)	Disaster Prevention Research Institute, Kyoto University, Japan
Greg Mountain	Department of Geological Sciences, Rutgers University, USA
Naohiko Ohkouchi*	Institute for Frontier Research on Earth Evolution (IFREE), JAMSTEC, Japan
Rolf Pedersen*	Department of Earth Science, University of Bergen, Norway
Larry Peterson	Rosenstiel School of Marine and Atmospheric Science, University of Miami, USA
Carolyn Ruppel	United States Geological Survey, Woods Hole, USA
Hiroaki Sato*	Department of Earth and Planetary Sciences, Kobe University, Japan
Tomochika Tokunaga	Department of Environment Systems, University of Tokyo, Japan
Ben van der Pluijm	Department of Geological Sciences, University of Michigan, USA
Hiroyuki Yamamoto	Department of Marine Ecosystem Research, JAMSTEC, Japan

^aAlternate for Steve D'Hondt during proposal review and ranking^bAlternate for Rolf Pedersen^cAlternate for Hiroaki Sato^dAlternate for Naohiko Ohkouchi^eAlternate for Akihiko Maruyama[†]Provisional non-voting member

*Unable to attend.

Liaisons, Guests, and Observers

Jamie Allan	National Science Foundation (NSF), USA
Angelo Camerlenghi	Stratigraphy, Paleontology and Marine Geosciences, Universitat de Barcelona, Spain
David Divins	JOI Alliance, Joint Oceanographic Institutions, Inc. (JOI), USA
Nobuhisa Eguchi	Center for Deep Earth Exploration (CDEX), JAMSTEC, Japan
Dan Evans	ECORD Science Operator (ESO), British Geological Survey, United Kingdom
Tom Janecek	IODP Management International, Inc., Washington, D.C. Office, USA
Barbara John (SSEP)	Department of Geology and Geophysics, University of Wyoming, USA
Barry Katz (EPSP)	Energy Technology Company, Chevron, USA
Hiroshi Kawamura	IODP Management International, Inc., Sapporo Office, Japan
Masaru Kono (SASEC)	Global Edge Institute, Tokyo Institute of Technology, Japan
Shin'ichi Kuramoto	Center for Deep Earth Exploration (CDEX), JAMSTEC, Japan
Hans Christian Larsen	IODP Management International, Inc., Sapporo Office, Japan
Young-Joo Lee	Korea Institute of Geoscience and Mineral Resources (KIGAM), Korea
Mike Lovell	Department of Geology, University of Leicester, United Kingdom
Alberto Malinverno	JOI Alliance, Borehole Research Group, Lamont-Doherty Earth Observatory, USA
Catherine Mével	ECORD Managing Agency (EMA), Paris Geophysical Institute (IPGP), France
Catherine O'Riordan	U.S. Science Support Program, Joint Oceanographic Institutions, Inc. (JOI), USA

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Toshiyuki Oshima	Ministry of Education, Culture, Sports, Science, and Technology (MEXT), Japan
Dale Sawyer (SSP)	Department of Earth Science, Rice University, USA
Jeff Schuffert	Ocean Drilling Programs, The Consortium for Ocean Leadership, USA
Ralph Stephen (IIS-PPG)	Woods Hole Oceanographic Institution, USA
Bill Ussler	Monterey Bay Aquarium Research Institute, USA
Bonnie Wolff-Boenisch	ESSAC Office, ECORD Science Support & Advisory Committee, France
Yuki Yoshioka	Japan Drilling Earth Science Consortium (J-DESC), Japan
Barry Zelt	IODP Management International, Inc., Sapporo Office, Japan

IODP Science Planning Committee

11th Meeting, 3–6 March 2008

Universitat de Barcelona, Barcelona, Spain

EXECUTIVE SUMMARY (v1.1)

1.3. Approve SPC meeting agenda – highlight action items

SPC Consensus 0803-01: The SPC approves the agenda of its eleventh meeting on 3–6 March 2008 in Barcelona, Spain.

1.4. Approve last SPC meeting minutes

SPC Consensus 0803-02: The SPC approves the minutes of its tenth meeting on 27–30 August 2007 in Santa Cruz, USA.

1.5. Items approved since August 2007 SPC meeting

SPC Motion 0712-01: The SPC appoints David Rea as chair of the Asian Monsoon and Cenozoic Tectonic History Detailed Planning Group (DPG), effective immediately.

van der Pluijm moved, Mountain seconded; 15 in favor (Behrmann, Camoin, D'Hondt, Feary, Filippelli, Jenkyns, Marumo, Masuda, Mori, Mountain, Ohkouchi, Peterson, Sato, Tokunaga, van der Pluijm), 1 opposed (Ruppel), 3 non-voting (Lee, Li, Pedersen).

SPC Motion 0801-01: The SPC approves the following as members of the Asian Monsoon and Cenozoic Tectonic History Detailed Planning Group (DPG) effective immediately: Karen Bice, Peter Clift, Sidney Hemming, Matt Huber, Youngsook Huh, Warren Prell, Harutaka Sakai, Volkhard Spiess, Ryuji Tada, Hongbo Zheng.

Camoin moved, Mori seconded; 12 in favor (Behrmann, Camoin, D'Hondt, Filippelli, Jenkyns, Marumo, Masuda, Mori, Ohkouchi, Peterson, Sato, van der Pluijm), 2 opposed (Feary, Ruppel), 1 abstained (Tokunaga), 1 did not vote (Mountain), 3 non-voting (Lee, Li, Pedersen).

3. IODP Management International, Inc. (IODP-MI) report

3.2. Science operations

SPC Consensus 0803-03: The SPC approves the FY2009 recommended scheduling options presented in the FY2009 IODP Platform Scheduling report.

Recommended expeditions for the *JOIDES Resolution*, assuming the vessel will be available to begin operations in September 2008, proceed as follows:

- Pacific Equatorial Age Transect I (Proposal 626-Full2)
- Canterbury Basin (Proposal 600-Full)
- Wilkes Land Margin (Proposal 482-Full3)
- Pacific Equatorial Age Transect II (Proposal 626-Full2) *plus* Juan de Fuca Flank Hydrogeology cementing operation (Proposal 545-Full3)

Recommended expeditions for *Chikyu* beginning in December 2008 proceed as follows:

- NanTroSEIZE Input Sites *and* Riserless Observatories (related to Proposal 603-CDP and component proposals)
- Asian Monsoon (Proposal 605-Full2) (if feasible for implementation)

The recommended expedition for mission-specific platform (MSP) operations in FY2009 is Great Barrier Reef (519-Full2) starting in September 2009 and spanning the FY2009/2010 transition.

SPC Consensus 0803-04: Should the start date for *JOIDES Resolution* operations slip beyond September 2008 (e.g., to mid-November 2008), the SPC recommends that FY2009 expeditions for the *JOIDES Resolution* proceed as follows:

- Canterbury Basin (Proposal 600-Full)
- Wilkes Land Margin (Proposal 482-Full3)
- Pacific Equatorial Age Transect II (Proposal 626-Full2) *plus* Juan de Fuca Flank Hydrogeology cementing operation (Proposal 545-Full3)
- Bering Plio-Pleistocene (Proposal 477-Full4)

If operational factors preclude scheduling the Bering expedition at the end of the FY2009 schedule, the SPC recommends that FY2009 expeditions for the *JOIDES Resolution* proceed as follows:

- Canterbury Basin (Proposal 600-Full)
- Wilkes Land Margin (Proposal 482-Full3)
- Pacific Equatorial Age Transect II (Proposal 626-Full2) *plus* Juan de Fuca Flank Hydrogeology cementing operation (Proposal 545-Full3)
- Pacific Equatorial Age Transect I (Proposal 626-Full2)

6. IODP Science Advisory Structure (SAS)

6.1. Panel reports

6.1.4. Scientific Technology Panel (STP)

SPC Consensus 0803-05: The SPC accepts STP Consensus 0802-01 on the implementation of the IODP-MI QA/QC Task Force report and forwards it to IODP-MI.

SPC Consensus 0803-06: The SPC accepts STP Consensus 0802-02 on adding an addendum showing those measurements that can affect drilling decisions to the IODP Measurements Document and forwards it to IODP-MI.

SPC Consensus 0803-07: The SPC accepts STP Consensus 0802-03 on intellectual property rights resulting from IODP activities and forwards it to IODP-MI for consideration, noting the request for a clear statement of principles.

SPC Consensus 0803-08: The SPC receives STP Consensus 0802-04 on the proposed establishment of a Legacy Sample Center at the Kochi Core Center. The SPC encourages the continued effort to find ways to maintain the Legacy Samples.

SPC Consensus 0803-09: The SPC accepts STP Consensus 0802-05 related to QA/QC for microbiology and forwards it to IODP-MI for discussion and implementation with the Implementing Organizations (IOs).

SPC Consensus 0803-10: The SPC accepts STP Consensus 0802-06 related to detection and control of contamination during riser drilling, particularly with respect to microbiology, and forwards it to IODP-MI for discussion and possible implementation.

The SPC also endorses the proposal for Rick Colwell to attend the next (July 2008) Engineering Development Panel (EDP) meeting as the Scientific Technology Panel (STP) liaison to initiate discussion of how the EDP can best provide advice on drilling fluids/techniques to minimize adverse impact on interstitial fluids.

SPC Consensus 0803-11: The SPC receives STP Consensus 0802-12 related to how proposals with potential scientific/technological issues can be identified by the Science Steering and Evaluation Panel (SSEP) and forwarded for STP input and comment. The SPC notes that IODP-MI plans to implement measures to address this.

6.1.5. Engineering Development Panel (EDP)

SPC Consensus 0803-12: The SPC receives EDP Consensus 0801-08 on large diameter drill pipe. The SPC notes that large diameter drill pipe is currently being considered by the USIO and CDEX for IODP operations.

SPC Consensus 0803-13: The SPC accepts EDP Consensus 0801-09 on engineering development proposal evaluation.

8. Approval of Science Steering and Evaluation Panel (SSEP) co-chair

SPC Consensus 0803-14: The SPC appoints Akira Ishiwatari as co-chair of the Science Steering and Evaluation Panel (SSEP), effective immediately.

9. Approval of Engineering Development Panel (EDP) chair and vice chair

SPC Consensus 0803-15: The SPC appoints Makoto Miyairi as chair, and Bill Ussler as vice chair of the Engineering Development Panel (EDP), effective immediately.

10. Approval of Site Survey Panel (SSP) vice chair

SPC Consensus 0803-16: The SPC appoints Jin-Oh Park as vice chair of the Site Survey Panel (SSP), effective immediately.

11. Discussion of Tier 1 and 2 concept for forwarding proposals to the Operations Task Force (OTF)

SPC Motion 0803-17: The SPC will send a group of proposals to the Operations Task Force (OTF) with a distinction of Tier 1 or Tier 2. Tier 1 proposals represent a small subset of proposals with very high priority science to be scheduled in the current phase of IODP (i.e., prior to September 2013). Tier 2 proposals are high quality proposals that are available for scheduling by the OTF to complete efficient ship tracks. The four proposals currently residing at the OTF will be assessed in this new designation system and assigned a status of either Tier 1 or Tier 2.

Ruppel moved, Mountain seconded; 15 in favor (Behrmann, Camoin, Cowen, Filippelli, Jenkyns, Kawahata, Kitazato, Marumo, Masuda, Mori, Mountain, Peterson, Ruppel, Tokunaga, Yamamoto), none opposed, 2 abstained (Feary, van der Pluijm), 4 non-voting (Lee, Li, Früh-Green, Howard).

SPC Consensus 0803-18: The SPC endorses an increase in representation to five SPC members on the Operations Task Force (OTF), effective immediately. In addition to Jim Mori, Gabe Filippelli and Jan Behrmann, the SPC appoints Carolyn Ruppel as an SPC representative on the OTF. A fifth SPC member from Japan will be appointed.

14. Global ranking of proposals I

14.1. Select proposal pool to rank

SPC Consensus 0803-19: The SPC defines the pool of proposals to be ranked for possible scheduling in FY2010 and beyond as including 26 of the 34 proposals reviewed at this meeting. The eight exceptions are: 477-Full4 (Okhotsk/Bering Plio-Pleistocene), 551-Full (Hess Deep Plutonic Crust), 552-Full3 (Bengal Fan), 555-Full3 (Cretan Margin), 557-Full2 (Storrega Slide Gas Hydrates), 605-Full2 (Asian Monsoon), 618-Full3 (East Asia Margin), 667-Full (NW Australian Shelf Eustasy).

The SPC excludes Proposal 477-Full4 (Okhotsk/Bering Plio-Pleistocene) from this year's ranking pool because the Bering Sea component resides with the Operations Task Force (OTF) and appears on a schedule for FY2008.

The SPC excludes Proposal 551-Full (Hess Deep Plutonic Crust) from this year's ranking pool so that the proponents' ongoing analysis of recently collected site survey data can be completed to the point that the proposal's conceptual "preliminary" sites are fully characterized as actual sites. It is expected that this proposal will be ready to rank at the next SPC proposal ranking meeting.

The SPC excludes Proposal 552-Full3 (Bengal Fan) and 618-Full3 (East Asia Margin) from this year's ranking pool because these proposal will be considered by the Asian Monsoon Detailed Planning Group (DPG) which meets next week to coordinate, organize and prioritize a drilling plan for these, and two other, proposals.

The SPC excludes Proposal 555-Full3 (Cretan Margin) from this year's ranking pool in response to the proponents' request to allow them to fully analyze recently acquired site survey data and refine site characterization. It is expected that this proposal will be ready to rank at the next SPC proposal ranking meeting.

The SPC excludes Proposal 557-Full2 (Storrega Slide Gas Hydrates) from this year's ranking pool because the committee is waiting for an update to the proposal.

The SPC excludes Proposal 605-Full2 (Asian Monsoon) from this year's ranking pool because this proposal resides with the OTF and tentatively appears on a schedule for FY2009.

The SPC excludes Proposal 667-Full (NW Australian Shelf Eustasy) from this year's ranking pool so that the proponents' ongoing analysis of industry seismic data can be completed to the point that the proposal's conceptual "preliminary" sites are fully characterized as actual sites. It is expected that this proposal will be ready to rank at the next SPC proposal ranking meeting.

15. Nomination of a SPC member for Thematic Review Committee on Ocean Crust Formation

SPC Consensus 0803-20: Based on the criterion that the Thematic Review Committee should assess and summarize IODP's progress on topics for which the program proposed to conduct substantial work, the SPC recommends that the Science Advisory Structure Executive Committee (SASEC) consider forming a Thematic Review Committee on Initial Science Plan (ISP) Theme I: the Deep Biosphere and the Subseafloor Ocean. The SPC also recommends that the SASEC consider delaying the Thematic Review Committee on the seismogenic zone in light of recent changes in the drilling schedule.

17. Input of engineering/technical information in the proposal process

SPC Consensus 0803-21: The SPC responds to the request from the Science Advisory Structure Executive Committee (SASEC Consensus 0801-10) to find ways to better provide technical/engineering information about proposals being considered within the Science

Advisory Structure (SAS). The SPC recognizes that proposal evaluation by the Science Steering and Evaluation Panel (SSEP) and ranking of proposals by the SPC should consider the proposals' science quality and relevance to the Initial Science Plan (ISP). However, having technical and logistical information available to SAS committees, panels and the proponents can improve the effectiveness and efficiency of the proposal process. The SPC recommends the following process:

- IODP-MI will continue to maintain a database on the engineering and logistical issues associated with each proposal in the system.
- IODP-MI will ask the Engineering Development Panel (EDP) and/or the Scientific Technology Panel (STP) (as appropriate) to consider specific technical and logistical issues in the proposals. These panels can provide advice to IODP-MI, other SAS committees, and/or the proponents at any point in the SAS process.
- This does not necessarily require that the entire proposal be forwarded to the panel(s).
- When the SSEP sends a proposal for external review, IODP-MI should review whether further EDP and/or STP input is desirable.

19. Global ranking of proposals II

19.3. Select ranked proposals to forward to the Operations Task Force (OTF)

The following motion did not receive the required affirmative vote of at least two-thirds of all members present and eligible to vote; therefore, this motion did not pass.

SPC Motion 0803-22: After deciding on a cutoff line, above which ranked proposals will be forwarded to the Operations Task Force (OTF) for possible scheduling in FY2010 and beyond, the SPC will consider also forwarding selected proposals below the cutoff line to the OTF.

Filippelli moved, Mountain seconded; 10 in favor (Camoin, Cowen, Feary, Filippelli, Jenkyns, Mountain, Peterson, Ruppel, van der Pluijm, Yamamoto), 5 opposed (Behrmann, Kawahata, Kitazato, Marumo, Masuda), 1 absent (Tokunaga), 1 abstained (Mori), 4 non-voting (Lee, Li, Früh-Green, Howard).

The following motion did not receive the required affirmative vote of at least two-thirds of all members present and eligible to vote; therefore, this motion did not pass.

SPC Motion 0803-23: After deciding on a cutoff line, above which ranked proposals will be forwarded to the Operations Task Force (OTF) for possible scheduling in FY2010 and beyond, the SPC will also consider forwarding selected proposals below the cutoff line to the OTF for scientific and operational purposes.

Filippelli moved, Mountain seconded; 10 in favor (Camoin, Cowen, Feary, Filippelli, Jenkyns, Mori, Mountain, Peterson, Ruppel, Yamamoto), 5 opposed (Behrmann, Kawahata, Kitazato, Marumo, Masuda), 1 absent (Tokunaga), 1 abstained (van der Pluijm), 4 non-voting (Lee, Li, Früh-Green, Howard).

The following motion did not receive the required affirmative vote of at least two-thirds of all members present and eligible to vote; therefore, this motion did not pass.

SPC Motion 0803-24: The SPC forwards the top fourteen (excluding 637-Full2 - New England Shelf Hydrogeology - due to inadequate site characterization) of twenty-six ranked proposals and Proposals 548-Full2 (Chicxulub K-T Impact Crater) and 581-Full2 (Late Pleistocene Coralgall Banks) to the Operations Task Force for possible scheduling in FY2010 and beyond.

Peterson moved, Mountain seconded; 8 in favor (Camoin, Cowen, Filippelli, Jenkyns, Mountain, Peterson, Ruppel, Yamamoto), 6 opposed (Behrmann, Kawahata, Kitazato,

Marumo, Masuda, van der Pluijm), 1 absent (Tokunaga), 2 abstained (Feary, Mori), 4 non-voting (Lee, Li, Früh-Green, Howard).

SPC Motion 0803-25: The SPC forwards the top thirteen (excluding 637-Full2 - New England Shelf Hydrogeology - due to inadequate site characterization) of twenty-six ranked proposals to the Operations Task Force (OTF) for possible scheduling in FY2010 and beyond. Proposal 581-Full2 (Late Pleistocene Coralgall Banks) is also forwarded to the OTF to provide a possible scheduling option for mission-specific platform (MSP) operations.

Proposals forwarded to the OTF:

724-Full	Gulf of Aden Faunal Evolution
601-Full3	Okinawa Trough Deep Biosphere
644-Full2	Mediterranean Outflow
662-Full3	South Pacific Gyre Microbiology
659-Full	Newfoundland Rifted Margin
537B-Full4	Costa Rica Seismogenesis Project Phase B
633-Full2	Costa Rica Mud Mounds
549-Full6	Northern Arabian Sea Monsoon
686-Full	Southern Alaska Margin 1: Climate-Tectonics
537A-Full5	Costa Rica Seismogenesis Project Phase A
654-Full2	Shatsky Rise Origin
522-Full5	Superfast Spreading Crust
581-Full2	Late Pleistocene Coralgall Banks

van der Pluijm moved, Peterson seconded; 12 in favor (Behrmann, Camoin, Cowen, Feary, Filippelli, Kitazato, Marumo, Mountain, Peterson, Ruppel, van der Pluijm, Yamamoto), 2 opposed (Kawahata, Masuda), 1 absent (Tokunaga), 2 abstained (Jenkyns, Mori), 4 non-voting (Lee, Li, Früh-Green, Howard).

SPC Consensus 0803-26: The SPC assigns the following Tier designations for proposals forwarded to the Operations Task Force (OTF) at this meeting:

724-Full	Gulf of Aden Faunal Evolution	Tier 1 Indian Ocean
601-Full3	Okinawa Trough Deep Biosphere	Tier 1 Pacific Ocean
644-Full2	Mediterranean Outflow	Tier 1 Atlantic Ocean
662-Full3	South Pacific Gyre Microbiology	Tier 2
659-Full	Newfoundland Rifted Margin	Tier 2
537B-Full4	Costa Rica Seismogenesis Project Phase B	Tier 1 Pacific Ocean
633-Full2	Costa Rica Mud Mounds	Tier 2
549-Full6	Northern Arabian Sea Monsoon	Tier 2
686-Full	Southern Alaska Margin 1: Climate-Tectonics	Tier 2
537A-Full5	Costa Rica Seismogenesis Project Phase A	Tier 2
654-Full2	Shatsky Rise Origin	Tier 2
522-Full5	Superfast Spreading Crust	Tier 2
581-Full2	Late Pleistocene Coralgall Banks	No Tier designation

The SPC also assigns the following Tier designations to proposals previously residing with the OTF:

505-Full5	Mariana Convergent Margin	Tier 1 Pacific Ocean
545-Full3	Juan de Fuca Flank Hydrogeology	Tier 1 Pacific Ocean
595-Full3	Indus Fan	No Tier designation
677-Full	Mid-Atlantic Ridge Microbiology	Tier 1 Atlantic Ocean

SPC Consensus 0803-27: The SPC decides not to forward Proposal 728-APL (Gulf of Papua Coralgal Barrier Reef) to the Operations Task Force. Instead, the SPC requests that the proponents submit a revised ancillary project letter (APL) with a revised drilling plan based on a single hole, and which meets the specifications of an APL. The APL also needs to clarify the timeline for acquiring site survey data. The revised APL will not be sent to the Science Steering and Evaluation Panel (SSEP) for review, but will be reviewed by the SPC at its next meeting following resubmission of the APL.

20. Platform scheduling

SPC Consensus 0803-28: Should a *Chikyu* riserless operation be feasible during March-May 2009, the SPC designates Proposal 601-Full3 (Okinawa Trough Deep Biosphere) as the first priority expedition for this time slot, and Proposal 605-Full2 (Asian Monsoon) as second priority.

SPC Consensus 0803-29: Due to changing operational constraints and changes in the FY2009 schedule, the SPC rescinds SPC Consensus 0708-33 on approval of the Atlantic Ocean as the top priority ocean basin for FY2010 *JOIDES Resolution* operations. Instead, the SPC approves the Pacific Ocean as the top priority ocean basin for FY2010 *JOIDES Resolution* operations.

23. Review of motions and consensus items

SPC Consensus 0803-30: A thousand thanks to departing SPC member Harue Masuda, from whom the Japanese SPC members learned the importance of speaking, asking, and discussing during the meeting. She definitely helped to change the image of Japanese SPC members. We will never forget her contribution. Without her efforts, we could not have enjoyed last year's SPC meeting in Osaka. We will miss Harue, but we will never forget her skilled Osaka Japanese English!

SPC Consensus 0803-31: The SPC offers its grateful thanks to Rolf Pedersen for his valiant efforts while a member of the Science Planning Committee and his generous and imaginative hosting of the 2006 August SPC meeting in Bergen. His informed observations on petrology, plate dynamics and sea-floor biology – and the interrelationships between these three separate disciplines – have guided the SPC in its decision-making process. He will be much missed.

SPC Consensus 0803-32: The SPC thanks Angelo Camerlenghi and his colleagues for their efforts in hosting the SPC meeting at the magnificent Universitat de Barcelona. The SPC also thanks Miguel López-Blanco for leading a splendid field trip to the surroundings of the Montserrat.

IODP Science Planning Committee

11th Meeting, 3–6 March 2008

Universitat de Barcelona, Barcelona, Spain

MINUTES (v1.1)

Monday	3 March 2008	09:00-17:00
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1. Introduction

1.1. Call to order and self-introductions

Jim Mori called the meeting to order at 09:00. All meeting participants introduced themselves. Mori pointed out that this was an important meeting because the proposals that rank highly will help to decide the science that the program will accomplish up to the end of the current phase of the IODP in 2013. He noted that the program will, in part, be judged on the achievements of the highly ranked proposals from this meeting that are implemented as expeditions. Mori warned that the committee may hear some “doom and gloom” talk, but he stressed that it was important to remain optimistic because, although this is a challenging time for the program, there are still exciting things going on (e.g., *Chikyu* drilling), and important science that needs to be accomplished.

1.2. Welcome and meeting logistics

Meeting host Angelo Camerlenghi welcomed everyone to Barcelona and explained the meeting logistics.

1.3. Approve Science Planning Committee (SPC) meeting agenda – highlight action items

Jim Mori reviewed the meeting agenda and pointed out several important items in addition to the proposal review and ranking, including: agendum 11 - deciding whether to adopt the Tier 1 and Tier 2 concept for proposals forwarded to the Operations Task Force (OTF); agendum 13.2 - approval of the FY2009 expedition schedule; agendum 17 - deciding on a procedure for earlier recognition and review of engineering and technical issues in drilling proposals; and agendum 21 - SPC assessment of Expedition 310 (Tahiti Sea Level). Mori asked if there were suggestions for changes or additions to the agenda. With no changes or additions, the committee approved the agenda by consensus.

SPC Consensus 0803-01: The SPC approves the agenda of its eleventh meeting on 3–6 March 2008 in Barcelona, Spain.

1.4. Approve last SPC meeting minutes

Jim Mori asked for comments or suggested changes to the draft minutes for the tenth SPC meeting (August 2007, Santa Cruz, USA). With no additional comments, the committee approved the minutes by consensus.

SPC Consensus 0803-02: The SPC approves the minutes of its tenth meeting on 27–30 August 2007 in Santa Cruz, USA.

1.5. Items approved since August 2007 SPC meeting

Jim Mori noted that the committee started a discussion by email in October 2007 on the SPC terms of reference, but that any decision on changes to the terms of references had been deferred until this meeting. [*Note:* due to lack of time at this meeting, discussion on the SPC

terms of reference was deferred until the August 2008 meeting]. Mori noted that the committee had decided two items prior to the meeting by email vote: (1) approval of Dave Rea as chair of the Asian Monsoon Detailed Planning Group (DPG); and (2) approval of the membership of the DPG. He noted that during the approval process for the DPG membership there were some suggestions by SPC members that the membership of the DPG should be changed. He explained that an effort was made to add additional members but that, due to late timing, this was not possible. He suggested that while some members may not entirely agree with the choice of DPG members, it was best now to proceed with the members that have been appointed.

SPC Motion 0712-01: The SPC appoints David Rea as chair of the Asian Monsoon and Cenozoic Tectonic History Detailed Planning Group (DPG), effective immediately.

van der Pluijm moved, Mountain seconded; 15 in favor (Behrmann, Camoin, D'Hondt, Feary, Filippelli, Jenkyns, Marumo, Masuda, Mori, Mountain, Ohkouchi, Peterson, Sato, Tokunaga, van der Pluijm), 1 opposed (Ruppel), 3 non-voting (Lee, Li, Pedersen).

SPC Motion 0801-01: The SPC approves the following as members of the Asian Monsoon and Cenozoic Tectonic History Detailed Planning Group (DPG) effective immediately: Karen Bice, Peter Clift, Sidney Hemming, Matt Huber, Youngsook Huh, Warren Prell, Harutaka Sakai, Volkhard Spiess, Ryuji Tada, Hongbo Zheng.

Camoin moved, Mori seconded; 12 in favour (Behrmann, Camoin, D'Hondt, Filippelli, Jenkyns, Marumo, Masuda, Mori, Ohkouchi, Peterson, Sato, van der Pluijm), 2 opposed (Feary, Ruppel), 1 abstained (Tokunaga), 1 did not vote (Mountain), 3 non-voting (Lee, Li, Pedersen).

Ruppel asked if the final report of the DPG would be reviewed by the SPC. Mori explained that the final report will be presented to the SPC. Ruppel said that a presentation is different from a review. Mori suggested that a preliminary report could be distributed to the SPC. Ruppel stated that she wants to ensure that people with relevant expertise (e.g., climate tectonics) not represented on the DPG provide input to the DPG. Larsen noted that DPG reports have not been externally reviewed in the past, though it could be done. Ruppel explained that she would like to try to pursue some mechanism to have nonmembers look at the report before it is finalized. D'Hondt stated that he was against setting a new precedent for external reviews and was leery of creating new hurdles for DPGs that did not exist in the past. He suggested that the DPG chair should get input from outside experts. Larsen noted that the final DPG report needs to be available by the August 2008 SPC meeting. Mori said that he and Larsen will look into a mechanism for getting recommendations from outside experts into the report of the DPG.

1.6. SPC procedures and protocol

1.6.1. Terms of reference, Robert's Rules, ranking/voting procedures

Jim Mori referred to the SPC terms of reference and noted that an SPC decision requires either a consensus or an affirmative vote of at least two-thirds of all members present and eligible to vote. He also pointed out that a quorum comprises two-thirds of the committee. Mori mentioned that the SPC occasionally uses straw votes, which are unofficial and generally do not appear in the minutes (unless specifically requested by the chairperson). He explained that SPC meetings are conducted according to Robert's Rules of Order, and listed some of the salient points from this set of rules. Mori asked the meeting participants to speak slowly and clearly, and to make their point in as few words as possible.

1.6.2. Conflict-of-interest policy and statements

Jim Mori reviewed the conflict-of-interest procedures for the meeting. He noted that the meeting participants should declare all potential conflicts now, including institutional, although in the past the committee had not generally regarded institutional conflicts as real conflicts. The committee members and other meeting participants declared the following direct or potential indirect conflicts of interest regarding the proposals to be reviewed/ranked and proposals remaining at the OTF for scheduling; the chair's ruling follows each member's declaration(s).

SPC member conflicts:

Name	Declaration	Ruling by Mori*
Behrmann	1: Proponent: 557-Full2 (Storegga Slide Gas Hydrates) 2: Institutional: 633-Full2 (Costa Rica Mud Mounds) 3: Institutional: CRISP proposals (537A,B)	1: No conflict 2: No conflict 3: No conflict
Camoin	Proponent: 519-Full2 (Great Barrier Reef) at OTF	Conflict: 1
Cowen	Proponent: 545-Full3 (Juan de Fuca Flank Hydrogeology) at OTF	Conflict: 1
D'Hondt	1: Proponent: 545-Full3 (Juan de Fuca Flank Hydrogeology); 2: Proponent: 662-Full3 (South Pacific Gyre Microbiology) 3: Proponent: 677-Full (Mid-Atlantic Ridge Microbiology); 4: Student of a colleague selected for Bering Sea (477-Full4) science party	1: Conflict: 1; 2: Conflict: 2 3: Conflict: 1 4: No conflict
Howard	Aspiring participant on 482-Full (Wilkes Land Margin) and 638-APL2 (Adelie Drift)	No conflict
Kitazato	Institutional: JAMSTEC; a proponent of 477-Full4 (Okhotsk/Bering Plio-Pleistocene) in same research group	No conflict
Li	Institutional: 618-Full3 (East Asia Margin)	No conflict
Mountain	Proponent: 564-Full2 (New Jersey Shallow Shelf) at OTF	No conflict
Peterson	Institutional: 545-Full3 (Juan de Fuca Flank Hydrogeology)	No conflict
Ruppel	1: Institutional: MIT/USGS; 2: Funded site survey work for several proposals while at NSF	1: No conflict 2: No conflict
Tokunaga	1: Institutional: 724-Full (Gulf of Aden Faunal Evolution) 2: Co-chief for a NanTroSEIZE expedition	1: No conflict 2: No conflict
van der Pluijm	Institutional: 567-Full4 South Pacific Paleogene	No conflict
Yamamoto	Institutional: JAMSTEC proponents on several proposals	No conflict

Observer and liaison conflicts:

Name	Declaration	Ruling by Mori
Sawyer	659-Full (Newfoundland Rifted Margin)	Conflict: 2
Ussler	Institutional: 557-Full2 (Storegga Slide Gas Hydrates),	No conflict

	693-APL S. Chamorro Seamount CORK	
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***Conflicts:**

- 1: Conflicted for discussions of FY2009 scheduling.
- 2: Conflicted for review and ranking of proposals.

2. Agency reports**2.1. Lead agencies report**

Toshiyuki Oshima welcomed Australia to the IODP, explaining that a Memorandum of Understanding (MOU) was currently being negotiated with the National Science Foundation (NSF) and the Japan Ministry of Education, Culture, Sports, Science, and Technology (MEXT). He also noted that an Australian scientist sailed on Expedition 316 (NanTroSEIZE Stage 1 Shallow Megasplay and Frontal Thrusts). Oshima reported that the lead agencies had started discussions with the Chinese Ministry of Science and Technology (MOST) and the Korea Institute of Geoscience and Mineral Resources (KIGAM) with regards to extending the membership of China and Korea in the IODP beyond 30 September 2008. He added that he hoped both China and Korea would continue to participate in the IODP.

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

Toshiyuki Oshima took the MEXT report in the agenda book as read. He added that MEXT was very pleased with the first *Chikyu* expeditions which started last year, and mentioned that many comments had been received. He announced that details of the first NanTroSEIZE expeditions would be reported by CDEX during the Implementing Organization (IO) reports (agendum 4.1).

2.3. U.S. National Science Foundation (NSF)

Jamie Allan took the NSF report in the agenda book as read, and added that the NSF now has a new Assistant Director for Geosciences (starting 1 July 2008): Timothy Killeen, who is currently president of the American Geophysical Union (AGU) and director of the National Center for Atmospheric Research (NCAR).

Allan focused his remaining comments on budget and cost issues. He noted that at the August 2007 SPC meeting he gave an indication of the expected NSF budget for FY2008, but explained that the budget was impacted by a last-minute reduction in NSF funding in the FY2008 Appropriations Bill approved by the U.S. Congress shortly before Christmas. Thus, NSF received a one percent increase rather than the expected healthy increase in FY2008. Allan described this as devastating, but pointed out that savings that had been accrued could be used to reduce the impact. He described the FY2009 budget situation as tighter than he would like it to be.

Allan explained that the United States Implementing Organization (USIO) has received guidance to expect eight months of operations in FY2008 and FY2009, and has been asked at what level services can be provided for eight months. If the USIO cannot operate for eight months, it has been asked to specify how many months it can operate with services at the FY2005 level, or to specify what services can be provided for eight months. He noted that the USIO was currently investigating these issues. He added that the NSF is still saying that it will provide eight months of operations, but services may be significantly cut back, e.g., with fewer technicians and/or fewer measurements made on the *JOIDES Resolution*. Expensive operations may not be possible at all. Allan described this reality as very sobering.

Allan noted that there were many activities external to the IODP underway to try to find additional uses for the *JOIDES Resolution*, which would relieve the NSF of the requirement of paying the very expensive day rate during off time. He added that operating for only eight months per year would also result in significant savings on fuel costs. He pointed out that the

if other uses for the *JOIDES Resolution* can be found during the four months of off time, the NSF can bank the funds otherwise used to pay the day rate, and in future years these funds could be used to increase service levels or length of operations.

Allan described the present as the worst time ever to do any work in a shipyard. He noted that the Jurong Shipyard has \$3B worth of ongoing work, of which the work on the *JOIDES Resolution* accounts for only \$34M. He said that the shipyard was over committed, and this was causing serious quality control issues which the USIO was struggling to overcome.

Howard asked if eight months of operations per year affected the number of expeditions that could be completed. Allan responded that, at this point, there is no change to what has previously been scheduled. D'Hondt observed that slippage of the delivery date of the *JOIDES Resolution* was cutting into the current schedule, and asked if the SPC has plans to address this. Mori explained that Janecek would present plans during his presentation (agendum 3.2). Mountain asked if more details would be forthcoming regarding the nature of the services that may be curtailed. Allan answered that this was still unknown. Ruppel suggested that many in the Science Advisory Structure (SAS) do not understand the seriousness of the situation, and this needs to change. Allan said that an important message is that "this is not ODP anymore", and that the funding situation is very different. Because of the funding problems, he said that the IODP of today is not what was originally envisioned. He added that the NSF encourages the SAS and the SPC to be focused.

Kawahata asked, if the eight months of operations starts in September 2008, when would it end? Allan replied that additional slippage in availability of the *JOIDES Resolution* means the schedule will have to change, and this would be addressed during the discussions on scheduling (agendum 3.2). Feary asked about the timeline for clarifying whether eight months of operations can be supported. Divins replied that this would be addressed in the USIO report (agendum 4.2).

2.4. ECORD Managing Agency (EMA)

Catherine Mével took the EMA report in the agenda book as read, but announced that she had some good news: EMA has money to implement New Jersey Shallow Shelf (Proposal 564-Full2). She also noted that EuroFORUM 2008 ("Achievements and Perspectives in Ocean and Continental Drilling") would take place at the 13-18 April 2008 EGU meeting in Vienna.

Mori commented that, despite the not very encouraging news from NSF, it is important to remember that there are also positive developments in other parts of the program.

2.5. China Ministry of Science and Technology (MOST)

MOST did not send a representative to the SPC meeting. Qianyu Li, while not speaking for MOST, did note that China has money for participating in the IODP or for other ocean sciences, and that it is facing three options: (1) maintaining the same level of membership in the IODP; (2) increasing its contribution to the IODP to a half member or possibly even full member; and (3) developing its own program. Li added that IODP China would be meeting in June 2008 to decide if it will increase its membership level in the IODP. Li mentioned that China is planning for the long term development of ocean drilling, including deciding whether it will develop its own program, but it is not certain if this can be done in the next several years, because at present China does not have the technology to do this. Li also suggested that it is hard for China to coordinate national facilities to focus on a program like the IODP, and thus these two obstacles may prevent China from developing its own program.

Allan noted that because of the increase in member contribution level associated with full IODP implementation, China will have to increase its contribution to remain at its current level of participation in the IODP.

2.6. Korea Institute of Geoscience and Mineral Resources (KIGAM)

Young-Joo Lee took the KIGAM report in the agenda book as read. He added that the Korea was negotiating a new Memorandum of Understanding (MOU) with NSF/MEXT, and hoped to increase its contribution for FY2009-2013. He also reported that Korea will host two SAS panel meetings in 2008: the Science Steering and Evaluation Panel (SSEP) in May, and the Site Survey Panel (SSP) in July, both in Busan.

2.7. Australia-New Zealand IODP Consortium (ANZIC)

Will Howard reported on the new Australia-New Zealand IODP Consortium (ANZIC). He noted that in September 2007 an Australian consortium of universities and agencies received funding to join the IODP as an associate member at 25% of full membership in early 2008. As of February 2008, Australia was joined by New Zealand, which is contributing a further 5%. The Australian and New Zealand lead agencies are the Australian Research Council and GNS Science, respectively. Howard noted that funds for New Zealand's participation in the IODP activities are not co-mingled with Australian funds. He also noted that an Australian Program Member Office (PMO) is being established at the Australian National University (ANU), run by Neville Exon. In addition, Howard will chair a science steering committee. Australia will put forward a slate of candidates for the Canterbury Basin (Proposal 600-Full) and Wilkes Land Margin (Proposal 482-Full3) expeditions, and has already sailed one scientist on *Chiyku* for a NanTroSEIZE expedition.

Feary asked if ANZIC would provide any funding for post cruise science or site surveys. Howard replied no in both cases, but mentioned that for site surveys, Australia does have a national facility research vessel. He also pointed out that, in addition, because of the type of funding mechanism used in Australia, it could not provide salaries for participants while on ships.

3. IODP Management International, Inc. (IODP-MI) report

3.1. IODP-MI report

Hans Christian Larsen reviewed the status of the IODP-MI-funded workshop “Acquiring high to ultra-high resolution geological records of past climate change by scientific drilling”, planned for 29 September–1 October 2008 in Potsdam, Germany. Larsen noted that a report from the thematic science review on climate variability had been presented at the January 2008 SASEC meeting. He also summarized the long range planning workshops completed in FY2006–2007. Larsen summarized the status of the Asian Monsoon Detailed Planning Group (DPG), which was formed as suggested by the SSEP (SSEP Consensus 0705-4), and recommended by the SPC (SPC Motion 0708-27), and which will meet 10-12 March 2008 in Washington, DC, USA.

Larsen also reviewed some activities of the SASEC, noting that the SASEC draft implementation plan document, which was discussed at the August 2007 SPC meeting, has been rewritten without reference to specific scientific focus areas. He also mentioned that at its January 2008 meeting, the SASEC concluded that it would not be practical to implement missions in the current phase (i.e., until September 2013) of the IODP. Larsen mentioned that the lead agencies had asked the SASEC about the wisdom of receiving additional new (or revised) proposals given that the likelihood of scheduling of such proposals before 2013 was very limited. He presented statistics for active IODP drilling proposals, and noted that the number of active proposals has remained relatively constant over the last four years. Larsen stated that new and revised proposals will be important for justifying renewal of the program in 2013.

Larsen briefly reviewed the status of publications and data management, noting that a special issue of *Scientific Drilling*, with abstracts and reports from the 2006 IODP/ICDP workshop

on fault zone drilling, was recently published. He provided an update on the Scientific Earth Drilling Information Service (SEDIS), noting that the IODP-MI is trying to create an entry point for access to the data collected by the different IOs.

Larsen concluded his presentation with a description of the planning efforts and activities that will be associated with renewal of the IODP beyond 2013, including a large community planning meeting in late 2009 (similar to the 1997 CONCORD or 1999 COMPLEX planning meetings).

Referring to SEDIS, John asked if there would be any linkage with the International Continental Scientific Drilling Program (ICDP). Larsen indicated that the ICDP would be the first natural partner, and that discussions with the ICDP were underway. Camoin noted that Larsen's presentation did not mention the sea level workshop held in Salt Lake City, USA in FY2007. Larsen replied that it should have been listed, and noted that he has yet to see a report from the workshop. Camoin noted that the report was almost complete.

3.2. Science Operations

Conflicted meeting participants left the room. Tom Janecek reported on FY2009 IODP platform scheduling, starting with a review of the FY2008 through early FY2010 platform schedules as approved at the August 2007 SPC meeting. He noted that FY2010 platform scheduling would be addressed at the next (August 2008) SPC meeting.

Janecek explained that the delay in delivery of the *JOIDES Resolution* to mid-September necessitated deferring the Bering Sea (Proposal 477-Full4) expedition and moving the Equatorial Pacific Part 2 (Proposal 626-Full2)/Juan de Fuca (Proposal 545-Full3) cementing expedition to the end of the FY2009 schedule. The proposed *JOIDES Resolution* FY2009 schedule starts in mid-September 2008 with Equatorial Pacific Part 1 and proceeds with Canterbury Basin (Proposal 600-Full), Wilkes Land Margin (Proposal 482-Full3), and ending with Equatorial Pacific Part 2/Juan de Fuca cementing operation. He noted that this schedule keeps the core of already planned expeditions in place, retains at least one of the polar expeditions, provides a commitment to Juan de Fuca and to finishing the Equatorial Pacific expedition, and provides contingency for additional slippage in the delivery date of the *JOIDES Resolution* beyond mid-September. Janecek presented two contingency options in case of further slippage in the delivery date, both starting with Canterbury, Wilkes and Equatorial Pacific Part 2/Juan de Fuca cementing expeditions, with one option to finish with Equatorial Pacific Part 1, and the other to finish with one month of idle time in June 2009 followed by Bering Sea. He asked if the latter option was acceptable to the SPC, pointing out that it may in fact not be feasible.

In reply to a question from D'Hondt, Janecek confirmed that the one month idle period was to delay Bering Sea for weather reasons. Peterson asked how much control the program has on the timing of any non-IODP work for the *JOIDES Resolution*, and if this could impact the schedule. Janecek replied that non-IODP work could affect the schedule, and explained that non-IODP work would be scheduled in the context of the Tier 1 and Tier 2 concept (to be discussed under agenda item 11). He described Tier 1 expeditions as the "inviolable programs" that everything else in the schedule is built around. Ruppel asked if there was a cost savings by deferring Mariana Convergent Margin (Proposal 505-Full5)/S. Chamorro Seamount CORK (Proposal 693-APL). Janecek replied that the SPC had decided to move ahead with the non-CORK option for Mariana, and that Chamorro was an add-on based on opportunity in that area. He added that the feasibility of Chamorro was still being investigated.

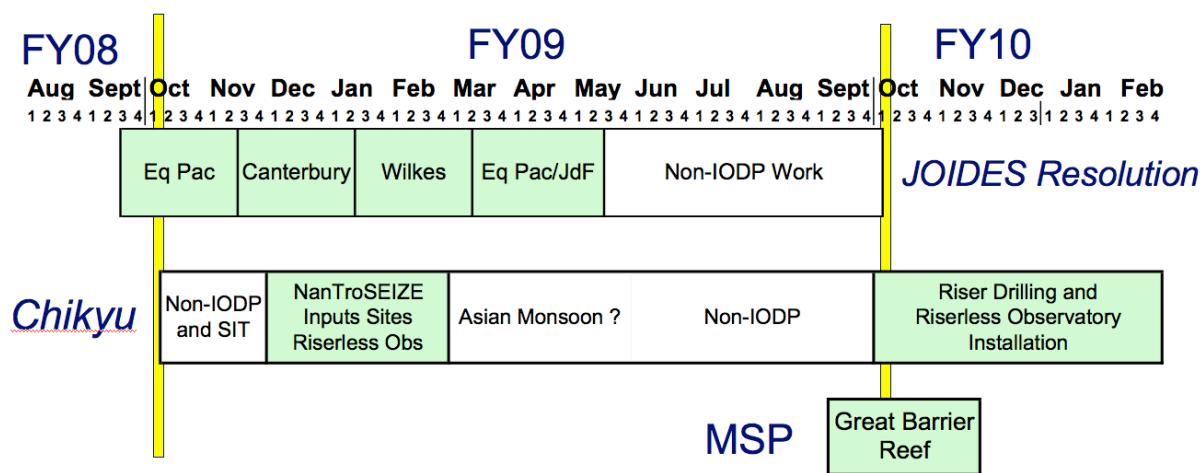
Janecek showed the OTF-recommended changes to the *Chikyu* schedule necessitated by a delay in riser operations until FY2010 due to a change in the Kuroshio current to meander

mode over the riser sites, and other operational issues. He added that CDEX required a System Integration Test (SIT) in early FY2009. This resulted in a delay to the start of the NanTroSEIZE input sites expedition until December 2009. This is tentatively (depending on funding) followed by Asian Monsoon in the middle of FY2009, but Janecek noted that this option could be superseded by other options that may arise at this meeting. He did, however, note that this time slot (March-May 2009) required non-NanTroSEIZE work due to fisheries restrictions in the NanTroSEIZE area. The remainder of FY2009 would be non-IODP work, with NanTroSEIZE riser operations and installation of riserless observatories to start in early FY2010.

Janecek summarized the status of mission-specific platform (MSP) expeditions, with New Jersey Shallow Shelf (Proposal 564-Full2) recommended for FY2008 (delayed from FY2007 due to rig availability issues). He noted that tendering was underway for a new rig with a goal of a May 2008 start date. The recommended FY2009 MSP expedition was Great Barrier Reef (Proposal 519-Full2). Janecek noted that a permit for operations had been approved by the Great Barrier Reef Marine Park Authority (GBRMPA), and that the proposed start date was September 2009.

Janecek concluded by showing a summary figure of FY2009 OTF schedule recommendations.

FY09 OTF Schedule Recommendations



Mori asked if the OTF needed SPC approval for the FY2009 schedule. Janecek replied that, because it contained significant changes relative to the previously approved schedule, SPC approval would be appropriate. Mori noted that this schedule assumes the *JOIDES Resolution* will be available for operations in mid-September 2008, and asked the committee if it approved the schedule. Ruppel asked if Bering Sea could replace Equatorial Pacific/Juan de Fuca. Janecek replied that only three of the Bering Sea sites are currently feasible; others would have to be completed at a later date. He added that Juan de Fuca should be kept in the schedule because if it is not done in FY2009 it will likely never be done. Mori reminded the committee that, prior to the August 2007 meeting, the SPC voted on excluding Proposal 545-Full3 from review, thereby retaining it as a high priority at the OTF for scheduling as soon as possible (SPC Motion 0708-01). Filippelli commented that he liked this schedule, but added that, as this is the International Polar Year, if possible, Bering Sea should be given priority. Janecek replied that the logistics for Bering Sea have not been fully examined, so it is not certain whether it is even a possibility. Kawahata asked, if the non-IODP work was not yet fixed, could Bering Sea be inserted instead. Janecek replied that this was not possible as it

was possible to run only four expeditions in FY2009. He added that it was important to keep a large block of time for non-IODP work. He mentioned, however, should Equatorial Pacific/Juan de Fuca be delayed there was a possibility to do Bering Sea. Howard asked about the weather window for Bering Sea. Janecek replied that it closed after September. D'Hondt commented that there appeared to be no real option to swap Bering Sea for anything on the recommend FY2009 schedule. Janecek agreed.

Feary pointed out that September was not a great time for Great Barrier Reef. Evans replied that, according to ESO's research, September-October was the best period of time.

Feary asked if the two months of training for *Chikyu* would be a recurring issue. Janecek replied that it should not occur again, but was necessary because of a change in the company supplying the crew.

Filippelli asked if the SPC should discuss what has been learned regarding riser drilling and currents, adding that he was shocked to learn how inflexible riser drilling operations were in currents of 2-3 knots. Janecek replied that this was being examined, and that the NanTroSEIZE Project Management Team (PMT) was looking into alternate sites. Mori added that he has asked the PMT to report on long-range NanTroSEIZE planning at the August 2008 SPC meeting. D'Hondt asked the reason for the 3-knot limitation. Janecek replied that it was associated with vortex-induced vibration (VIV), which can seriously weaken the riser depending on the water depth and current speed. He added that VIV also affected the ability to disconnect the riser. D'Hondt asked if oil companies have the same problem. Janecek replied that industry does not drill in 3-knot currents and, besides, has more money to maintain equipment.

Mountain asked, if the delivery date for the *JOIDES Resolution* should slip, would the first Equatorial Pacific expedition be moved to the end of the FY2009 schedule, or would it be possible to insert Bering Sea at the end of the schedule. Janecek replied that the SPC should prioritize options in case of delayed delivery of the *JOIDES Resolution*. Ruppel asked how the SPC can approve a schedule when it wants Bering Sea included if feasible. Janecek reiterated that it would only be possible if there was slippage in the schedule. Mori, in reply to a question from Ruppel, confirmed that the SPC will approve prioritized options in case of slippage in the delivery date of the *JOIDES Resolution*. Janecek added that, in such a case, the OTF would need to consult with the USIO to investigate the feasibility of Bering Sea.

Mori asked if there were further comments on the FY2009 OTF-recommended schedule. Kitazato noted that no dock time was shown for *Chikyu*. Janecek replied that dock time would be incorporated in the non-IODP slot, and that the schedule shown in the figure was generalized.

D'Hondt, returning to the issue of the 3-knot current limit for riser operations, asked if the SPC would be considering contingencies for *Chikyu*. Janecek replied that contingency options would be NanTroSEIZE riserless options. Larsen noted that one of the SASEC's "minimum operational requirements" was to maximize the use of *Chikyu* for riser drilling. Janecek added that, with a switch to a new crew from a new company, it was best to start off drilling in riserless mode.

Mori asked if there was a consensus to approve the OTF-recommended FY2009 schedules, assuming no slippage in availability of the *JOIDES Resolution*. Mountain commented that, since there will be slippage, why not plan to go to Canterbury right away. Janecek pointed out that it was necessary to have a plan in case the ship was available in September, plus a contingency plan. With no further discussion the SPC approved the FY2009 scheduling options presented by Janecek.

SPC Consensus 0803-03: The SPC approves the FY2009 recommended scheduling options presented in the FY2009 IODP Platform Scheduling report.

Recommended expeditions for the *JOIDES Resolution*, assuming the vessel will be available to begin operations in September 2008, proceed as follows:

- Pacific Equatorial Age Transect I (Proposal 626-Full2)
- Canterbury Basin (Proposal 600-Full)
- Wilkes Land Margin (Proposal 482-Full3)
- Pacific Equatorial Age Transect II (Proposal 626-Full2) *plus* Juan de Fuca Flank Hydrogeology cementing operation (Proposal 545-Full3)

Recommended expeditions for *Chikyu* beginning in December 2008 proceed as follows:

- NanTroSEIZE Input Sites *and* Riserless Observatories (related to Proposal 603-CDP and component proposals)
- Asian Monsoon (Proposal 605-Full2) (if feasible for implementation)

The recommended expedition for mission-specific platform (MSP) operations in FY2009 is Great Barrier Reef (519-Full2) starting in September 2009 and spanning the FY2009/2010 transition.

Mori called for discussion on contingency plans should the delivery date for the *JOIDES Resolution* slip significantly beyond September 2008. Janecek redisplayed the two contingencies assuming a delivery date of mid-November 2008:

- 1) Canterbury, Wilkes, Equatorial Pacific part 2/Juan de Fuca, Equatorial Pacific, part 1;
- 2) Canterbury, Wilkes, Equatorial Pacific part 2/Juan de Fuca, idle time (late May-early June 2009), Bering Sea.

Filippelli gave a brief review of the scientific objectives of the Equatorial Pacific and Bering Sea expeditions. Mori asked if completing only one part of Equatorial Pacific would give sufficient results. Philippelli suggested that limited results could be expected in such a case.

Feary suggested that, as Bering Sea (Proposal 477-Full4) would be discussed tomorrow during the proposal reviews, discussions on priorities for contingencies should wait until after then. Mori suggested that if the committee prefers the second option, Proposal 477-Full4 should not be ranked. Alternatively, he proposed that discussions on contingencies could be returned to after going through the ranking process. Ruppel observed that Bering Sea was on the schedule, then came off the schedule, and therefore could be considered as a special case, but she noted that this applies to other proposals as well, and thus it would be unfair to treat it as a special case. Philippelli commented that the Sea of Okhotsk component of Proposal 477-Full4 has been stripped off, so it was still worth discussing that component of the proposal in the review and ranking exercise.

Howard asked what happens with the science party, which has already been selected for Bering Sea, if the expedition is cancelled. Janecek replied that it was up to the Program Member Offices (PMOs) to decide if, at a later date, they wished to forward the same slate of candidates.

Divins stated that it probably was not financially possible to do Bering Sea, even if approved. Mori suggested, however, that the committee should prioritize options based on science. Kawahata observed that the previous North Atlantic expeditions have given very good results, and therefore he favored the second option.

Behrmann suggested there was no point in discussing or deciding on the second option if it had little chance of proceeding. Janecek reminded the committee that the SPC will only be tasking the OTF to look into the viability of Bering Sea. Mori agreed that putting Bering Sea on a schedule may only raise hopes when in fact it is not possible to implement it, but he maintained that the SPC should still prioritize the two options. Janecek commented that Bering Sea would not appear on a schedule unless it is viable and a high priority. Howard opined that Bering Sea should be high priority, calling it more topical than Equatorial Pacific. He noted that Bering Sea has operational restrictions that do not apply to Equatorial Pacific, and suggested another chance may not arise for the former. He asked if adding the Okhotsk component would make any difference on a decision. Janecek stated that there were huge clearance issues with the Okhotsk Sea component.

Mori observed that committee appeared to prefer the second option as a priority for the OTF to investigate. Peterson stated that he preferred Bering Sea, thinking its science impact would be biggest. He also wondered if the clearance issues for Okhotsk were insurmountable, because the quality of science would be enhanced by being able to do both components. But, he added, even Bering Sea on its own would still be his preference for top priority. Allan asked if the SPC would also endorse the first option if the second one was not viable. Mori replied in the affirmative. Mori asked for, and received, a consensus to approve the second option as the top priority FY2009 schedule for the *JOIDES Resolution* assuming the delivery date of the ship slips to mid-November 2008.

SPC Consensus 0803-04: Should the start date for *JOIDES Resolution* operations slip beyond September 2008 (e.g., to mid-November 2008), the SPC recommends that FY2009 expeditions for the *JOIDES Resolution* proceed as follows:

- Canterbury Basin (Proposal 600-Full)
- Wilkes Land Margin (Proposal 482-Full3)
- Pacific Equatorial Age Transect II (Proposal 626-Full2) *plus* Juan de Fuca Flank Hydrogeology cementing operation (Proposal 545-Full3)
- Bering Plio-Pleistocene (Proposal 477-Full4)

If operational factors preclude scheduling the Bering expedition at the end of the FY2009 schedule, the SPC recommends that FY2009 expeditions for the *JOIDES Resolution* proceed as follows:

- Canterbury Basin (Proposal 600-Full)
- Wilkes Land Margin (Proposal 482-Full3)
- Pacific Equatorial Age Transect II (Proposal 626-Full2) *plus* Juan de Fuca Flank Hydrogeology cementing operation (Proposal 545-Full3)
- Pacific Equatorial Age Transect I (Proposal 626-Full2)

Ruppel commented that she was unhappy hearing about schedule changes via rumors. She stated that such information needs to be conveyed to the SPC when it happens. She specifically referred to the dropping of Bering Sea from the schedule, which she described as a major change. Janecek agreed and suggested that such information could be posted in the IODP newsletter and on the IODP web site. Mori noted that the SASEC was also concerned about this issue.

4. Implementing Organization (IO) reports

4.1. Center for Deep Earth Exploration (CDEX)

Shin'ichi Kuramoto provided an update of CDEX activities, focusing on *Chikyu* and the NanTroSEIZE project. He gave an overview of recent *Chikyu* activities, culminating in the start of NanTroSEIZE operations with Expedition 314 on 21 September 2007. He noted that

Chikyu operations were continuous from that time until 5 February 2008. Kuramoto reviewed the NanTroSEIZE project plan for stages 1 through 4, noting that during stage 1a the deepest ever penetration in an accretionary prism (1405 m) was achieved. He added that all NanTroSEIZE core was stored at the Kochi Core Center.

Kuramoto reviewed the results of Expeditions 314, 315 and 316, noting that all were successful and several significant faults were penetrated (including the splay fault), and the plate boundary fault was cored. He mentioned that borehole breakouts indicate that the stress field is parallel to the direction of plate subduction. Indications of methane gas hydrate were encountered. High resistivity areas are possibly occupied by gas hydrates. Coring results show faults and vein structures. Kuramoto showed movies of CT images of the boreholes.

Kuramoto also provided a brief status report on the Kochi Core Center, noting that 84 km of cores from the western Pacific began arriving at the center in September 2007, and the transfer is continuing. He added that cores from *Chikyu* were already at the Kochi Core Center.

Howard asked which core repository would receive cores from MSP expeditions. Kuramoto replied that core distribution was geographically based, so that the Kochi Core Center could receive cores from any platform.

Peterson commented that the CT images were impressive, and asked if the cores were oriented. Kuramoto replied that they were. D'Hondt asked if there were downhole logs corresponding to the CT scans, and if so did they show the same resolution. Kuramoto replied that there were logs obtained from logging while drilling (LWD). Behrmann added that the resolution from LWD was at least one order of magnitude less than the CT images. He also noted that some of the reflectivity is not directly related to anything that would be measured. D'Hondt asked if there are logs that can indicate whether anything is missing over the length of the fault. Behrmann replied that fault zones are usually zones of low recovery, so that cores are usually missing the most tantalizing information obtained from LWD. He added that with CT imaging it is possible to get very detailed stratigraphic information (e.g., sub-centimeter scale). Sawyer stated that the native resolution of LWD is 6 inches (~15 cm), but that a lot of information can be obtained by combining the core with a suite of logs, such as resistivity. John wondered if the fault supposedly imaged in the CT image is definitely a fault, or perhaps an artificial feature resulting from a fault. Kuramoto replied that it was difficult to say. Mountain observed that borehole CT imaging was new to him and wondered where one could learn more about it, such as what it can and cannot measure, and what platforms it can be used on, etc. Kuramoto replied that it was available only on *Chikyu* (as part of standard measurements), and that further information could be obtained from the *Chikyu Hakken* web site.

4.2. U.S. Implementing Organization (USIO)

David Divins gave an update on the status of the *JOIDES Resolution*, describing conversion work completed, underway, and still to be done. He noted that the majority (90%) of the science equipment was complete, with the loggers, LIMS and core splitter nearing completion. Referring to delays in the delivery schedule, Divins noted that, worldwide, shipyards have a large backlog of work. He described a lack of shipyard resources for engineering, QA/QC, and supervision as resulting in rework and schedule delays. He showed the current, tentative, schedule (vessel re-delivery in July, vessel load out in August, and transit to first port call in September), but stressed that these dates were not guaranteed.

Feary asked if the USIO had considered sending a QA/QC engineer to the shipyard. Divins replied that ODL considered sending their own engineering people, but decided not to due to

liability concerns. He noted that ODL does, however, have people in place at the shipyard to monitor the work.

Divins briefly reviewed the USIO budget situation, noting that the USIO had received guidance for FY2008 of \$50.8M for three or more expeditions. A revised FY2008 program plan was in preparation, which would factor in additional costs of \$3.8M for an increase in the day rate of the *JOIDES Resolution*. He noted that the FY2009 budget guidance for the USIO was \$58-60M, with platform operating cost (POC) funding anticipated to be \$55M, again for three or more expeditions. FY2009 would also see the day rate increase by an additional \$3.5M; the day rate in FY2010 would increase by a further \$1.5M. Divins described the primary budget problem as “fixed” costs, i.e., costs which the USIO have no control over, such as the Schlumberger logging contract, fuel costs and day rates, which account for about 75% of total platform operating costs. He showed figures for fixed costs, expedition costs and shore-based costs totaling \$55M for FY2009 based on eight months of operations, four months with the ship tied up at dock, and minimal services and staff, but commented that this was not an option. He added that to stage four expeditions with any kind of science requires more than \$55M.

Divins described two initiatives for alternative funding: (1) an industry sponsored ocean drilling program that would comprise a consortium of industry partners, conduct IODP-like drilling and science in areas of interest to industry, and involve IODP scientists; and (2) a Fugro, ODL, USIO partnership in which the ship would be provided to Fugro for more traditional industry work for at least two to three months per year. In the former, a major issue is to determine who would be responsible for liability. Industry sponsored ocean drilling would not be able to start until 2010. The major benefit of the latter is the relief of ship operation costs.

Katz asked about the level of the industry representatives involved in discussions. Divins replied that discussions were with science people who can talk to vice president-level people. Ruppel commented that it was encouraging that industry people seemed to accept a relatively long term commitment. Divins noted that one concern is that success of an industry sponsored ocean drilling program may lead to industry having to continue to support the IODP for more than four years. D’Hondt wondered if the NSF viewed the formation of an industry sponsored ocean drilling program favorably. Allan said that the NSF is grateful for the efforts of IODP-MI and the Consortium for Ocean Leadership, who (for legal reasons) are not spending IODP contract funds in this effort. Allan added that he assumed renewal efforts for the IODP will be made on the basis of twelve months of operation.

Larsen asked for further information on the second initiative. Divins explained that the USIO was currently discussing a memorandum of understanding with Fugro and ODL that would specify how the arrangement would work. Fugro and ODL would take on the marketing for the ship and find work for it. Divins described initial discussions with Fugro as encouraging and indicated that finding work for the ship should not be a problem. The downside, however, is that there would be absolutely no involvement of the IODP.

Mountain noted that the industry sponsored ocean drilling program is targeting areas of mutual interest with science. He asked who has been consulted for input. Divins explained that initially a small group of six members was formed, but afterwards there would be a workshop to broaden the community input. Mountain suggested that the SPC should be more engaged in the process. He said that currently the SPC is being asked to distinguish between more than twenty-five great proposals, and so will have to make decisions based on non-science issues. He added that the SPC has been relegated to doing other things than providing scientific input, and therefore for the committee to not be asked to participate in selecting the

six people in the small group was an insult to the SPC. Divins replied that his comments were noted. Janecek added that, while individuals may be asked to participate in the industry sponsored ocean drilling program, they would not be asked to participate as representatives of the SPC.

4.3. ECORD Science Operator (ESO)

Dan Evans provided a brief update to the written report in the agenda book. He noted that contract discussions for a platform for New Jersey Shallow Shelf (Proposal 564-Full2) were currently taking place and proceeding satisfactorily. He added that ESO has received permission to drill Great Barrier Reef (Proposal 519-Full2), so that planning for this expedition would now move forward.

Ruppel asked if Evans had any comments on proposal pressure for MSP expeditions. Evans replied that there were no MSP proposals at the OTF, but that could change after this meeting. He added that there were twelve or thirteen MSP proposals in the system, though none are very advanced; however, the SPC will consider three MSP proposals, plus an ancillary project letter (APL) at this meeting. Feary asked for details on the permit restrictions for Great Barrier Reef. Evans replied that the permit expires on 1 November. In addition the Great Barrier Reef Marine Park Authority (GBRMPA) will want someone on board the platform. He added that ESO will work with the GBRMPA to make sure it is satisfied.

5. Science Advisory Structure Executive Committee (SASEC) report

Masaru Kono reviewed the highlights of the January 2008 SASEC meeting: (1) dissatisfaction of the Annual Program Plan approval process led to formation of a standing budget subcommittee to advise the SASEC on budgetary issues; (2) two workshops are planned for FY2008 on high to ultra-high resolution sedimentary records and CO₂ sequestration; (3) the next long term thematic review will be on oceanic crustal structure and formation; (4) the Distinguished Researcher and International Leadership Lecture Series (DRILLS) will see three speakers (Ted Moore, Yoshiyuki Tatsumi, and Bo Barker Jorgensen) give thirty-three lectures in twelve countries; (5) formation of a joint working group to look into closer relations between the IODP and the ICDP; (6) the SASEC decided to suspend calls for mission proposals for the remainder of the current phase of IODP (i.e., until 2013), but at the same time recognized that the mission concept should be considered in the process of renewing the program; (7) the SASEC decided to revise the draft implementation plan by retaining the guiding principles and minimum operational requirements, but deleting the reference to science focus areas, and stressing that the SAS evaluation of proposals should be based on scientific value; and (8) presentation by Manik Talwani on plans for an industry sponsored drilling program.

Kono presented a timetable for renewal of the IODP beyond 2013 as developed by the SASEC. This included: (1) formation of a steering committee in March 2008; (2) request for short papers in January 2009; (3) organization of a large symposium by July 2009; (4) a large symposium to take place in September 2009; and (5) development of a new science plan for the next phase of the IODP by September 2010. Kono added that a solicitation for steering committee members resulted in about 100 nominations. The mandate for the steering committee would be to organize the big symposium, summarize the conference results and write a report, and participate in writing the next science plan.

Ruppel asked how the thematic reviews were chosen. She suggested that the chosen themes do not align with the Initial Science Plan (ISP). Kono replied that oceanic crust, climate and sea level are within the ISP, and, while he conceded that the seismogenic zone may be somewhat outside the ISP, said that it is in accord with the NanTroSEIZE project. He added that it was necessary to have results that can be reviewed, so themes like the deep biosphere

would not make sense for a thematic review. Larsen concurred that the choice of themes for review was based on areas where there are significant results that can be reviewed. D'Hondt suggested that it was possible for progress to be made by means other than dedicated expeditions, and presumed that the reviews look at this as well. Allan suggested that the deep biosphere and seafloor ocean theme could be included in the thematic review on oceanic crustal structure. Allan also asked if the SASEC had looked at whether there are structural issues within the IODP that are hindering progress on the ISP. Kono replied that the SASEC has investigated the SAS structure but did not recommend any profound changes. He added that the lead agencies should provide guidance on what sort of structure it wants. Allan asked if the SASEC, and perhaps the science community, could provide some input. Kono replied that planning for the big symposium in 2009 was the current focus; other issues, such as structure of the program, would have to be returned to at a later date.

Ruppel stated that, more or less, it is already known what will be drilled by 2010. She described this as “not much”, and added that this meant the writing of a new science plan will be based on relatively little drilling, and asked if this was a concern to the SASEC. Kono replied that the SASEC recognizes, and is concerned, about the limited number of results addressing the ISP. He suggested that it may be necessary to quote the achievements of later Ocean Drilling Program (ODP) work.

Filippelli noted that the United States Advisory Committee (USAC) recently had a long discussion about missions. He added there was a sentiment that mission proposals should not just be included in the next phase of the program, but should be a hallmark of the proposal for renewal of the program. He stated he was encouraged to see the SASEC comments regarding missions as a part of program renewal, but expressed concern that not much would actually be done. Kono replied that there were many different opinions within the SASEC on missions. He agreed that there was some merit to having a mechanism such as missions in a new program for accomplishing big projects, but he pointed out that topics for missions must come from the community, not from the SASEC. He added that the SASEC did not have a formal agreement on missions, and has left it up to the community to decide if it wants to propose missions at the big symposium.

Referring to the thematic reviews, van der Pluijm asked if there was a concern that these reviews could end up driving the science in these areas. He asked about the motivation for the thematic reviews. Larsen replied that a bigger driver for renewal is the workshops. He added that experience has shown that it is difficult to do a thematic review shortly after the expeditions are completed, as time is needed for the results to mature. van der Pluijm again asked why the reviews were necessary. Allan noted it has been ten years since planning began for the ISP, and the results that have been achieved may cause a shift in study areas for the next phase of the IODP, thus the reviews may be useful for identifying such shifts.

6. IODP Science Advisory Structure (SAS)

6.1. Panel reports

6.1.1. Science Steering and Evaluation Panel (SSEP)

Barbara John presented a report on the November 2007 SSEP meeting, at which the SSEP reviewed twenty-two proposals, including two ancillary project letters (APLs) and five proposals that had been sent for external review. She summarized the dispositions of the proposals, noting that seven proposals with new or previous external reviews, and one APL, were forwarded to the SPC for review at this meeting. She also reminded the committee of the five-star grouping system used by the SSEP, and noted that five of the proposals forwarded to the SPC received four stars (Proposals 567-Full4, 662-Full3, 669-Full3, 686-Full and 703-Full, one received three stars (Proposal 535-Full6), and one received five stars

(Proposal 724-Full). She also mentioned that one proposal (703-Full, Costa Rica SeisCORK) was flagged for review by the Engineering Development Panel (EDP), while another proposal (658-Full2, North Atlantic Volcanism and Paleoclimate) was flagged for review by the Environmental Protection and Safety Panel (EPSP).

John reported that the SSEP discussed the SASEC's draft implementation plan, and presented the panel's response in SSEP Consensus 0711-3. She also presented the SSEP's recommendation of Akira Ishiwatari as next co-chair (SSEP Recommendation 0711-4).

6.1.2. Site Survey Panel (SSP)

Dale Sawyer presented a report on the January 2008 SSP meeting. He provided an update on the panel's membership. Sawyer noted that the SSP reviewed sixteen proposals including two APLs and one preliminary proposal. He described the site survey status of the ten proposals reviewed by the SSP in January that would be reviewed by the SPC at this meeting. Sawyer noted that current SSP vice chair Yaguchi Yoshikazu is rotating off the panel and thanked him for his service to the SSP and the IODP. He added that the SSP nominated Jin-Oh Park as the next vice chair. Sawyer also mentioned that the next SSP meeting was planned for Busan, Korea in mid-July 2008.

6.1.3. Environmental Protection and Safety Panel (EPSP)

Barry Katz reported on recent EPSP activities, noting that the entire panel had not met since the August 2007 SPC meeting. The panel did, however, approve as requested an alternate site (NAV-1A) for Bering Sea (Expedition 318). Katz noted that the EPSP did hold special meetings in September and October 2007, attended by Japanese EPSP members, to review pore pressure predictions and the casing plan for NanTroSEIZE stage 2 sites, and to review two stage 2 riser sites (NT2-03 and NT2-03C). He reported that, as a result of drilling issues that developed during the review, the panel decided to defer a final decision on the sites until the full panel meets in June 2008.

Katz listed several issues which developed during NanTroSEIZE expeditions, including requests for approval of alternate sites or modified penetration depths (alternate sites NT2-01E and NT2-01F during Expedition 314, alternate site NT1-03D and increased penetration depth at NT2-10A during Expedition 316) and which needed quick decisions by email. He expressed dissatisfaction with this process because EPSP decisions for the alternate sites or modified depths were required without the benefit of a full safety package for review. He recommended that requests for electronic reviews should be accompanied by a complete safety package. Katz also noted a general need for all proposals reviewed by the EPSP to have more formal alternate and contingency sites.

Katz mentioned that the next EPSP meeting is scheduled for 16-18 June 2008 in Hannover, Germany, and that the agenda would include NanTroSEIZE issues and other items based the results of the SPC rankings at this meeting.

6.1.4. Scientific Technology Panel (STP)

Mike Lovell presented a report on the February 2008 STP meeting. He reminded the committee that the main issue at the previous (August 2007) STP meeting was service reduction models necessitated by budget reductions. At the February meeting the STP addressed three main issues: (1) microbiology in the IODP; (2) implementation of a QA/QC task force report; and (3) development of an STP roadmap. Lovell reported that the STP generated eighteen recommendations and consensus statements and one action item. He presented seven draft STP consensus statements for which the STP anticipated a response from the SPC. He also presented suggested SPC responses as prepared by himself and D'Hondt. The suggested responses were, with minor edits accepted by the SPC.

Lovell presented STP Consensus 0802-01 on the implementation of an IODP-MI QA/QC task force report, noting that this raised issues of importance for the IOs to bear in mind.

STP Consensus 0802-01: STP recommends to IODP-MI that the IOs implement the IODP-MI QA/QC Task Force Report. STP asks IODP-MI to request the IOs develop clear implementation plans including default procedures and protocols, and reporting formats (i.e. forms) for documenting deviations to QA/QC, as well as calibration and operation issues.

An important aspect is the interaction of the IOs with STP (and SAS) in reviewing QA/QC for individual expeditions, and with other IOs, IODP-MI and STP in long term monitoring for single platforms and across platforms and shore based facilities.

STP is interested in receiving suggestions for how this engagement between IOs and STP can best be facilitated.

STP also asks that the IOs document the nature of standards used in calibrations to encourage dialogue between IOs and consistency across platforms.

SPC Consensus 0803-05: The SPC accepts STP Consensus 0802-01 on the implementation of the IODP-MI QA/QC Task Force report and forwards it to IODP-MI.

Lovell presented STP Consensus 0802-02 on a request for the IODP-MI to add an addendum to the current Measurements Document, which is already available on the IODP web site.

STP Consensus 0802-02: STP recommends that IODP add an addendum to the current Measurements Document that shows those measurements that can affect drilling decisions.

SPC Consensus 0803-06: The SPC accepts STP Consensus 0802-02 on adding an addendum showing those measurements that can affect drilling decisions to the IODP Measurements Document and forwards it to IODP-MI.

Lovell presented STP Consensus 0802-03 on patent issues. Allan stated that within the contracts to both the IODP-MI and the USIO there is language regarding patents and ownership of knowledge resulting from U.S. contracts, and that by memorandum, this knowledge is open to all members of the IODP. Thus nobody can “patent a bug” that is discovered. Lovell replied that the scientific community needed clarification.

STP Consensus 0802-03: STP recommends that IODP-MI address issues related to intellectual property rights resulting from IODP activities. STP is particularly concerned with respect to novel materials of potential biotechnological value.

SPC Consensus 0803-07: The SPC accepts STP Consensus 0802-03 on intellectual property rights resulting from IODP activities and forwards it to IODP-MI for consideration, noting the request for a clear statement of principles.

Lovell presented STP Recommendation 0802-04 on a microbiology legacy sample center at the Kochi Core Center.

STP Recommendation 0802-04: STP thanks Yuki Morono for his presentation related to the Kochi Core Center (KCC). STP also requests that IODP-MI ask the Microbiology Task Force to consider whether the KCC can be used as a center for preserving legacy samples in liquid nitrogen for the microbiological community.

SPC Consensus 0803-08: The SPC receives STP Consensus 0802-04 on the proposed establishment of a Legacy Sample Center at the Kochi Core Center. The SPC encourages the continued effort to find ways to maintain the Legacy Samples.

Lovell presented STP Consensus 0802-05 on specific proposals related to QA/QC for microbiology

STP Consensus 0802-05: STP recommends that the following specific tasks be implemented for standard measurements:

- SYBR-Green I should be adopted as the dye of preference for standard IODP direct microscopic cell counts.
- Adopt cell-counting standards for a given expedition, i.e., establish cross-scientist controls that will account for counting variability between scientists and samples.
- With respect to depth, randomize the samples for cell counts.
- Provide photographic documentation of routine and unique samples.
- SYBR-Green I should be adopted as the dye for standard IODP microscopic cell counts.
- Adopt cell-counting standards for a given expedition, i.e., establish cross-scientist controls that will account for counting variability between scientists and samples.
- Provide photographic documentation of routine and unique samples.

SPC Consensus 0803-09: The SPC accepts STP Consensus 0802-05 related to QA/QC for microbiology and forwards it to IODP-MI for discussion and implementation with the Implementing Organizations (IOs).

Lovell presented STP Consensus 0802-06 on detection and control of contamination issues during riser drilling. Referring to the SPC endorsement to send STP member Rick Colwell to the EDP meeting as an STP liaison, Schuffert asked if this was for one meeting only. Lovell said yes. Katz, in reference to the forwarding of the recommendation to the IODP-MI, said that, rather than the IODP-MI, it is the operators that should receive the recommendation. Lovell pointed out that that was the implication of the suggested SPC response.

STP Consensus 0802-06: STP proposes that multiple contamination tests using PFT (Perfluorocarbon Tracer), and fortuitous or additional inorganic tracers (e.g., barium, lithium bromide, potassium bromide) be used during riser coring. (Inorganic tracers should not be seen as an alternate to PFT). Sampling of drilling fluids should be scheduled so that microbial communities in this medium can be compared to those in the samples.

Also, STP asks EDP to investigate drilling fluids and/or techniques that are less likely to adversely impact interstitial water geochemistry, rock geochemistry, and microbiology. The best way to initiate this may be to have an appropriate presentation to EDP by Rick Colwell (STP member).

SPC Consensus 0803-10: The SPC accepts STP Consensus 0802-06 related to detection and control of contamination during riser drilling, particularly with respect to microbiology, and forwards it to IODP-MI for discussion and possible implementation.

The SPC also endorses the proposal for Rick Colwell to attend the next (July 2008) Engineering Development Panel (EDP) meeting as the Scientific Technology Panel (STP)

liaison to initiate discussion of how the EDP can best provide advice on drilling fluids/techniques to minimize adverse impact on interstitial fluids.

Lovell presented STP Consensus 0802-12 on the SSEP proposal review form.

STP Consensus 0802-12: STP requests that the SSEP continue to bring to STP's attention any potential issues within a given proposal that would need STP input and comment. This could be through the re-introduction of the Review Form proposed by STP in 2005.

SPC Consensus 0803-11: The SPC receives STP Consensus 0802-12 related to how proposals with potential scientific/technological issues can be identified by the Science Steering and Evaluation Panel (SSEP) and forwarded for STP input and comment. The SPC notes that IODP-MI plans to implement measures to address this.

For informational purposes, Lovell briefly presented a number of additional STP consensus statements and recommendations not requiring an SPC response. He also presented STP Action Item 0802-19 on the Scientific Technology Roadmap, which states that "STP members are encouraged to develop a dialogue with the IODP community in discussing possible additions and changes to the draft scientific technology roadmap. This should include reviewing reports from recent IODP workshops." Lovell, describing the roadmap, noted that it will: examine current technology; identify areas for development; provide advice to evaluate potential impact on IODP science; be an evolving document; provide prioritization and cost-benefit, risk analysis; and enlist community specialist advice as appropriate. Lovell concluded by mentioning that the next STP meeting will be in July 2008 in a to-be specified location (later determined to be Edmonton, Canada) and will focus on QA/QC implementation.

Howard, noting that the first time many scientists see the technology is when they get on a ship, asked if the STP has discussed training as a means to solving QA/QC issues. Lovell replied that the STP cannot suggest training before expeditions due to the financial implications, but that training could take place on the platform. The difficulty with the latter was getting all the scientists on board prior to an expedition early enough so there is time for training. John said that on a hard rock expedition she sailed on, core was sent to the ship and training occurred during a transit. She suggested that it is not hard to do training. Lovell commented that the issue was to make sure the training gets done consistently.

Mori noted Lovell's efforts in consolidating and coming to closure on the many varied issues discussed at the STP meeting.

6.1.5. Engineering Development Panel (EDP)

Bill Ussler presented a report on the January 2008 EDP meeting. He reminded the committee of the EDP mandate, which includes identifying long-term (two to five year lead time) technological needs from active IODP proposals and the ISP, and recommending priorities for engineering developments. Ussler presented a number of consensus statements from the January meeting for both informational purposes and for SPC comment.

Ussler presented EDP Consensus 0801-08 on large diameter pipe. D'Hondt asked if there were depth limits with slim and large diameter pipe. Divins replied that the depth limits were approximately 11 km and 7 km for slim and large diameter pipe, respectively. He noted that the *JOIDES Resolution* will have the infrastructure to handle large diameter pipe. D'Hondt suggested receiving this statement because there was not enough information to weigh the cost and benefits. Divins noted that the real issue was whether the large diameter pipe could even be afforded. Feary asked if the large diameter pipe was a requirement for industry use. Divins replied that discussions with industry on this subject suggest that the lack of large

diameter pipe would not discourage industry use. Malinverno added that if industry is interested in using standard tools, then large diameter pipe is required; however the USIO has special slim tools for narrow pipe. Feary said that he thought the argument for large diameter pipe was it would allow the use of cheaper standard tools. Malinverno added that it would also allow the use of better tools. Mountain suggested that having the large diameter pipe may increase industry interest. Janecek added that it is recognized that large diameter pipe is very desirable, but that the issue is cost, and currently the top priority is just to get the ship in the water. Howard asked how much large diameter pipe can be carried by the *JOIDES Resolution*. Divins answered that the ship can hold more than 3000m of pipe. Filippelli asked if there were any disadvantages to large diameter pipe (e.g., weight, or greater difficulty to pull out of a hole). Divins replied that studies suggest no big difference. D'Hondt wondered if there was a difference in the length of pipe that can be hung. Divins replied that the difference was not significant and that the *JOIDES Resolution* can handle 6 km of large diameter pipe.

EDP Consensus 0801-08: The EDP notes that there are a number of drilling proposals within the SAS that have scientific objectives requiring water samples and specialized or innovative logging tools and experiments which would benefit from or be made possible by large diameter drill pipe. The EDP also understands that the addition of this drill string has limited depth capability.

The EDP strongly recommends the acquisition of large diameter pipe to provide enhanced logging and sampling capability.

The cost benefits of acquisition of large diameter drill pipe versus development of slim-hole versions of existing tools should be evaluated before any new tool developments are pursued.

SPC Consensus 0803-12: The SPC receives EDP Consensus 0802-08 on large diameter drill pipe. The SPC notes that large diameter drill pipe is currently being considered by the USIO and CDEX for IODP operations.

Ussler presented EDP Consensus 0801-09 on engineering development proposal evaluation. Ruppel asked if this consensus statement was related to conflict of interest issues. Ussler replied yes.

EDP Consensus 0801-09: The EDP discussed the merits of conducting cross-comparison evaluations of proposals that address similar technologies. EDP recommends keeping the current evaluation approach that is focused on individual proposals and will not provide comparative evaluations. However, EDP may provide technical comments within the individual evaluations that help distinguish relative merits.

SPC Consensus 0803-13: The SPC accepts EDP Consensus 0801-09 on engineering development proposal evaluation.

Ussler presented EDP Consensus 0801-11 comprising EDP comments on the Long Term Borehole Monitoring System (LTBMS). Feary suggested that the SPC should receive the statement, and expressed concern that the statement includes a request for information, but also seems to presuppose something by its wording. Janecek stated that the LTBMS project is under contract to IODP-MI, and no longer within the purview of the EDP. Ruppel described the statement as somewhat insulting to those working on the project. Ussler withdrew the statement from consideration.

EDP Consensus 0801-11: The EDP recognizes the high quality of the initial planning that has been put into the first version of the Operational Requirements document for deployment of the Long Term Borehole Monitoring System. If possible, EDP requests CDEX give a presentation at the July 2008 meeting on the forward plan for the LTBMS project. The presentation could address project organization, project risk management and associated contingency plans and the project assurance plan, with particular reference to the external verification and peer review of the equipment design and installation procedures. EDP would like to be informed of how risk is minimized in the design. EDP would like clarification of the rationale behind differences in design approach between the hardware for the riser and non-riser systems.

The EDP is concerned about the level of risk associated with the plan to proceed directly from a land test to a full deployment. In particular, consideration of a phased approach that includes an offshore test could reduce two key components of the risk: equipment failure and failure to have a successful installation due to logistical complexity.

6.2. Updates from Program Planning Groups (PPGs)

6.2.1. Industry-IODP PPG (IIS PPG)

Ralph Stephen presented an update on the IIS PPG, which last met in January 2008. Stephen reminded the committee of the mandate of the IIS PPG, which includes defining industrial priority research within the IODP context, promoting development of IODP drilling proposals to address such objectives within the context of the ISP, developing effective links between academic and industry scientists, and facilitating communication and cooperative scientific and technical development activities between the IODP and industry. Stephen mentioned that, while everyone would like to see an industry-collaborative proposal that resulted in industry paying for an expedition (which would cost at least \$10M) based on SAS rules, a gift of \$10M from industry is unrealistic. However, he added that if the IODP platforms are available then industry may be interested in hiring them on a commercial basis.

Stephen noted that at its July 2007 meeting, the IIS PPG recommended that the IODP-MI form an Industry Task Force (ITF), independent of the SAS and the IIS PPG. He added that this is happening with the industry sponsored ocean drilling program (ISODP) concept (see discussion under agenda 4.2). Stephen noted that the IIS PPG is supportive of the ISODP concept, and encourages oil and gas companies to join the IODP-MI as Associate Members and to participate in developing the ISODP. He added that the IIS PPG is concerned that the existing IODP drilling proposals, which were prepared by the academic community at essentially no charge to the drilling program, may be transitioned to the ISODP without adequate compensation to the proponents. He also mentioned that, as the ISODP would be totally independent of the SAS, the IIS PPG can have no role in this proposed program, but he added that the IIS PPG remains the only SAS group specifically charged with liaising with industry. Addressing the future of the IIS PPG, Stephen quoted from a November 2007 email received from SPC chair, Jim Mori, which mentioned that the SPC “views the membership of the IIS-PPG as a valuable connection with industry scientists, which in the current climate of reduced program funding could be of major help to the program”. Stephen asked how the IIS PPG, or a new SAS group based on the IIS PPG, could help to foster new ties between the IODP and industry. He pointed out that industry-IODP interactions have a different style in different countries, so that any future industry liaison panel would need to recognize this diversity as a strength. Stephen provided justification for a future industry liaison panel, noting: (1) the IIS PPG remains the only SAS committee specifically charged with industrial liaison duties; (2) the IIS PPG would like to continue to play a role in nurturing IODP drilling proposals, but by encouraging the development of joint industry-academic consortia; and (3) an IODP industry liaison panel should be a standing committee of the IODP.

Howard, referring to the remark addressing concern over intellectual property rights of existing proposals, asked if there are proposals in the system that industry is interested in. Stephen replied that, to his knowledge, there were none. He also mentioned that when a new industry liaison panel was suggested by the IIS PPG in July 2007, the idea was that the group would be totally commercial, and would generate their own proposals. He added that since the January meeting, the IIS PPG has not gone back to the idea of looking at existing proposals to see if there are any that industry might be interested in. Evans mentioned that at the recent ISODP workshop in Houston, the abstracts of various IODP drilling projects were looked at (but not the entire proposals, which remain confidential). Sawyer concurred, adding that industry has some interest in long-term science, but there is no plan to take over or co-opt existing proposals. He mentioned that industry may be interested in contacting the proponents directly to discuss possible collaborations. Janecek added that his discussions with Talwani suggested that, as the ISODP process moves forward, the people that would be contacted to write proposals are the people that have scientific interest in those areas. Katz suggested that while many industry scientists may be interested in IODP scientific proposals, there is no “industry view”, especially as industry exists only to make money. He added that the people that control the money have to be convinced that a problem, which is hurting a company financially, can be solved. Stephen replied that none of the proposals looked at by the IIS PPG would be worth industry investing \$10M in to see completed. Mori called an end to discussions, promising to return to the subject of collaboration with industry later in the meeting; however, this was not possible due to a lack of time.

7. International Continental Scientific Drilling Program (ICDP) Report

Jan Behrmann gave a status report on the ICDP. As of October 2007, the ICDP had received 183 proposal including 43 proposals for workshops and 21 for drilling projects. He reported that the ICDP membership is growing, with several countries preparing to join, or interested in joining. He noted that because membership contributions are very low, the ICDP is very poor compared to the IODP. However, with the ICDP the country that hosts a drilling project is expected to contribute significantly to the funding. Behrmann described several recent ICDP workshops: Drilling the North Anatolian Fault (April 2007, Istanbul, Turkey) – he pointed out that the ICDP community would like the ocean drilling community to become interested in this area; Borehole Monitoring at the Nankai Subduction Zone (August 2007, Nagoya, Japan); Mjølner (impact crater) Scientific Drilling (September 2007, Longyearbyen, Norway); Drilling to Decipher Long-term Sea-level Changes and Effects (October 2007, Salt Lake City, USA). Behrmann briefly described two ongoing drilling projects: the Fenoscandian Arctic Russia-Drilling Early Earth Project (FAR-DEEP); and the San Andreas Fault Observatory at Depth (SAFOD) project. Behrmann also described several upcoming drilling projects: Iceland Deep Drilling Project scheduled for 2007-2010; Lake Elgygytgyn Drilling Project (impact crater in northeastern Russia), with pilot holes planned for early 2008 and main wells planned for winter 2009; Laguna Potrok Aike Drilling Project in Patagonia, Argentina planned for Fall 2008; and the Lake Van Drilling Project in eastern Turkey. Behrmann reported that the ICDP will be getting its own drill rig in the future, called InnovaRig, which will be able to drill to 5 km depth. He noted that a shakedown test of the new rig involving a geothermal application not related to the ICDP was currently underway. He concluded by noting that the ICDP strongly desires to develop closer ties with the IODP, and pointed to the special issue of *Scientific Drilling* on the fault zone drilling workshop (May 2006, Miyazaki, Japan) as one such step. He suggested that, while the programs cannot be merged, there are common issues on land and in the oceans (e.g., fault zones) so the programs can be run in synergy.

Kitazato asked if the ICDP had any connection to the ice drilling program (e.g., Lake Vostok drilling). Behrmann replied that the ICDP had no connection with ice drilling at Lake Vostok, noting that the ICDP had made a decision to drill in rocks, not ice, so there was no ice coring within the framework of the ICDP. Kitazato suggested that an exchange of information between the ICDP and the ice drilling community would be important for climate change and other topics. Behrmann pointed out that this is happening, but there is no formal relationship between programs.

Camoin noted that at the April 2008 EGU meeting, the IODP and ICDP will organize a EuroFORUM general session with speakers from both programs, with several topical sessions during the whole week of the EGU. He noted that this shows the strong link between the two programs. Mével added that the EuroFORUM would be followed by a joint town hall meeting.

Ruppel noted that the cost model for the ICDP is extremely different compared to the IODP, with more principal investigator (PI) oriented projects. She asked if there were other differences. Behrmann suggested that Chicxulub is a model for bringing the two programs together. He added that many of the more costly ICDP projects depend heavily on the willingness of national funding organizations to bear the million dollar scale cost, and without this support a project will not happen. Behrmann explained that a project which ranks highly within the ICDP Science Advisory Group (SAG) is frequently successful with the funding organizations. Larsen added that in addition to funding, a major difference between programs is ownership of the core, and how it is held and distributed.

8. Approval of Science Steering and Evaluation Panel (SSEP) co-chair

The SPC briefly discussed the SSEP recommendation of Akira Ishiwatari as a new co-chair of the SSEP. His curriculum vitae had been distributed to the committee prior to the meeting. SSEP co-chair Barbara John noted that SSEP Recommendation 0711-4 nominated Ishiwatari for next co-chair. John added that Ishiwatari is an ophiolite petrologist who has been very helpful, diligent and perceptive as panel member. Mori asked for a consensus to appoint Ishiwatari as co-chair of the SSEP.

SPC Consensus 0803-14: The SPC appoints Akira Ishiwatari as co-chair of the Science Steering and Evaluation Panel (SSEP), effective immediately.

9. Approval of Engineering Development Panel (EDP) chair and vice chair

The SPC briefly discussed the EDP recommendations of Makoto Miyairi and Bill Ussler as new chair and vice chair, respectively of the EDP. Their curricula vitae had been distributed to the committee prior to the meeting. Prior to discussions, Ussler noted that the two nominees were chosen by consensus of the panel. Ussler then left the room for this agenda. Ruppel noted that she has known Ussler for fifteen years, and he is very knowledgeable, and obviously selected because he was the right person for the job. Mori asked for a consensus to appoint Miyairi and Ussler as chair and vice chair, respectively, of the EDP.

SPC Consensus 0803-15: The SPC appoints Makoto Miyairi as chair, and Bill Ussler as vice chair of the Engineering Development Panel (EDP), effective immediately.

10. Approval of Site Survey Panel (SSP) vice chair

The SPC briefly discussed the SSP recommendation of Jin-Oh Park as new vice chair of the SSP. His curriculum vitae had been distributed to the committee prior to the meeting. SSP chair Dale Sawyer noted that Park had previously been on the SSP, is well known to most members of the panel, and was the consensus choice of the panel. He added that Park's expertise is reflection and refraction seismology. Mori asked for a consensus to appoint Park as vice chair of the SSP.

SPC Consensus 0803-16: The SPC appoints Jin-Oh Park as vice chair of the Site Survey Panel (SSP), effective immediately.

11. Discussion of Tier 1 and Tier 2 concept for forwarding proposals to the Operations Task Force (OTF)

Jim Mori gave a presentation on the motivation for a new Tier 1 and Tier 2 classification system for proposals forwarded to the OTF. He started by noting that prior to the August 2007 SPC meeting there were twenty-three proposals residing with the OTF and sixteen proposals residing with the SPC. In August 2007, the SPC looked at thirteen proposals, with the result that three (plus one APL) were left with the OTF and ten were returned to the SPC. Mori suggested that the three left with the OTF should be considered as Tier 1 proposals. At the current meeting, the SPC will continue the process of looking at all proposals residing with the SPC and OTF. In total, including new proposals sent to the SPC from the SSEP, thirty-five proposals, including one new APL, would be considered by the SPC at this meeting. Mori noted that the purpose of the proposal evaluation was to provide the OTF with clear guidance about priorities of proposals sent to the OTF, and to establish important milestones for the current phase of IODP (from now until 2013). In addition Mori noted that the SASEC endorsed the periodic retraction of proposals from the OTF and re-ranking of these proposals to ensure that the highest priority scientific programs are being put forward for scheduling (SASEC Consensus 0801-09).

Mori also reviewed the SPC proposal review and ranking procedures. He noted that each review was nominally allotted twenty-five minutes, five minutes less than previous ranking meetings due to the large number of proposals to be reviewed. The SPC would decide which proposals to include in the ranking pool. Each member would secretly rank each proposal from 1 to N (N being the number of proposals to rank) on a paper ballot provided by the IODP-MI science coordinators. The committee members would have Wednesday evening to do the ranking. The science coordinators would tabulate and present the results on Thursday morning, after which the SPC would decide which subset of proposals to forward to the OTF for developing future platform schedules.

Mori described the motivation for a new Tier 1 and Tier 2 classification system for proposals sent to the OTF. He noted that: (1) for scheduling purposes, the SPC needs to identify a few high priority proposals which are likely to produce the milestone results of phase two of the IODP; (2) the OTF needs more flexibility (short-term response) in developing approved platform schedules, especially for considering the scheduling of non-IODP work; and (3) currently there is a conflict between the OTF need for short-term response and long-term planning of complicated and expensive expeditions.

Mori described the key elements of the proposed Tier 1 and Tier 2 concept: (1) proposals sent to the OTF are designated as Tier 1 or Tier 2; (2) the OTF develops schedules with high priority on Tier 1 proposals; (3) Tier 2 proposals fill out the schedule to make efficient ship tracks; (4) schedules developed by the OTF are approved by the SPC; (5) the OTF can later make changes to the schedule that involve Tier 2 proposals without full SPC approval; and (6) changes related to the schedule involving Tier 1 proposals require approval of the entire SPC.

Janecek added that there should be a pool of Tier 1 and Tier 2 proposals within each ocean basin. He noted that, if possible, the Tier 2 proposals for each ocean basin should be prioritized. He also suggested that the proposals should remain with the OTF for three years, after which, if not scheduled, they would return to the SPC for re-ranking.

Tokunaga, referring to the fourth element of the tier concept (the OTF can make changes to the schedule involving Tier 2 proposals without full SPC approval) asked for clarification on what this meant. Mori explained that, up until now, every change in the schedule required full SPC approval; with Tier 2 proposals that idea is that the OTF can make changes without requiring approval of the full SPC. He added that the number of SPC members on the OTF would increase with the tier concept, but the exact number needed to be determined.

Howard asked about the need for a tier concept. He wondered why the proposal ranking is not used for scheduling. Janecek explained that there was a need to identify Tier 1 proposals, which represent the science that “needs to be done” prior to 2013. The others (Tier 2) are used to fill out the schedule. He added that the current procedure was *ad hoc*. Janecek also suggested that the tier concept should provide more flexibility for scheduling, but added that as the concept has not been tried before it may need some fine tuning over time.

Discussion was terminated by Mori due to a lack of time, but the committee returned to this topic on Tuesday morning.

Zelt asked, with the tier concept, how many Tier 1 proposals would be appropriate for each ocean basin. Janecek replied that the number of proposals that could be completed in the next four years has to be considered; he suggested one or two Tier 1 proposals per ocean basin would be appropriate. Mori opined that the Tier 1 proposals should probably not stay with the OTF forever; he suggested three years before returning to the SPC if unscheduled. Janecek suggested if there was no progress on planning to implement a proposal, then perhaps it would be viable to return a proposal to the SPC. For Tier 2 proposals he suggested two years would be appropriate before returning a proposal to the SPC.

Howard stated that pulling proposals back from the OTF to the SPC may appear as punishment to the proponents. Janecek interjected that the only other option was to have a very large number of proposals at the OTF. Howard suggested that the challenge is to distinguish among the Tier 1 proposals, rather than pulling them back to the SPC. He added that unless there is some good reason, these proposals should not be returned to the SPC. Janecek suggested that, with such a scenario, there was little point in ranking the current proposals since they would never get drilled. Howard suggested that there needs to be a distinction between operational and science issues. Larsen added that, as new proposals come in, the merits of all proposals can change, so there needs to be a process to re-evaluate them. Kono added that at its January 2008 meeting, the SASEC discussed the need for such a mechanism, and recommended that the SPC periodically take back unscheduled proposals from the OTF for re-evaluation. He recognized that all proposals sent to the OTF were good, but that not all can be implemented, thus a need to be realistic and to ensure that the very best proposals are implemented.

Mountain agreed with Howard’s comment that taking proposals back from the OTF sends a “chilling” message to proponents if they see a re-evaluation of the proposal with a different set of criticisms. He added that the SPC needs to keep in mind previous reviews when re-evaluating a proposal.

Ruppel asked what, in terms of tier assignment, would happen with proposals currently residing with the OTF. She did not consider all of these to be Tier 1 proposals. Mori replied that those proposals would be discussed later. Ruppel said that after the review and ranking the SPC may decide that some proposals currently with the OTF are not Tier 1. Mori explained that some of the proposals sent to the OTF in August 2007 were called “high priority”, and he did not want to change that decision. Ruppel suggested this was unfair because all proposals were not considered at that time, whereas now the SPC is looking at

thirty-four proposals, which means it is more difficult for a proposal to be classified as Tier 1. Mori replied that unless the SPC always looks at all proposals at each ranking meeting, this situation is inevitable. But he suggested it is more practical to leave the previously identified Tier 1 proposals with the OTF. He said the SPC has the responsibility to choose high priority proposals and to respect past decisions.

van der Pluijm asked, if there are already five Tier 1 proposals with the OTF, how many more can be sent at this meeting. Mori replied that after the ranking process the SPC would decide which proposals to send to the OTF, and could also discuss those already with the OTF, though he did not commit to pulling any of the latter proposals back to the SPC. Ruppel stated that it was not a case of “pulling them back”, but a need to clarify where they rank in comparison to Tier 1 proposals that will be sent to the OTF from this meeting.

Schuffert observed that previously SPC used a Group 1 and Group 2 classification for proposals sent to the OTF, and asked if there was a difference between the “Group” and “Tier” classification concept. Mori replied that there would be more emphasis on ensuring that Tier 1 proposals got scheduled. Janecek added that Groups had a statistical cutoff, whereas Tier 1 proposals are those one or two exceptional proposals that come out of the ranking exercise, i.e., the “jewels in the crown” that the SPC wants to see implemented. He added that with more than one or two Tier 1 proposals (per ocean basin) the concept started to lose meaning due to “grade inflation”.

Kuramoto asked how long proposals will stay with the OTF. Mori replied that he did not want to specify a rule now, but suggested that it would be appropriate to re-evaluate Tier 1 proposals every couple of years.

Ruppel moved for adoption of the tier concept for forwarding proposals to the OTF; Mountain seconded. Filippelli volunteered to draft the statement.

Mori called for further discussion on the motion. Feary expressed confusion. He said he understood the desire to give better guidance to the OTF, but was not sure how the tier concept will work out. Mori replied that no one knows how it will work out, but the process needed to be approved now. He explained that the committee would go through the regular ranking process, then look at the list of ranked proposals as a whole and decide which proposals to send to the OTF as Tier 1 and Tier 2. Feary asked if that was not what was done at the August 2007 SPC meeting. Mori replied that the SPC did use the tier concept at its previous meeting but without formally approving the process. Früh-Green expressed confusion and suggested that perhaps a three-tiered system was needed (Tier 1, Tier 2, and all the rest). Mori explained that Tier 2 proposals would be sent to the OTF along with their rankings.

Schuffert asked if, after ranking, the top-ranked proposal would necessarily be a Tier 1 proposal. Mori and Janecek both indicated that it was not necessary to have a Tier 1 proposal.

Ruppel said that the tier concept as described did not take into consideration operational and budgetary aspects. She suggested that the ranking should be based on science, and operational and budgetary aspects should be factored in during the designation of tiers. Janecek again explained that the Tier concept arose because there were so many proposals residing with the OTF that there was no point in sending any more. He added that his view of the tier concept is different, and again stressed that a Tier 1 proposal is a proposal that the SPC really wants to see get done. He added that it was possible that no Tier 1 proposals would be identified at this, or the next couple of ranking meetings. Mori terminated this discussion and asked if the committee was prepared to approve the process. He noted that

there was a motion on the floor and called for further discussion. With no further discussion the motion was passed.

SPC Motion 0803-17: The SPC will send a group of proposals to the Operations Task Force (OTF) with a distinction of Tier 1 or Tier 2. Tier 1 proposals represent a small subset of proposals with very high priority science to be scheduled in the current phase of IODP (i.e., prior to September 2013). Tier 2 proposals are high quality proposals that are available for scheduling by the OTF to complete efficient ship tracks. The four proposals currently residing at the OTF will be assessed in this new designation system and assigned a status of either Tier 1 or Tier 2.

Ruppel moved, Mountain seconded; 15 in favor (Behrmann, Camoin, Cowen, Filippelli, Jenkyns, Kawahata, Kitazato, Marumo, Masuda, Mori, Mountain, Peterson, Ruppel, Tokunaga, Yamamoto), none opposed, 2 abstained (Feary, van der Pluijm), 4 non-voting (Lee, Li, Fröh-Green, Howard).

Discussions on the number of SPC representatives on the OTF continued on Thursday. Mori explained that, as part of the tier concept, Janecek suggested increasing the number of SPC members on the OTF. He explained that currently the OTF comprised three SPC members, three IO representatives, and one representative from the IODP-MI. Janecek suggested increasing the number of SPC members to five because he felt that with three the members were reluctant to act in an executive committee fashion to make Tier 2 changes to the schedule. He added the SPC would not be locked in, but suggested tying five. Ruppel suggested that if the OTF is offering more representation for the SPC, the SPC should accept it. Mountain concurred and added that if Janecek suggests five, the SPC should try that. Janecek noted that it was up to the SPC to appoint its members. Mori noted that the current SPC members on the OTF were the SPC chair and vice chair (Mori and Filippelli) and Behrmann. Ruppel volunteered. With no further volunteers, and with several regular Japanese SPC members absent, Mori suggested that the fifth member should be a to-be-named member from Japan.

SPC Consensus 0803-18: The SPC endorses an increase in representation to five SPC members on the Operations Task Force (OTF), effective immediately. In addition to Jim Mori, Gabe Filippelli and Jan Behrmann, the SPC appoints Carolyn Ruppel as an SPC representative on the OTF. A fifth SPC member from Japan will be appointed.

Tuesday

4 March 2008

09:00-17:00

12. Presentation and discussion of proposals

Jim Mori had previously described the SPC proposal review and ranking procedures (see agenda item 11). He added that the two main criteria for ranking should be scientific quality and relevance to the IODP Initial Science Plan (ISP). Mori also displayed, and asked for comments on, a list of other potential secondary criteria for ranking: (1) program balance; (2) adherence to the SASEC's guiding principles for scheduling of expeditions in 2008-2013 (as listed in the document *SASEC Implementation Plan for IODP Expeditions: 2008-2013*), including "building for the future", "very high scientific impact", and "high societal relevance"; (3) site survey issues; (4) technical feasibility; and (5) cost. He asked whether the committee should consider these issues when ranking.

Behrmann commented that the secondary issues are implicit and on everyone's mind all the time, but suggested that they should not be a factor at the front of the ranking process. Jenkyns stated that the ranking should be done purely on science, and other pragmatic factors

should come in when assigning tiers. Früh-Green suggested that the balance of disciplines should also be considered when ranking. Mountain agreed with Jenkyns, adding that there is only a limited amount of money in the system, which should be taken into account when assigning tiers, but ranking should be based on the two main criteria. Peterson stated that ranking should basically be based on science quality and perhaps program balance and relevance to the ISP. Feary agreed that science quality was the first and foremost criterion. van der Pluijm agreed that good quality science was the most important, and suggested that scientific impact should also be considered. Yamamoto agreed that science quality was the most important criterion for ranking, but added that it is difficult to compare the quality of proposals from different themes, such as seismogenic zone and deep biosphere, and thus there was a need to factor in balance based on the ISP. Tokunaga and Lee agreed that science quality was most important. Howard suggested that relevance to the ISP is not that important, and added that concern over the next science plan is important. Cowen agreed that science quality is first priority, but noted there is a difference between a great scientific question and a great scientific question with top notch methodology. Ruppel said that she echoed the other's comments. Kawahata said that ranking should be based purely on science, though readiness for implementation was also important. He added that it was important to show that the IODP was different from the Ocean Drilling Program (ODP). Masuda stated that science quality was first priority, with a need to consider both the impact on science and new fields of science. Marumo said that science impact was the main criterion, and other aspects were secondary. Camoin said that science quality should be the prime factor when ranking. He suggested that among the best, the difference will be the impact, possibility for a breakthrough, new ideas, and building for the future. Li and Kitazato both agreed that science quality was most important. Kitazato added that he looked for breakthroughs in science and technology. Filippelli stated that the SPC has the responsibility to consider other factors besides science quality.

Ussler, referring to the secondary criterion of technical feasibility, suggested that a procedure to get technical planning earlier into the proposal process was necessary, and if this could be done then technical issues may not be a factor at the SPC level. Mori replied that this issue would be dealt with later on the agenda (agendum 17).

The committee reviewed the thirty-four full proposals and one APL in the order shown in the table below, as organized on the agenda according to the three main themes of the IODP Initial Science Plan (ISP). For each proposal, the lead watchdog presented the scientific objectives and the committee discussed the objectives in detail. D'Hondt was conflicted and replaced by Cowen during the review and ranking process. Sawyer and Stephen remained out of the room for the entire proceedings as conflicted proponents. Although Camoin was originally appointed as a watchdog for Proposal 728-APL, as a proponent for 519-Full2 (South Pacific Sea Level) he was later ruled by the chair as conflicted for discussions of whether the APL should be forwarded to the OTF.

Proposal	Short title	Watchdogs	Conflicts
12.1. Deep Biosphere and Subseafloor Ocean			
547-Full4	Oceanic Subsurface Biosphere	Yamamoto/Ruppel/Cowen	none
553-Full2	Cascadia Margin Hydrates	Ruppel/Lee/Masuda	none
555-Full3	Cretan Margin	Behrmann/Cowen/Masuda	none
557-Full2	Storegga Slide Gas Hydrates	Ruppel/Lee/Tokunaga	none
584-Full2	TAG II Hydrothermal	Marumo/Tokunaga/Kawahata	none
589-Full3	Gulf of Mexico Overpressures	Tokunaga/Masuda/Ruppel	none
601-Full3	Okinawa Trough Deep Biosphere	Kitazato/Cowen/Yamamoto	none

633-Full2	Costa Rica Mud Mounds	Masuda/Ruppel/Behrmann	none
637-Full2	New England Shelf Hydrogeology	Masuda/Mountain/Tokunaga	none
662-Full3	South Pacific Gyre Microbiology	Cowen/Kitazato/Li	D'Hondt

12.2. Environmental Change, Processes, and Effects

477-Full4	Okhotsk/Bering Plio-Pleistocene	Peterson/Kitazato/Feary	none
548-Full2	Chicxulub K-T Impact Crater	Mori/Filippelli/Jenkyns	none
549-Full6	Northern Arabian Sea Monsoon	Filippelli/Mountain/Lee	none
552-Full3	Bengal Fan	Mountain/Jenkyns/Marumo	none
556-Full4	Malvinas Confluence	Lee/Peterson/Cowen	none
567-Full4	South Pacific Paleogene	Li/Jenkyns/Kitazato	none
581-Full2	Late Pleistocene Coralgall Banks	Camoin/Feary/Kitazato	none
605-Full2	Asian Monsoon	Peterson/Camoin/Lee	none
618-Full3	East Asia Margin	Camoin/Li/Peterson	none
644-Full2	Mediterranean Outflow	Filippelli/Feary/Camoin	none
661-Full2	Newfoundland Sediment Drifts	Kitazato/Filippelli/Li	none
667-Full	NW Australian Shelf Eustasy	Mountain/Feary/Camoin	none
686-Full	Southern Alaska Margin 1: Climate-Tectonics	van der Pluijm/Peterson/Filippelli	none
728-APL	Gulf of Papua Coralgall Barrier Reef	Feary/Mountain	Camoin
724-Full	Gulf of Aden Faunal Evolution	Peterson/Marumo/Yamamoto	none

12.3. Solid Earth Cycles and Geodynamics

522-Full5	Superfast Spreading Crust	Früh-Green/Kawahata/van der Pluijm	none
535-Full6	Atlantis Bank Deep	Kawahata/Früh-Green/Peterson	Stephen
537A-Full5	Costa Rica Seismogenesis Project Phase A	Behrmann/Mori/Marumo	none
537B-Full4	Costa Rica Seismogenesis Project Phase B	Mori/Behrmann/Marumo	none
551-Full	Hess Deep Plutonic Crust	Jenkyns/Filippelli/Früh-Green	none
612-Full3	Geodynamo	Feary/Yamamoto/Ruppel	none
654-Full2	Shatsky Rise Origin	Jenkyns/Kawahata/Früh-Green	none
659-Full	Newfoundland Rifted Margin	Früh-Green/Tokunaga/Behrmann	Sawyer
669-Full3	Walvis Ridge Hotspot	Kawahata/Früh-Green/van der Pluijm	none
703-Full	Costa Rica SeisCORK	Marumo/van der Pluijm/Behrmann	Stephen

Wednesday	5 March 2008	09:00-17:00
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13. Clarify status of proposals remaining with the Operations Task Force (OTF)

Mori and Janecek summarized the status of proposals remaining with the OTF. Janecek noted that all seventeen proposals listed under agenda items 13.1 and 13.2 are considered to be residing with the OTF.

13.1. Scheduled or recommended for FY2008-2010

The following proposals are either scheduled or recommended for scheduling as of March 2008:

	Proposal	Short Title
1	477-Full4	Okhotsk/Bering
2	482-Full3	Wilkes Land Margin
3	519-Full2	South Pacific Sea Level (Great Barrier Reef)
4	564-Full2	New Jersey Shallow Shelf
5	600-Full	Canterbury Basin
6	603A-Full2	NanTroSEIZE Phase 1: Reference Sites
7	603B-Full2	NanTroSEIZE Phase 2: Mega-splay Faults
8	603C-Full	NanTroSEIZE Phase 3: Plate Interface
9	603D-Full2	NanTroSEIZE Observatories
10	605-Full2	Asian Monsoon
11	626-Full2	Pacific Equatorial Age Transect
12	638-APL2	Adelie Drift

13.2. Available for future consideration by the Operations Task Force (OTF)

Excluding proposals forwarded to the OTF at this meeting, the following proposals are available for developing future scheduling options by the OTF:

	Proposal	Short Title
13	505-Full5	Mariana Convergent Margin
14	545-Full3	Juan de Fuca Flank Hydrogeology
15	595-Full3	Indus Fan and Murray Ridge
16	677-Full	Mid-Atlantic Ridge Microbiology
17	693-APL	S. Chamorro Seamount CORK

14. Global ranking of proposals I

Jim Mori had previously summarized the ranking procedure (see agenda item 11).

14.1. Select proposal pool to rank

Jim Mori noted that the following proposals would not be ranked: (1) 477-Full2 (Okhotsk/Bering Plio-Pleistocene) because the Bering part is still with the OTF; (2) 551-Full (Hess Deep Plutonic Complex) because the proponents asked that it not be ranked; (3) 557-Full2 (Storrega Slide Gas Hydrates) because the SPC was still waiting for the proposal to be updated; (4) 605-Full2 (Asian Monsoon) because it tentatively appears on the FY2009 schedule; (5) 555-Full3 (Cretan Margin) because the proponents asked that it not be ranked; and (6) 667-Full (NW Australian Shelf Eustasy) because the proponents are still processing site survey data in order to refine site locations. During the proposal reviews the committee decided to not rank two additional proposals: (7) 552-Full3 (Bengal Fan) and (8) 618-Full3 (East Asia Margin) because these proposals were to be considered within the Asian Monsoon DPG which would meet next week.

Mori showed a list of twenty-six proposals to be ranked. Ruppel asked if the two CRISP proposals (537A-Full5 and 537B-Full4) should be ranked together as they were both a component of a complex drilling project (537-CDP7). Mori replied that they should be ranked separately based on the science presented in each proposal. Mountain noted that Proposal 637-Full2 (New England Shelf Hydrogeology) has a pending site survey and that, currently, the sites cannot be evaluated. He asked if this, and other proposals in the same situation, should be ranked. Mori replied that it is a judgment call, and the proponents want the proposal to be ranked. He added that a high ranking could help to get a site survey funded. Feary suggested that the science that can be achieved is dependent on the sites that are drilled. Ruppel asked why the SPC would rank a proposal that cannot go forward to the OTF due to a lack of site characterization. Mori reiterated that for Proposal 637-Full2, a high ranking may help the proponents get site survey funding. He suggested ranking based on the science.

Filippelli agreed but said that the SPC should be more careful in the future about which proposals are ranked. He mentioned that there was little point in Proposal 637-Full2 residing with the OTF because after the site surveys it would have to come back to the SPC to be re-reviewed. He added that in the past proposals in this category were placed in a holding bin. Mori explained that previously proposals with insufficient site surveys that were nominally sent to the OTF were actually placed in a “holding bin” where they would remain until sufficient site survey data were acquired to allow the proposal to go forward to the OTF. Mori added that he wanted to avoid the use of the holding bin, and preferred instead to simply not send proposals to the OTF if they were not ready for scheduling. He asked for further discussion. With no further discussion the committee reached a consensus on the proposals to be ranked.

SPC Consensus 0803-19: The SPC defines the pool of proposals to be ranked for possible scheduling in FY2010 and beyond as including 26 of the 34 proposals reviewed at this meeting. The eight exceptions are: 477-Full4 (Okhotsk/Bering Plio-Pleistocene), 551-Full (Hess Deep Plutonic Crust), 552-Full3 (Bengal Fan), 555-Full3 (Cretan Margin), 557-Full2 (Storrega Slide Gas Hydrates), 605-Full2 (Asian Monsoon), 618-Full3 (East Asia Margin), 667-Full (NW Australian Shelf Eustasy).

The SPC excludes Proposal 477-Full4 (Okhotsk/Bering Plio-Pleistocene) from this year’s ranking pool because the Bering Sea component resides with the Operations Task Force (OTF) and appears on a schedule for FY2008.

The SPC excludes Proposal 551-Full (Hess Deep Plutonic Crust) from this year’s ranking pool so that the proponents’ ongoing analysis of recently collected site survey data can be completed to the point that the proposal’s conceptual “preliminary” sites are fully characterized as actual sites. It is expected that this proposal will be ready to rank at the next SPC proposal ranking meeting.

The SPC excludes Proposal 552-Full3 (Bengal Fan) and 618-Full3 (East Asia Margin) from this year’s ranking pool because these proposal will be considered by the Asian Monsoon Detailed Planning Group (DPG) which meets next week to coordinate, organize and prioritize a drilling plan for these, and two other, proposals.

The SPC excludes Proposal 555-Full3 (Cretan Margin) from this year’s ranking pool in response to the proponents’ request to allow them to fully analyze recently acquired site survey data and refine site characterization. It is expected that this proposal will be ready to rank at the next SPC proposal ranking meeting.

The SPC excludes Proposal 557-Full2 (Storrega Slide Gas Hydrates) from this year’s ranking pool because the committee is waiting for an update to the proposal.

The SPC excludes Proposal 605-Full2 (Asian Monsoon) from this year’s ranking pool because this proposal resides with the OTF and tentatively appears on a schedule for FY2009.

The SPC excludes Proposal 667-Full (NW Australian Shelf Eustasy) from this year’s ranking pool so that the proponents’ ongoing analysis of industry seismic data can be completed to the point that the proposal’s conceptual “preliminary” sites are fully characterized as actual sites. It is expected that this proposal will be ready to rank at the next SPC proposal ranking meeting.

15. Nomination of a SPC member for Thematic Review Committee on Ocean Crust Formation

Jim Mori reminded the committee that the SASEC had asked the SPC for a volunteer to serve on the second Thematic Review Committee on ocean crust formation. He asked Larsen how

much work was involved. Larsen replied that it was “quite an effort”, including attending a two-day meeting. Mori asked for volunteers and nominations. Früh-Green (an alternate for this meeting, but likely to be appointed as a regular member) was nominated.

Ruppel expressed concern over the proposed thematic review on the seismogenic zone. She observed that there was no plan to review one of the main areas of the ISP (the deep biosphere and the subseafloor ocean). Mori suggested that the committee send a recommendation to the SASEC to include a thematic review on the subseafloor ocean; he asked Ruppel to write a consensus statement for consideration by the committee.

SPC Consensus 0803-20: Based on the criterion that the Thematic Review Committee should assess and summarize IODP’s progress on topics for which the program proposed to conduct substantial work, the SPC recommends that the Science Advisory Structure Executive Committee (SASEC) consider forming a Thematic Review Committee on Initial Science Plan (ISP) Theme I: the Deep Biosphere and the Subseafloor Ocean. The SPC also recommends that the SASEC consider delaying the Thematic Review Committee on the seismogenic zone in light of recent changes in the drilling schedule.

16. Hybrid (complementary project) proposals

Carolyn Ruppel gave a presentation on “hybrid” or complementary project proposals (CPPs). He mentioned that at its August 2007 meeting the SPC accepted the concept of CPPs for hybrid IODP projects with substantial external funding, and noted that a working group of Ruppel, Camoin and Mori was established to determine an evaluation process for such proposals (SPC Consensus 0708-22). Ruppel described a CPP as a joint academic-industry proposal that: (1) has substantial sponsorship from industry; (2) has a compelling scientific focus; (3) is intended to be completed on an IODP platform operating under normal IO contracts; and (4) is reviewed by the SAS, but in a streamlined, as yet to be defined way. Ruppel also reviewed the history of the CPP concept. She said that industry has other mechanisms for involvement with the IODP so that CPPs will likely be rare; however, procedures need to be defined for how they should be considered. Ruppel listed some criteria for defining a CPP: (1) the lead proponent does not have to be from industry; (2) the scientific focus is linked to the ISP, of interest to non-industry scientists, and consistent with IO contracts and memoranda; (3) provides a minimum of 70% industry funding for platform operating costs (POCs); and (4) the proposal contains an additional section on the benefit of industry collaboration. Mori described a number of issues associated with CPPs: (1) the perception that the program is being “sold” to industry; (2) the review process needs to be more rapid, without iterations at the SSEP level; (3) concerns about proposal confidentiality; (4) industry concerns over the control of staffing and science; (5) requirement for flexibility with regard to the IODP guidelines (e.g., concerning moratoria, data use, publications, etc.). Mori noted that many of the issues are subject to contracts or memoranda of understanding (MOU) and therefore outside the purview of the SAS.

Ruppel suggested not spending a lot of time establishing procedures for the review of CPPs because these proposals will likely be very rare. She outlined one possible review process which would include: (1) the SSEP would judge the science of a CPP as it does with other proposals and would forward to the SPC or reject the proposal without any iterations with the proponents (i.e., no “nurturing”); (2) the SSP and EPSP would be required to review the site survey data for science, safety and environmental issues; and (3) the SPC would consider CPPs on a case-by-case basis. To move forward with the CPP concept, Ruppel proposed that the SPC subcommittee work with the SSEP co-chairs, SSP chair, and EPSP chair to define: (1) the required industry contribution; (2) the degree of flexibility from a scientific

perspective; (3) the details of the submission and review process; and (4) a procedure for how the SPC will consider CPPs.

Katz noted that issue of site survey data is complicated because industry often leases the seismic data and does not actually own it. He described the usage of leased data for drilling as more of an ownership issue rather than a confidentiality issue.

Howard referred to the “fast track” aspect of the CPP process and asked if one of these proposals was approved, would it push a regular expedition off the schedule. Ruppel suggested that this was likely. She noted that the CPP concept was not a plan for off-contract time and the associated expeditions would be considered IODP science. Ussler asked about whether the contribution to POCs extends the schedule into off-contract time. Divins in turn asked where the 70% cost sharing number came from. He was told that this is just a number higher than 50% which seemed reasonable as a cost-share. Larsen wondered if the cost-sharing would actually add to the science part of operations. Katz noted that industry budgets can be carried over only about six months beyond a given fiscal year, and thus the timing of funding might be challenging. He indicated that there was about a two year window between the time that an idea goes into the budget process and the time it is finished. Ruppel asked if the SPC was in favor of going forward with designing a process for CPPs. Mountain asked about the prime motive behind the CPP concept, i.e., was it to achieve the “Holy Grail” of bringing industry into IODP science, or was it just to prop up a poorly funded program. Janecek replied that one of the motivations is money. He suggested that industry might use the ship for pure industry operations, paying a day rate, and the program could bank the savings for science, whereas other collaborations would be true industry-science interactions.

Mori reiterated that he does not want to set up a big structure for CPPs at this point, but rather develop a framework with which CPPs could be dealt with should any be submitted. Janecek reminded the committee that all of the rules specified in the MOUs with respect to staffing, publications, etc., would have to be followed.

17. Input of engineering/technical information in the proposal process

Jim Mori presented background information on the input of engineering and technical information in the SAS proposal evaluation process. He noted that this agenda item arose from SASEC Consensus 0801-10, in which (at the request of the lead agencies) the SASEC asked the SPC to find a mechanism for having discussions of engineering issues earlier in the proposal evaluation and nurturing processes. Mori noted that comments at the recent Engineering Development Panel (EDP) meeting emphasized the need for technical information in the proposal review process. He added that the IODP-MI has been compiling technical information about proposals.

Mori suggested that the SSEP and SPC should focus on science issues and prioritize the best science for the IODP. He said there were advantages with not considering cost and technical issues, and suggested that technical issues are probably important for only a small number of proposals at the SSEP level. He also suggested that it was not reasonable for the EDP or the Scientific Technology Panel (STP) to be reviewing every proposal. Mori presented two recommendations: (1) the EDP and STP should be asked to give a technical review of a proposal when it is sent out for external review, and the EDP and STP evaluations should be provided to the SPC; (2) The IODP-MI should flag specific proposals with technical issues and ask the EDP and STP for reviews (these reviews would also be provided to the SPC (and SSEP)).

Tom Janecek reported on the assessment of drilling proposals by the IODP-MI, noting that the primary goals of the assessment were to: (1) provide a consistent assessment for the OTF

of technical, logistical, lead time, and budgetary issues; and (2) build a link between the technology requirements of drilling proposals and the technology roadmaps developed by the EDP and STP. Janecek showed an example spreadsheet maintained by the IODP-MI for a proposal, which included a summary of scientific goals, drilling plan, technical issues, special considerations, cost issues, as well as a timeline of SAS milestones for the proposal. He noted that issues were flagged even before a proposal goes to the SSEP for the first time. He added that a goal was to provide a consistent set of information for proposals with issues. He suggested that he would work with the EDP or STP chairs and if necessary ask the EDP or STP to look at a proposal, and the results of the evaluation(s) would be data that are collected. Janecek stated that it was now a question of how the SAS wants to access this information.

Janecek presented a list of questions and issues encompassed in a technological review of a drilling proposal which need to be addressed before a proposal can move forward. These included: (1) does the technology needed to complete the science objectives presently exist within the IODP, and if not, can the technology be leased, and if not, is there an existing plan (inside or outside the IODP) to develop the needed technology; (2) a technology listed in the drilling proposal is questioned because it has not been adequately tested (onshore and/or platform testing) or because it has not been proven to work in the IODP; (3) are there operational/logistical issues that are unresolved, such as shallow water, high latitudes, unfavorable weather window, permitting and clearance; and (4) what is the cost for needed (IODP or third party) technology (high, medium or low).

John expressed confusion and asked how the SSEP should use the technical information. Mori replied that the SSEP evaluations should be based on science, but that sometimes questions relating to technical issues arise. He added that liaisons attending a meeting may be able to answer a question, but the information would also be available in the spreadsheets. He reiterated that the evaluations should not hinge on technical issues and asked John if the SSEP wanted this information. John replied that presently, the SSEP members read through proposals and find issues which they discuss with the liaisons, but there is no formal mechanism for receiving or using technical information. Lovell, referring to the SSEP review form which includes a check box for flagging proposals with technical issues that may benefit from a review by the STP or EDP, said that there is a mechanism, though it has never been used. [Note: in May 2005, three proposals were flagged by the SSEP for review by the STP and EDP. These proposals were reviewed by the STP and EDP in July and September 2005, respectively.] Lovell described the proposed process for early identification of technical issues as a great way forward to help the SSEP and SPC. He added that he would like to see the suggestions presented by Janecek and Mori implemented.

Ussler noted that for SSEP meetings he compiles and circulates to the panel a spreadsheet with an analysis of technical issues related to the proposals that will be reviewed. He added that at its previous (November 2007) meeting, the SSEP did recommend Proposal 703-Full (Costa Rica SeisCORK) for review by the EDP. [Note: this recommendation was not recorded in either the written review or the meeting minutes.] Ussler suggested that the SSEP felt that there was no way to forward a proposal to the EDP for review. He supported Janecek's suggestions for flagging technical issues early on, adding that it is important to assess early on whether expensive technology is required to support the science. He also agreed that the SSEP and SPC should evaluate proposals on the basis of science quality but suggested they should also have a good sense of whether the technology required for a proposal exists. Larsen suggested that the time when a proposal is sent for external review would be early enough to start evaluating technical issues. Mountain expressed support for the tracking of technical issues by the IODP-MI. He suggested that the difficult part is keeping the information timely and up to date. Janecek added that his tracking spreadsheets

also monitor any action on a proposal, and that the IODP-MI would work with the proponents to maintain the spreadsheet. Ussler noted that the EDP have reviewed proposals only once (September 2005; three proposals were reviewed). Mountain replied that he hoped it would happen more often.

Kono explained the motivation behind SASEC Consensus 0801-10, noting that there was concern that proposals can spend a long time within the SAS, with reviews by the SSEP and SPC based on science, only to find out late in the process that there are technical issues which prevent a proposal from being implemented. He added that the lead agencies are keen to have technical issues flagged earlier so that the SAS does not spend time nurturing a proposal that cannot be implemented. Kono also stated that the SASEC wants the SSEP and SPC to evaluate proposals only on scientific merit, with consideration of the SASEC's guiding principles. He added that it was therefore not clear how the system could be improved while at the same time addressing the request of the lead agencies. Janecek suggested giving the process a chance to work. He added that, as the SAS has limited time, the IODP-MI should collect and synthesize the technical information and draw on the SAS for assistance when necessary.

Katz said that someone has to decide if the science is achievable. He questioned whether this should be considered during SSEP or SPC reviews with input from the technical panels (EDP and STP). He said that, in the end, someone has to pull the information together and rate the risk and achievability of a proposal. Howard said that the process outlined by Janecek is great, and asked to what extent the information collected by the IODP-MI would be available to the proponents. He suggested it would be very useful for the proponents. Ruppel agreed that Janecek's idea was great but identified several issues. She believed the lead agencies are interested in realism more than just the exchange of technical information, e.g., why spend time considering a proposal for an area that a drill ship will never go to. She added she was not comfortable with the SSEP and SPC evaluating technical aspects of proposals. She accepted the process whereby the IODP-MI asks the SAS to look at certain technical issues in a proposal, and thought it would be best to have the IODP-MI as the initiator of the process. But she stressed the need for more realism in the process to avoid wasting everyone's time. Larsen agreed that the EDP and STP should not look at all proposals, and said that the panels should only state their opinion in the areas of their specialization. He added that the SSEP and SPC do not have the proper expertise to evaluate technical aspects of proposals. He also suggested that it was important to get the proponents involved in the process from the beginning, and that proponents should be informed if their proposal requires very expensive technology or is technically challenging. Janecek stated that one advantage to having the IODP-MI as the "gateway" is that sometimes the panels do not have the required expertise to evaluate a proposal.

Mori asked the committee if it agreed with the process presented by Janecek. Janecek asked at what stage the SAS wanted to see the spreadsheet. Mori suggested that issues should be flagged early, and then when a proposal is sent out for external review, the EDP and STP could review the proposal. Mountain suggested that it would be useful to get a report from Janecek at each SPC meeting regarding how often technical issues arise. He suggested that there should be some guidelines for proponents and suggested encouraging the IODP-MI to post some information for proponents on its web site. Cowen added that informing proponents early on about technical challenges could lead to some technological innovation.

Janecek asked the SPC how it wants to access the information. Mori suggested that somewhere in the process, e.g., when a proposal is sent for external review, the EDP and STP should be asked to flag issues. Ruppel stated that she was not comfortable with that. Mori

added that that would be the formal process. He described the process presented by Janecek as an informal process with the IODP-MI flagging issues. Ruppel called this a backwards process. She said that staff at the IODP-MI maintain the information and therefore the information should flow from the IODP-MI to the SPC. She described the IODP-MI as the “nexus” for the information. She also described the information from the IODP-MI as more reliable than information from the panels. She also suggested that only if the IODP-MI flags specific issues should a proposal go to the EDP and STP for review when that proposal is sent for external review. Larsen, responding to Ruppel’s comment that information from IODP-MI was more reliable than information from the panels, stated that one of the guiding principles for proposals is that they are handled by the SAS. He said that if the SPC does not trust the panels, then it should do away with them. Janecek added that the IODP-MI relies heavily on the panels. Lovell stated that the STP has no wish to look at any proposals, yet it does want to help nurture proposals to be successful. He expressed confusion over Ruppel’s comments. Ussler commented that he works with Janecek’s group concerning engineering issues. He asked at what point the proponents would benefit most with regard to feedback about technical issues, and suggested that the earlier in the process the better (to get a solution “in the pipeline”), and that what was needed was a mechanism to get the feedback to the proponents.

Mori called a halt to discussions. He stated that by the August 2008 SPC meeting, he, Janecek and Larsen would come up with a plan to put before the SPC. Janecek pointed out that the SSEP meeting was coming up soon (in May), and suggested that the process should start early. Ruppel agreed to draft a recommendation, which was accepted by consensus of the committee.

SPC Consensus 0803-21: The SPC responds to the request from the Science Advisory Structure Executive Committee (SASEC Consensus 0801-10) to find ways to better provide technical/engineering information about proposals being considered within the Science Advisory Structure (SAS). The SPC recognizes that proposal evaluation by the Science Steering and Evaluation Panel (SSEP) and ranking of proposals by the SPC should consider the proposals’ science quality and relevance to the Initial Science Plan (ISP). However, having technical and logistical information available to SAS committees, panels and the proponents can improve the effectiveness and efficiency of the proposal process. The SPC recommends the following process:

- IODP-MI will continue to maintain a database on the engineering and logistical issues associated with each proposal in the system.
- IODP-MI will ask the Engineering Development Panel (EDP) and/or the Scientific Technology Panel (STP) (as appropriate) to consider specific technical and logistical issues in the proposals. These panels can provide advice to IODP-MI, other SAS committees, and/or the proponents at any point in the SAS process.
- This does not necessarily require that the entire proposal be forwarded to the panel(s).
- When the SSEP sends a proposal for external review, IODP-MI should review whether further EDP and/or STP input is desirable.

18. SPC Terms of Reference

This item was deferred until the August 2008 SPC meeting.

Thursday	6 March 2008	09:00-17:00
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19. Global ranking of proposals II

19.1. Balloting by SPC members

Each of the eighteen SPC members and alternates present and eligible to vote assigned the numerical rankings of one through twenty-six to the twenty-six proposals in the global ranking pool. The members submitted their rankings on signed ballots. Früh-Green, Lee, Li, and Howard were the non-voting members present. Cowen acted as an alternate for D'Hondt, who was conflicted and not present.

19.2. Tabulation of results

Zelt and Kawamura collected the ballots and tabulated the following results for the twenty-six proposals ranked by the committee.

Rank	Proposal #	Short Title	Mean	St. Dev.	Tier*
1	724-Full	Gulf of Aden Faunal Evolution	2.94	2.82	1 Ind.
2	601-Full3	Okinawa Trough Deep Biosphere	6.35	5.37	1 Pac.
3	644-Full2	Mediterranean Outflow	8.06	5.26	1 Atl.
4	662-Full3	South Pacific Gyre Microbiology	8.41	6.38	2
5	659-Full	Newfoundland Rifted Margin	9.47	5.64	2
6	637-Full2	New England Shelf Hydrogeology	9.71	6.29	NF
7	537B-Full4	Costa Rica Seismogenesis Project Phase B	10.18	5.66	1 Pac.
8	633-Full2	Costa Rica Mud Mounds	10.71	7.25	2
9	549-Full6	Northern Arabian Sea Monsoon	11.18	5.64	2
10	686-Full	Southern Alaska Margin 1: Climate-Tectonics	11.82	6.52	2
11	537A-Full5	Costa Rica Seismogenesis Project Phase A	12.65	6.17	2
12	654-Full2	Shatsky Rise Origin	13.06	6.45	2
13	522-Full5	Superfast Spreading Crust	13.76	6.58	2
14	553-Full2	Cascadia Margin Hydrates	14.35	6.20	NF
15	669-Full3	Walvis Ridge Hotspot	14.35	5.70	NF
16	548-Full2	Chicxulub K-T Impact Crater	14.47	9.10	NF
17	556-Full4	Malvinas Confluence	14.71	5.95	NF
18	661-Full2	Newfoundland Sediment Drifts	15.00	5.49	NF
19	703-Full	Costa Rica SeisCORK	15.18	6.28	NF
20	581-Full2	Late Pleistocene Coralgall Banks	15.24	7.39	No tier
21	567-Full4	South Pacific Paleogene	15.65	4.17	NF
22	589-Full3	Gulf of Mexico Overpressures	18.24	3.98	NF
23	612-Full3	Geodynamo	19.35	8.57	NF
24	584-Full2	TAG II Hydrothermal	19.65	6.62	NF
25	535-Full6	Atlantis Bank Deep	22.76	2.68	NF
26	547-Full4	Oceanic Subsurface Biosphere	23.76	3.03	NF

*NF = not forwarded to the OTF

19.3. Select ranked proposals to forward to OTF

Jim Mori announced that the SPC needed to decide which proposals to send to the OTF, and to assign tiers to these proposals.

Filippelli suggested first deciding which proposals to send to the OTF, then later assigning tiers. There was general agreement to follow this procedure. Mori asked for discussion on a cutoff line, above which proposals would be forwarded to the OTF.

Feary said that a major consideration is the number of proposals already at the OTF, plus the fact that the *JOIDES Resolution* will not be available for some time. He added that there is an obvious reluctance to pull proposals back from the OTF because that sends a negative message to the proponents. He recommended sending only a small number of proposals to the OTF, adding that at present there are many proposals with the OTF. Janecek explained that this summer the OTF will be developing schedule options for the next two fiscal years, as well as considering possible options for FY2011. He stated that the OTF needs enough proposals to be able to craft schedules for any ocean basin for two plus years. He added that the OTF will want a few Tier 1 proposals plus some Tier 2 proposals to fill in the schedules.

Filippelli observed that currently there are not many Atlantic Ocean proposals at the OTF. Peterson suggested forwarding the top ten, which would include several Atlantic proposals. Ruppel observed that at least two proposals in the top ten cannot be drilled. She added that proposals should be sent for all platforms. Jenkyns suggested that subject balance should also be considered; he stated that there was a predominance of paleoceanographic proposals amongst those that were top ranked. John observed that there were not many solid earth proposals on the list of ranked proposals, nor many solid earth members on the committee. Camoin stated that that committee's expertise balance was an issue for the Program Member Offices to deal with.

Janecek stated that the committee should not be concerned about sending too many proposals to the OTF. He explained that the idea behind the tier concept is that after one or two years, the SPC would have the option to pull proposals back. He stressed that the community needs to receive the message that a proposal that is sent to the OTF is not guaranteed to be scheduled.

Filippelli suggested selecting a cutoff line, then looking at the balance. He suggested drawing the cutoff line after eighteen, which he stated left a good balance and lots of proposals for the OTF. Camoin suggested that Proposal 637-Full2 (New England Shelf Hydrogeology) should not be sent to the OTF due to a lack of site survey data. Larsen agreed that the SPC needs to distinguish between proposals that are doable and those that are not. Feary stated that the SPC does not have the expertise to assess whether the top ranked proposal (724-Full, Gulf of Aden Faunal Evolution) is doable or not. Mori suggested not sending proposals to the OTF that are not ready to be drilled. Referring to Proposal 724-Full he recommended that political problems be dealt with by the OTF. van der Pluijm suggested forwarding all twenty-six ranked proposals to the OTF. Mori explained that in the past there were problems with forwarding many proposals. van der Pluijm then suggested forwarding the top thirteen. Mountain stated that only drillable proposals should be forwarded to the OTF. Larsen suggested that the committee consider which proposals it does not want to forward for various reasons. Janecek noted that one difference between now and the past is that the OTF will not even think about putting an un-drillable proposal on the schedule. van der Pluijm rejoined that the un-drillable proposals should then not have been ranked. Howard said that the SPC has ranked the proposals based on scientific merit, and now it needed to factor in operational considerations, which brings in a whole new set of variables; basically another ranking. Behrmann suggested that it doesn't have to be so complicated. He recommended sending "a bunch" of proposals to the OTF and letting the OTF deal with them. He added that with the new tier scheme, the SPC representation on the OTF will be stronger. Janecek replied that he had no problem with having a lot of proposals residing with the OTF, but he

stated that the OTF needs to know where the SPC wants the platforms to go. He explained that the IOs have finite resources to develop options, and that it is not possible to develop options for a huge number of proposals, and hence the OTF needed guidance. Mével expressed concern about a lack of mission specific platform (MSP) proposals. Evans identified Proposals 637-Full2, 548-Full2 and 581-Full2 as MSP proposals.

Camoin asked how long proposals will stay with the OTF, adding that it was important for SPC to know this. Janecek replied that it is up to the SPC. He said that realistically a two-year cycle was required, and thus he proposed two years.

Feary noted that the proposals currently residing with the OTF have not been ranked, so that he cannot assess how they compare to those ranked at this meeting. Behrmann reminded him that at its August 2007 meeting the SPC did revisit proposals that were sitting with the OTF, and that some of these are now being reconsidered today. He suggested that it was not necessary to again look at those currently residing with the OTF. Mori stated that it was still necessary to designate those proposals as Tier 1 or 2. Behrmann agreed.

Mori asked each voting member of the SPC where they would draw the cutoff line for forwarding proposals to the OTF. Responses varied between the top seven and eighteen. A few members expressed a desire to ensure that at least one MSP proposal was sent to the OTF. Mori, recognizing this, stated that this would necessitate forwarding at least the top sixteen (in order to include Proposal 548-Full2). Mountain wondered if, given the choice of sending either Proposal 548-Full2 (Chicxulub K-T Impact Crater) or 581-Full2 (Late Pleistocene Coralgall Banks) to the OTF, the SPC would prioritize them differently than suggested by the ranking results. Evans explained that, as presently configured, Proposal 637-Full2 will not be drilled prior to 2013. He suggest that Proposal 548-Full2 was possible, but that due to costs, an additional MSP operation would not be feasible. He added that the SASEC wants an MSP operation every two years. He stated that Proposal 581-Full2 was, by far, most feasible in terms of cost. He said it probably would not be implemented until 2010-2011, after which it might be possible to implement one more MSP expedition prior to 2013 should an affordable one appear later. He added that there were currently twelve or thirteen MSP proposals in the IODP system.

Feary asked if it was reasonable to adopt a model of drawing a higher cutoff line, and also forwarding some other proposals from below that line to the OTF. Schuffert asked how the SPC could consider sending a proposal to the OTF that ranked lower than one not sent to the OTF. Mori replied that the SPC should have the liberty to be selective in what it forwards. Schuffert agreed that this was acceptable for technical reasons. Mori said that the proposals were ranked on science, but that other issues should be considered when sending a proposal to the OTF. Schuffert replied that the SPC should only consider those reasons when excluding a proposal from being forwarded to the OTF. Ruppel said that the SPC has a right to do what it wants, such as bring in other considerations such as programmatic balance.

Mori noted that the average cutoff line of the voting members was fourteen and above, while the mode was thirteen and above (with seven votes). He proposed forwarding the top thirteen ranked proposals to the OTF, then selectively removing and adding others. He asked for comments about which, if any, proposals ranked thirteen or higher should be removed, and which, if any, lower ranked proposals should be included.

Feary suggested that Proposal 637-Full2 should not be forwarded to the OTF. There was general consent to this suggestion. Ruppel asked about the feasibility of Proposal 553-Full2 (Cascadia Margin Hydrates). Janecek called it “financially difficult”, noting that the USIO already has several proposals with observatories. Camoin proposed including Proposals 548-

Full2 and 581-Full2 to provide MSP scheduling options. Larsen noted that, in principle, the ranking is independent of platform. He expressed concern that proposal 581-Full2 always ranked very low. van der Pluijm stated that he did not like this process, observing that now platforms are important. He humorously suggested that next, political issues will be important. Larsen agreed, pointing out that it may be difficult to explain this process to proponents. Behrmann doubted that not forwarding the two MSP proposals will be a serious problem for ESO. He suggested waiting for another year to see what comes up from the SSEP. He noted that this year, some of the new proposals from the SSEP have ranked quite highly, and suggested this might happen again next year with an MSP proposal. He suggested not forwarding Proposals 548-Full2 and 581-Full2 to the OTF. Mountain stated that it is not absolutely certain that Great Barrier Reef will go ahead, therefore it is important to send an MSP proposal to the OTF to give ESO some options. Kono noted that the lead agencies want the SPC to be more realistic and focus on achievable science. He suggested that if there was no MSP proposal implemented in the next two years it would not be very healthy and would hurt the spirit of ocean drilling. Tokunaga agreed with Behrmann, saying that there may be a strong MSP proposal coming up from the SSEP. He wondered if sending a low-ranked MSP proposal to the OTF would hurt the chances of a stronger MSP proposal that might come along later. Zelt questioned the message that the SPC would send by forwarding MSP proposals to the OTF which ranked relatively low based on science.

Cowen expressed discomfort with selectively forwarding lower-ranked proposals unless it was the mandate of the SPC to specifically make these types of operational decisions. Filippelli replied that he believed it was the responsibility of the SPC to not be blindly obedient to the rankings, but to factor in regional, operational and other considerations. He described the ranking results as a guide. Larsen stated that it was important that the SPC be able to defend its decisions for forwarding lower ranked proposals.

Ruppel stated that she was in favor of forwarding the top thirteen proposals, but expressed concern about not including an observatory proposal, which she suggested could be important for program renewal. Peterson agreed, and suggested forwarding the top sixteen and Proposal 581-Full2. Mori also suggested forwarding the top sixteen. Mountain and Camoin agreed. Kawahata said that sixteen is too many and he preferred forwarding the top thirteen, pointing out that more good proposals will be coming up from the SSEP. Masuda agreed and expressed discomfort with selectively including lower ranked proposals, arguing that there was already many proposals at the OTF. van der Pluijm asked about the likelihood that any of the top sixteen would actually be implemented. Janecek replied that the FY2009 schedule was already filled. He said that perhaps seven programs could be completed in FY2010-2011. Katz said that a *Chikyu* riser operation requires a huge amount of planning, so that, assuming CRISP (Proposal 537B-Full4) would be the next riser expedition, there would not be time to implement another riser project before 2013.

Mori called for a straw vote on whether to forward the top thirteen or top sixteen proposals to the OTF. Thirteen received seven votes in favor; sixteen received nine votes in favor. Mori called for a straw vote on forwarding the top sixteen proposals, excluding Proposal 637-Full2. Seven members were in favor. Mori called for a straw vote on forwarding the top sixteen, excluding Proposal 637-Full2, and including Proposal 581-Full2. Seven members were in favor.

Mountain stated that there were good reasons for including Proposal 581-Full2 based on science. Cowen stated that if it was a matter of science, it would have rated higher. He suggested the only pertinent reasons to include it would be logistical, cost or operational issues. van der Pluijm said that there were proposals ranked higher than sixteen that he felt

should not be forwarded. He suggested that if lower ranked proposals were to be included, then it was acceptable to exclude some higher ranked proposals. Ussler commented that the rankings seem to be viewed as a race. He called this wrong and said that the statistics show that most are indistinguishable from the others, therefore, the rankings don't have to be the basis for selecting proposals to forward. Behrmann disagreed and observed that the process was going around in circles. He suggested having a cascade of motions, starting with forwarding the top thirteen, then the top sixteen, then a motion to also forward Proposal 581-Full2. Mountain suggested that the SPC should first vote on whether it accepts the practice of selectively forwarding proposals below the cutoff line to the OTF.

The following motion did not receive the required affirmative vote of at least two-thirds of all members present and eligible to vote; therefore, this motion did not pass.

SPC Motion 0803-22: After deciding on a cutoff line, above which ranked proposals will be forwarded to the Operations Task Force (OTF) for possible scheduling in FY2010 and beyond, the SPC will consider also forwarding selected proposals below the cutoff line to the OTF.

Filippelli moved, Mountain seconded; 10 in favor (Camoin, Cowen, Feary, Filippelli, Jenkyns, Mountain, Peterson, Ruppel, van der Pluijm, Yamamoto), 5 opposed (Behrmann, Kawahata, Kitazato, Marumo, Masuda), 1 absent (Tokunaga), 1 abstained (Mori), 4 non-voting (Lee, Li, Früh-Green, Howard).

Filippelli suggested a similar but new motion which specifically mentions that the low ranked proposals below the cutoff line would be included for “scientific and operational purposes”.

The following motion did not receive the required affirmative vote of at least two-thirds of all members present and eligible to vote; therefore, this motion did not pass.

SPC Motion 0803-23: After deciding on a cutoff line, above which ranked proposals will be forwarded to the Operations Task Force (OTF) for possible scheduling in FY2010 and beyond, the SPC will also consider forwarding selected proposals below the cutoff line to the OTF for scientific and operational purposes.

Filippelli moved, Mountain seconded; 10 in favor (Camoin, Cowen, Feary, Filippelli, Jenkyns, Mori, Mountain, Peterson, Ruppel, Yamamoto), 5 opposed (Behrmann, Kawahata, Kitazato, Marumo, Masuda), 1 absent (Tokunaga), 1 abstained (van der Pluijm), 4 non-voting (Lee, Li, Früh-Green, Howard).

After the vote, van der Pluijm explained that he abstained because Robert's Rules do not allow changing a motion in this way in order to force it through.

Peterson moved that the top fourteen proposals, with the exception of Proposal 637-Full2, and including Proposals 548-Full2 and 581-Full2, be forwarded to the OTF.

The following motion did not receive the required affirmative vote of at least two-thirds of all members present and eligible to vote; therefore, this motion did not pass.

SPC Motion 0803-24: The SPC forwards the top fourteen (excluding 637-Full2 - New England Shelf Hydrogeology - due to inadequate site characterization) of twenty-six ranked proposals and Proposals 548-Full2 (Chicxulub K-T Impact Crater) and 581-Full2 (Late Pleistocene Coralgall Banks) to the Operations Task Force for possible scheduling in FY2010 and beyond.

Peterson moved, Mountain seconded; 8 in favor (Camoin, Cowen, Filippelli, Jenkyns, Mountain, Peterson, Ruppel, Yamamoto), 6 opposed (Behrmann, Kawahata, Kitazato, Marumo, Masuda, van der Pluijm), 1 absent (Tokunaga), 2 abstained (Feary, Mori), 4 non-voting (Lee, Li, Früh-Green, Howard).

van der Pluijm moved that the top thirteen proposals, with the exception of Proposal 637-Full2, and including Proposal 581-Full2 (for operational purposes), be forwarded to the OTF. Mori asked for discussion on the motion. Ruppel asked why Proposal 548-Full2 was not included in the motion. van der Pluijm explained that, scientifically, he preferred Proposal 581-Full2 which, he added, was operationally more feasible. Larsen asked Evans if there was a difference between having both Proposals 548-Full2 and 581-Full2 at the OTF versus just Proposal 581-Full2. Evans replied that it was not really a matter of flexibility. He again explained that if both New Jersey and Great Barrier Reef are implemented then it may be possible to implement Proposal 548-Full2 by 2013, but there would be no possibility of an additional MSP operation. He suggested that Proposal 581-Full2 could be implemented sooner and would leave open the possibility for one more MSP expedition before 2013. Peterson asked if that one additional expedition could be Proposal 548-Full2. Evans replied that he did not think so. Cowen pointed out that van der Pluijm's reason for including Proposal 581-Full2, but not Proposal 548-Full2 was scientific. He wondered if there was some compelling operational reason for including Proposal 581-Full2 but not 548-Full2. Janecek replied that with Proposal 581-Full2 there is an opportunity to schedule a second MSP expedition. Larsen stated that currently there is only one MSP proposal with the OTF (Great Barrier Reef). He said that Proposal 581-Full2 was operationally feasible, and the OTF should not be left in a position with no MSP proposals.

SPC Motion 0803-25: The SPC forwards the top thirteen (excluding 637-Full2 - New England Shelf Hydrogeology - due to inadequate site characterization) of twenty-six ranked proposals to the Operations Task Force (OTF) for possible scheduling in FY2010 and beyond. Proposal 581-Full2 (Late Pleistocene Coralgall Banks) is also forwarded to the OTF to provide a possible scheduling option for mission-specific platform (MSP) operations.

Proposals forwarded to the OTF:

724-Full	Gulf of Aden Faunal Evolution
601-Full3	Okinawa Trough Deep Biosphere
644-Full2	Mediterranean Outflow
662-Full3	South Pacific Gyre Microbiology
659-Full	Newfoundland Rifted Margin
537B-Full4	Costa Rica Seismogenesis Project Phase B
633-Full2	Costa Rica Mud Mounds
549-Full6	Northern Arabian Sea Monsoon
686-Full	Southern Alaska Margin 1: Climate-Tectonics
537A-Full5	Costa Rica Seismogenesis Project Phase A
654-Full2	Shatsky Rise Origin
522-Full5	Superfast Spreading Crust
581-Full2	Late Pleistocene Coralgall Banks

van der Pluijm moved, Peterson seconded; 12 in favor (Behrmann, Camoin, Cowen, Feary, Filippelli, Kitazato, Marumo, Mountain, Peterson, Ruppel, van der Pluijm, Yamamoto), 2 opposed (Kawahata, Masuda), 1 absent (Tokunaga), 2 abstained (Jenkyns, Mori), 4 non-voting (Lee, Li, Fröh-Green, Howard).

Mori stated that the SPC needs to decide what is meant by Tier 1 and 2. His thought was that Tier 1 proposals are the one, two or three high priority science expeditions (per ocean basin) which the IODP will try to complete in the next few years. He suggested not considering costs, permitting issues, etc. when assigning tiers, but leaving those issues to the OTF. Janecek said that Tier 1 has to be an iterative approach because it may turn out that some proposals are not doable. He said that with the tier concept, for a given ocean basin the Tier 1

proposal would be the one around which a schedule would be built, and Tier 2 proposals would fill in the schedule. He suggested there should be no more than two Tier 1 proposals per ocean. But, he added, the SPC needs to define the time frame for how long the proposals will remain with the OTF.

Howard asked for clarification on which group of proposals would be assigned tiers. Mori proposed not ranking the proposals listed in agendum 13.1 (proposals scheduled or recommended for scheduling for FY2008-2010). He said that tiers should only be assigned to the proposals being sent to the OTF at this meeting, and the four (not including Proposal 693-APL) listed in agendum 13.2 (proposals available for future consideration by the OTF). He asked which group of proposals should be assigned tiers first. Janecek suggested doing them all together. Ruppel said that if there are some proposals that cannot be implemented (as advised by the OTF) they should not be sent to the OTF. Mori suggested that Proposal 724-Full was such a proposal. He also suggested that the OTF should look at it and inform the SPC whether or not it can be implemented. Divins commented that he felt it was not possible to implement, but added he would like the opportunity to look further into it.

Because the SPC would be discussing tier assignments for proposals listed in agendum 13.2, Cowen, a proponent on Proposal 545-Full3 (Juan de Fuca Flank Hydrogeology) left the room as a conflicted member.

Zelt noted that previously the SPC assigned proposals to a group and that a Group 1 proposal always ranked higher than a Group 2 proposal. He said that this appears not to be the case with tiers and asked for confirmation. Janecek replied that this was true. Zelt also asked if the tier concept only applied to proposals that would use the *JOIDES Resolution* as a platform. Janecek said yes.

Mori asked for suggestions for tier assignments. There was a general consensus that for the Indian Ocean, Proposal 724-Full was a Tier 1 proposal, while Proposal 549-Full6 was a Tier 2 proposal. Oshima commented that, regarding Proposal 595-Full3 (Indus Fan), due to severe permitting problems, *Chikyu* cannot go near Pakistan. He recommended assigning no tier to this proposal.

For the Atlantic Ocean, Ruppel noted that the proponents for Proposal 677-Full (Mid-Atlantic Ridge Microbiology) have a major commitment to funding from the Moore Foundation. Mori added that that it is also one of the few highly ranked microbiology proposals. Zelt noted that there are no site survey data for this proposal. Ruppel said that a site survey was funded. Zelt pointed out the Site Survey Panel (SSP) would still have to review the data to judge their adequacy; he also noted that other proposals were not ranked due to a lack of site survey data. Feary said that there was some analogy with Proposal 724-Full, which currently does not have sufficient site survey data to allow implementation, and which has been forwarded to the OTF; he suggested it was therefore acceptable to forward Proposal 677-Full. Ruppel stated that there was also a political issue because of the large financial commitment to the proposal via the Moore Foundation's grant. She called this a "big deal" for the IODP, and suggested that regardless of whether it is currently doable or not, it should be sent to the OTF. The committee agreed to classify Proposal 677-Full as a Tier 1 proposal for the Atlantic Ocean. With minimal discussion, the committee also agreed to classify Proposal 644-Full2 as a Tier 1, and 659-Full as a Tier 2 proposal for the Atlantic Ocean. There was also agreement to not assign a tier to proposal 581-Full2.

For the Pacific Ocean, Behrmann pointed out that Proposal 505-Full5 (Mariana Convergent Margin) was the top ranked proposal in March 2007 and suggested this should be a Tier 1 proposal. Proposal 601-Full3 (Okinawa Trough Deep Biosphere) was also quickly agreed

upon as a Tier 1 proposal. Mori asked if the remaining Pacific proposals (662-Full3, 537B-Full4, 633-Full2, 686-Full, 537A-Full5, 654-Full2 and 522-Full5) should be classified as Tier 2 proposals. Katz stated that, operationally there was a need to determine very soon which riser expedition *Chikyu* will do after NanTroSEIZE. He said it would take four years to prepare. Zelt noted that both proposals 537B-Full4 and 686-Full are lacking significant site survey data. Feary expressed concern about committing to another riser program when something new could come up next year. He suggested that it did not matter if Proposal 537B-Full4 was assigned either Tier 1 or 2. van der Pluijm disagreed, citing concern about sending a bad signal to the proponents. Zelt, referring to Proposal 537B-Full4, asked how much of a commitment could be made to a project that still requires a 3-D seismic survey for site characterization. Camoin stated that this proposal is part of a complex drilling project (CDP), and that all phases need to be completed. Zelt asked if Proposal 537A-Full5 should then also be classified as a Tier 1 proposal to avoid a situation in the future where only Proposal 537B-Full4 is at the OTF, but cannot be implemented because Proposal 537A-Full5 must be completed first. The committee agreed to designate Proposal 537B-Full4 as a Tier 1 proposal for the Pacific Ocean.

For Proposal 545-Full3, Ruppel stated that there was an NSF commitment of approximately \$1M and suggested it should also be a Tier 1 proposal. Mori said that three Tier 1 proposals for the Pacific was too many. Behrmann agreed, and added that both Proposals 601-Full3 and 505-Full5 could be done by *Chikyu* in riserless mode. Janecek pointed out that there is a goal to maximize riser drilling with *Chikyu*, thus non-riser drilling by *Chikyu* will probably be limited to NanTroSEIZE. Ruppel observed that, so far, the Tier 1 proposals for the Pacific are ISP theme 1 (deep biosphere and subseafloor ocean) proposals. She asked if subject balance should be considered. Früh-Green replied that there are a lot of paleoceanography expeditions already scheduled. She noted that proposals related to the deep crust were not well represented. van der Pluijm commented that the Tier 1 proposals should represent the science that the program really wants to get accomplished. Ruppel and Früh-Green both expressed support for classifying Proposal 545-Full3 as Tier 1. The committee agreed to designate Proposal 545-Full3 as a Tier 1 proposal for the Pacific Ocean.

The committee agreed by consensus to the tier designations described above.

SPC Consensus 0803-26: The SPC assigns the following Tier designations for proposals forwarded to the Operations Task Force (OTF) at this meeting:

724-Full	Gulf of Aden Faunal Evolution	Tier 1 Indian Ocean
601-Full3	Okinawa Trough Deep Biosphere	Tier 1 Pacific Ocean
644-Full2	Mediterranean Outflow	Tier 1 Atlantic Ocean
662-Full3	South Pacific Gyre Microbiology	Tier 2
659-Full	Newfoundland Rifted Margin	Tier 2
537B-Full4	Costa Rica Seismogenesis Project Phase B	Tier 1 Pacific Ocean
633-Full2	Costa Rica Mud Mounds	Tier 2
549-Full6	Northern Arabian Sea Monsoon	Tier 2
686-Full	Southern Alaska Margin 1: Climate-Tectonics	Tier 2
537A-Full5	Costa Rica Seismogenesis Project Phase A	Tier 2
654-Full2	Shatsky Rise Origin	Tier 2
522-Full5	Superfast Spreading Crust	Tier 2
581-Full2	Late Pleistocene Corallgal Banks	No Tier designation

The SPC also assigns the following Tier designations to proposals previously residing with the OTF:

505-Full5	Mariana Convergent Margin	Tier 1 Pacific Ocean
545-Full3	Juan de Fuca Flank Hydrogeology	Tier 1 Pacific Ocean
595-Full3	Indus Fan	No Tier designation
677-Full	Mid-Atlantic Ridge Microbiology	Tier 1 Atlantic Ocean

The committee discussed Proposal 728-APL (Gulf of Papua Coralgall Barrier Reef). Feary explained that, although Camoin (lead proponent of Proposal 519-Full2 – South Pacific Sea Level/Great Barrier Reef) was originally assigned as a watchdog for the proposal, it was not understood that operational time for the APL would take time away from drilling of the Great Barrier Reef. Thus, Camoin recused himself on those grounds and was not present for the discussion. Feary suggested that the proponents should be asked to restrict their APL to one hole which can be completed within three days. He considered the 19,000 year meltwater pulse as the highest priority science aspect of the APL. He also suggested that the revised APL should return directly to the SPC, not the SSEP. Ruppel suggested that the proponents should talk to the IO before resubmission to obtain more accurate estimates of required drilling time. Mountain suggested that the proponents should also provide a timeline for acquiring site survey data, noting that currently, the proponents do not have specific site locations. These recommendations were accepted by consensus of the committee.

SPC Consensus 0803-27: The SPC decides not to forward Proposal 728-APL (Gulf of Papua Coralgall Barrier Reef) to the Operations Task Force. Instead, the SPC requests that the proponents submit a revised ancillary project letter (APL) with a revised drilling plan based on a single hole, and which meets the specifications of an APL. The APL also needs to clarify the timeline for acquiring site survey data. The revised APL will not be sent to the Science Steering and Evaluation Panel (SSEP) for review, but will be reviewed by the SPC at its next meeting following resubmission of the APL.

19.4. Nominate co-chief scientists for forwarded proposals

Jim Mori pointed out that the SPC needs to nominate co-chief scientists for all proposals sent to the OTF at this meeting. He requested that the members send their suggestions by email after the meeting. Evans requested that the SPC provide more recommendations for Great Barrier Reef. Feary said that he did not know who was currently nominated. Evans replied that he would provide a list to the IODP-MI.

20. Platform scheduling

Janecek said that the March-May period of FY2009 may be a time of *Chikyu* riserless operations. He noted that Proposal 605-Full2 (Asian Monsoon) is with the OTF, and that Proposal 601-Full3 (Okinawa Trough Deep Biosphere) was just forwarded to the OTF. He asked the committee if it would like to prioritize these two proposals. Ruppel, Früh-Green, van der Pluijm and Yamamoto all stated that the science of Proposal 601-Full3 was more compelling. The committee agreed by consensus that Proposal 601-Full3 would be the top priority proposal for a *Chikyu* riserless operation, should it be feasible in the time period specified by Janecek.

SPC Consensus 0803-28: Should a *Chikyu* riserless operation be feasible during March-May 2009, the SPC designates Proposal 601-Full3 (Okinawa Trough Deep Biosphere) as the first priority expedition for this time slot, and Proposal 605-Full2 (Asian Monsoon) as second priority.

Mori asked the committee if it wanted to continue supporting SPC Consensus 0708-33, in which the SPC approved the Atlantic Ocean as the top priority ocean basin for FY2010 *JOIDES Resolution* operations, with Mid-Atlantic Ridge Microbiology (Proposal 677-Full) as the top priority Tier 1 program. Feary stated that he did not like being locked in to

choosing an ocean for FY2010 JOIDES Resolution operations when it is still uncertain when the ship will become operational. Behrmann said that not having the *JOIDES Resolution* ship in the Atlantic would mean that all platforms would be in the Pacific. He wondered if this was acceptable. Janecek said that not prioritizing the oceans for FY2010 was not good. He explained that this summer the OTF will try to plan the FY2010 schedule, and will need realistic options. He said that without prioritization there would be too many options to evaluate. Howard preferred not specifying an ocean, saying priorities should be based on science. Janecek reiterated that the IODP-MI does not have infinite resources to consider all options, and that with no stated preference it will be difficult for the OTF to put together quality packages for the SPC to consider. He added that without guidance the OTF will do its best, but the OTF will make the decision on where to send the ship instead of the SPC. Früh-Green said that, in terms of time and money, it depends on where the *JOIDES Resolution* will be with non-IODP work. Janecek replied that it was unknown at this point whether non-IODP work would be found; the ship may be tied up for six months. Mori said that the two options are to maintain the consensus statement or decide that the ship should stay in the Pacific. Behrmann suggested waiting to see where non-IODP work will take the *JOIDES Resolution*. He said that this was a non—science criteria, but that in the end it will drive the program. He felt SPC Consensus 0708-33 expressed that the SPC would like to see the ship in the Atlantic, but that it was not a binding decision. Mori recommended making a decision anyway, even though outside work may indeed force a change.

Feary expressed concern that there will be no time to implement any of the Asian monsoon drilling, and if so wondered about the purpose of the Asian Monsoon DPG. Früh-Green said it was too late to implement any of the Asian monsoon proposals before FY2010. Katz reminded the committee that the OTF needs to put together a schedule soon for review in five to six months. He said that both the OTF and EPSP need something to work with and enjoined the committee to pick an ocean. Ruppel commented that the *JOIDES Resolution* would likely be available only one year before SPC Consensus 0708-33 takes effect (i.e., U.S. FY2010, which starts 1 October 2009). Früh-Green said that there are still many high priority proposals in the Pacific, so that if it were possible to find enough non-IODP work in the Pacific it would be acceptable to stay there, and then go to the Atlantic in FY2011; but she did not want to give the impression that the Pacific was monopolizing the IODP platforms. Kawahata wondered why the ship should go to the Atlantic when there are so many high priority Pacific proposals. Behrmann said that, with the tier concept, he thought the OTF would develop options for all three ocean basins. He called the decision on where to send the *JOIDES Resolution* in FY2010 a minor point because the decision will be based on non-IODP work. Janecek said that, in that case the SPC will not receive as rigorous an evaluation as usual of the options at its August 2008 meeting. He said that the OTF will have to investigate many options and there would be many caveats. He suggested that the SPC would have to approve a series of options and then let the OTF take care of it after that. Peterson asked about the time frame for knowing where non-IODP work will be. Divins said that he hoped to have some sense of that for FY2009 in three months. Mori said he sensed a desire to keep the *JOIDES Resolution* in the Pacific. Behrmann said he recommended maintaining SPC Consensus 0708-33. van der Pluijm asked how the SPC can change its decision within six months, and he said that if the decision is changed, the SPC should explain the reasons for why it was changed so quickly. Mori asked for the opinion of all the SPC members, including non-voting members. All but Behrmann favored keeping the *JOIDES Resolution* in the Pacific. Based on that response, Mori asked for, and received, a consensus to rescind SPC Consensus 0708-33 and keep the *JOIDES Resolution* in the Pacific for FY2010.

SPC Consensus 0803-29: Due to changing operational constraints and changes in the
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FY2009 schedule, the SPC rescinds SPC Consensus 0708-33 on approval of the Atlantic Ocean as the top priority ocean basin for FY2010 *JOIDES Resolution* operations. Instead, the SPC approves the Pacific Ocean as the top priority ocean basin for FY2010 *JOIDES Resolution* operations.

21. Expedition 310 (Tahiti Sea Level) Review

Due to a lack of time the review was deferred until the August 2008 SPC meeting.

22. Other business

The committee did not raise any other business for discussion.

23. Review of motions and consensus items

Katsumi Marumo presented a tribute in recognition of Harue Masuda, who is rotating off of the SPC. Hugh Jenkyns presented a statement of gratitude to Rolf Pedersen, who is also rotating off of the SPC, noting that he was the man who took the SPC to sea on a field trip. Jim Mori thanked Angelo Camerlenghi and his colleagues for hosting the meeting.

SPC Consensus 0803-30: A thousand thanks to departing SPC member Harue Masuda, from whom the Japanese SPC members learned the importance of speaking, asking, and discussing during the meeting. She definitely helped to change the image of Japanese SPC members. We will never forget her contribution. Without her efforts, we could not have enjoyed last year's SPC meeting in Osaka. We will miss Harue, but we will never forget her skilled Osaka Japanese English!

SPC Consensus 0803-31: The SPC offers its grateful thanks to Rolf Pedersen for his valiant efforts while a member of the Science Planning Committee and his generous and imaginative hosting of the 2006 August SPC meeting in Bergen. His informed observations on petrology, plate dynamics and sea-floor biology – and the interrelationships between these three separate disciplines – have guided the SPC in its decision-making process. He will be much missed.

SPC Consensus 0803-32: The SPC thanks Angelo Camerlenghi and his colleagues for their efforts in hosting the SPC meeting at the magnificent Universitat de Barcelona. The SPC also thanks Miguel López-Blanco for leading a splendid field trip to the surroundings of the Montserrat.

24. Future meetings

24.1. Liaisons to other panels and programs

Mori suggested doing this over email. Behrmann recommended clarifying the liaisons now. The committee identified its liaisons for each of the upcoming SAS meetings as follows:

EDP: Mori

EPSP: Mori

SSEP: Mori

SSP: Because Lee cannot attend, Mori suggested that a to-be-named Japanese member should act as liaison for the July meeting, which will be in Busan, Korea. It was later decided that Katsumi Marumo would be the liaison.

STP: Liaison will depend on location of the July 2008 meeting. If in Canada, then a U.S. member will attend. Subsequently the location of the next STP meeting was determined to be Edmonton, Canada. The liaison would be a to-be-named U.S. member. It was later decided that Steve D'Hondt would be the liaison.

IIS PPG: Mori said that this will be clarified later by email.

24.2. 12th and 13th SPC meetings

24.2.1. August 2008; Sapporo, Japan

Mori announced that the next meeting would take place in Sapporo, Japan in either the last or second to last week of August. The committee tentatively decided on dates of 25-28 August.

24.2.2. March 2009 (U.S.)

Mori asked the U.S. members to come up with suggestions.

Mori adjourned the meeting at 16:45.