

IODP Science Planning Committee**13th Meeting, 16–19 March 2009****Rosenstiel School of Marine and Atmospheric Science, University of Miami, Miami, USA*****Science Planning Committee (SPC)***

Keir Becker ^a	Rosenstiel School of Marine & Atmospheric Science, University of Miami, USA
Jan Behrmann	Leibniz Institute for Marine Sciences, IFM-GEOMAR, Germany
Donna Blackman	Scripps Institution of Oceanography, USA
Gilbert Camoin	CEREGE, Centre National de la Recherche Scientifique, France
David Feary	National Academy of Sciences, USA
Gabe Filippelli (vice chair)	Department of Earth Sciences, Indiana University-Purdue University, Indianapolis, USA
Gretchen Früh-Green	Institute for Mineralogy and Petrology, ETH Zurich, Switzerland
Toshiya Fujiwara ^b	Institute for Research on Earth Evolution (IFREE), JAMSTEC, Japan
Chris Hollis ^c	GNS Science, New Zealand
Teruaki Ishii ^d	Institute for Research on Earth Evolution (IFREE), JAMSTEC, Japan
Hugh Jenkyns	Department of Earth Sciences, University of Oxford, United Kingdom
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
Akihiko Maruyama*	National Institute of Advanced Industrial Science and Technology, Japan
Takeshi Matsumoto*	Department of Physics and Earth Sciences, University of the Ryukyus, Japan
James Mori (Chair)	Disaster Prevention Research Institute, Kyoto University, Japan
Naohiko Ohkouchi*	Institute for Frontier Research on Earth Evolution (IFREE), JAMSTEC, Japan
Makoto Okada ^e	Department of Earth Sciences, Ibaraki University, Japan
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
David Smith*	Graduate School of Oceanography, University of Rhode Island, USA
Eiichi Takazawa ^f	Department of Geology, Niigata 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 ^g	Extremobiosphere Research Center (XBR), JAMSTEC, Japan

^aAlternate for David Smith^bAlternate for member replacing Katsumi Marumo^cAlternate for permanent ANZIC member^dAlternate for Hiroaki Sato^eAlternate for Takeshi Matsumoto^fAlternate for Naohiko Ohkouchi^gAlternate for Akihiko Maruyama

*Unable to attend

Liaisons, Guests, and Observers

Jamie Allan	National Science Foundation (NSF), USA
Se Won Chang	Korea Institute of Geoscience and Mineral Resources (KIGAM), Korea
Brad Clement**	U.S. Advisory Committee (USAC), Consortium for Ocean Leadership, USA
David Divins	Consortium for Ocean Leadership, USA
Nobuhisa Eguchi	Center for Deep Earth Exploration (CDEX), JAMSTEC, Japan
Dan Evans	ECORD Science Operator (ESO), British Geological Survey, UK
Neville Exon	Australia-New Zealand IODP Consortium (ANZIC), Australia
Benoît Ildefonse (InterRidge)	Department of Geosciences, Montpellier University, France
Akira Ishiwatari (SSEP)	Center for Northeast Asian Studies, Tohoku University, Japan
Tom Janecek	IODP Management International, Inc., Washington, D.C. Office, USA
Hiroshi Kawamura	IODP Management International, Inc., Sapporo Office, Japan
Shin'ichi Kuramoto	Center for Deep Earth Exploration (CDEX), JAMSTEC, Japan
Hans Christian Larsen	IODP Management International, Inc., Sapporo Office, Japan
Alberto Malinverno	Borehole Research Group, Lamont-Doherty Earth Observatory, USA
Mitch Malone	Integrated Ocean Drilling Program, Texas A&M University, USA

13th SPC (16–19 March 2009) Meeting

Charna Meth	United States Science Support Program (USSSP), The Consortium for Ocean Leadership, USA
Catherine Mével	ECORD Managing Agency (EMA), Paris Geophysical Institute (IPGP), France
Greg Myers	IODP Management International, Inc., Washington, D.C. Office, USA
Toshiyuki Oshima	Ministry of Education, Culture, Sports, Science, and Technology (MEXT), Japan
Jin-Oh Park (SSP)	Ocean Research Institute, University of Tokyo, Japan
Saneatsu Saito (STP)	Institute for Research on Earth Evolution (IFREEE), JAMSTEC, Japan
Jeff Schuffert	United States Science Support Program (USSSP), The Consortium for Ocean Leadership, USA
Manabu Tanahashi (EPSP)	Institute for Geo-Resources and Environment, National Institute of Advanced Industrial Science and Technology (AIST), Japan
Shouting Tuo	IODP China, Tongji University, China
Keita Umetsu	Advanced Earth Science & Technology Organization (AESTO), Japan
Bill Ussler (EDP)	Monterey Bay Aquarium Research Institute, USA
Bonnie Wolff-Boenisch	ECORD Science Support & Advisory Committee (ESSAC), France
Barry Zelt	IODP Management International, Inc., Sapporo Office, Japan

** Alternate for Keir Becker during agendum 17

IODP Science Planning Committee

13th Meeting, 16–19 March 2009

Rosenstiel School of Marine and Atmospheric Science, University of Miami, Miami, USA

EXECUTIVE SUMMARY (v1.1)

1. Introduction

1.3. Approve SPC meeting agenda – highlight action items

SPC Consensus 0903-01: The SPC approves the agenda of its thirteenth meeting on 16–19 March 2009 in Miami, USA.

1.4. Approve last SPC meeting minutes

SPC Consensus 0903-02: The SPC approves the minutes of its twelfth meeting on 25–27 August 2008 in Sapporo, Japan.

1.5. Items approved since the August 2008 meeting

SPC Motion 0902-01: The SPC supports the scientific objectives of Proposal 739-APL Bering Sea Subseafloor Life, which should provide important information for compiling the microbial activity in the global subseafloor, as well as for understanding the responses of microbial communities to a variety of settling particles. The SPC forwards this ancillary project letter (APL) to the Operations Task Force (OTF) and recommends that it be scheduled in FY2009.

Camoin moved, Tokunaga seconded, 13 in favor (Blackman, Camoin, Feary, Filippelli, Früh-Green, Jenkyns, Maruyama, Matsumoto, Mori, Ohkouchi, Peterson, Tokunaga, van der Pluijm), 1 abstained (Sato), 2 did not vote (Ruppel, Smith), 3 non-voting (Behrmann, Lee, Li).

6. Science Advisory Structure (SAS) reports

6.4. Scientific Technology Panel (STP)

SPC Consensus 0903-03: The SPC accepts STP Consensus 0903-04 on suggested modifications to the IODP-MI at sea engineering testing time policy and notes that it is consistent with the allocation of ship time, as stated in SPC Consensus 0903-07.

SPC Consensus 0903-04: The SPC receives STP Consensus 0903-11 on the allocation of rig time for static testing and calibration of the newly installed wireline heave compensation system, and forwards it to IODP-MI for consideration.

SPC Consensus 0903-05: The SPC accepts STP Consensus 0903-13 on the white paper review by the Engineering Development Panel (EDP).

7. Approve new SSEP co-chair

SPC Consensus 0903-06: The SPC appoints Marta Torres as co-chair of the Science Steering and Evaluation Panel (SSEP), effective immediately.

10. Expedition scheduling for APLs and engineering development

SPC Consensus 0903-07: The SPC adopts the principle that time be allocated in each IODP platform schedule to accommodate ancillary project letters (APLs) and engineering testing, and forwards this to the Operations Task Force (OTF) and implementing organizations (IOs)

for implementation. As a guideline, three days per two-month expedition (i.e., less than 10% of on-site time) should be allocated for these activities. If the OTF determines that there is no appropriate engineering testing or approved APL for a given expedition, the time will transfer to the scientific objectives of the expedition.

16. Global ranking of proposals I

16.1. Select proposal pool to rank

SPC Consensus 0903-08: The SPC will include in the ranking pool all twenty-eight proposals reviewed at this meeting.

17. Presentation and discussion of ancillary project letters (APLs)

SPC Consensus 0903-09: The SPC forwards Proposal 734-APL Cascadia Accretionary Prism CORK to the Operations Task Force (OTF).

SPC Consensus 0903-10: The SPC forwards Proposal 738-APL Nankai Trough Submarine Landslides to the Operations Task Force (OTF) and recommends that the proponents reinstate the wireline logging plan.

18. Global ranking of proposals II

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

SPC Consensus 0903-11: The SPC forwards the top ten of twenty-eight ranked proposals to the Operations Task Force (OTF) for potential future scheduling, with necessary consideration of site survey data, as stated in SPC Consensus 0903-13.

SPC Consensus 0903-12: The SPC designates Proposals 636-Full3 Louisville Seamounts and 662-Full3 South Pacific Gyre Microbiology as Tier 1 for the Pacific Ocean, Proposal 552-Full3 Bengal Fan as Tier 1 for the Indian Ocean, and Proposals 705-Full2 Santa Barbara Basin Climate Change, 716-Full2 Hawaiian Drowned Reefs, 549-Full6 Northern Arabian Sea Monsoon, 522-Full5 Superfast Spreading Crust, 537A-Full5 Costa Rica Seismogenesis Project Phase A, and 618-Full3 East Asia Margin as Tier 2 proposals. The SPC does not assign a tier to the mission specific platform (MSP) proposal 637-Full2 New England Shelf Hydrogeology.

SPC Consensus 0903-13: The “holding bin” exists for proposals that are designated to be forwarded to the Operations Task Force (OTF), but for which there are insufficient data for the Site Survey Panel (SSP) and/or the Environmental Protection and Safety Panel (EPSP) to confirm readiness for drilling. After the SSP and EPSP have confirmed readiness for drilling, the SPC chair is delegated to remove the proposal from the holding bin and either forward the proposal to the OTF or retain it at the SPC.

Following the March 2009 SPC ranking meeting, the following proposals reside in the holding bin:

	EPSP	SSP
549-Full6 Northern Arabian Sea Monsoon	x	ok
552-Full3 Bengal Fan	x	ok
618-Full3 East Asian Margin	x	ok
637-Full2 New England Shelf Hydrogeology	x	x
705-Full2 Santa Barbara Basin Climate Change	x	x
716-Full2 Hawaiian Drowned Reefs	x	x

SPC Consensus 0903-14: The SPC deactivates Proposals 535-Full6 Atlantis Bank Deep, 584-Full2 TAG II Hydrothermal and 612-Full3 Geodynamo because they have ranked low in the last several evaluations and realistically have little chance of being implemented within the current phase of the IODP which ends in 2013.

SPC Consensus 0903-15: The SPC may deactivate proposals after three rankings.

19. Discussion and prioritization of alternate riser proposals

SPC Motion 0903-16: The SPC asks IODP-MI to begin scoping of Proposal 618-Full3 East Asia Margin as a contingency for NanTroSEIZE.

Filippelli moved, Becker seconded, 14 in favor (Becker, Blackman, Camoin, Clement, Feary, Filippelli, Früh-Green, Jenkyns, Mori, Peterson, Ruppel, Takazawa, Tokunaga, Yamamoto), 3 opposed (Fujiwara, Ishii, Okada), 3 non-voting (Behrmann, Lee, Li), 1 absent (Hollis – non-voting).

23. Other business

SPC Consensus 0903-17: On the occasion of the first core being collected by the considerably improved *JOIDES Resolution* following its extensive refit, the SPC offers its thanks and congratulations to the numerous people who have contributed to this exciting milestone—the volunteers who developed the plans; NSF, Consortium for Ocean Leadership, and the USIO who implemented the plans; the RATs who tested the new systems; and the present shipboard party who collected this first core. We look forward to this exciting event re-energizing the broader community who can look forward to the innovative science resulting from renewed non-riser drilling in the IODP.

SPC Consensus 0903-18: The SPC eagerly anticipates simultaneous scientific drilling on all three IODP platforms, scheduled to occur in a few weeks. This represents the realization of the full IODP vision, characterized by international cooperation to explore the most important questions of climate change, ocean basin formation, and seafloor life. SPC urges IODP-MI to actively promote this hallmark event in coordination with program member offices, and encourages the Science Advisory Structure Executive Committee (SASEC) to consider how promotion might best be targeted to provide a lucid public vision of existing scientific achievements as well as the important science goals for the second half of this IODP phase.

24. Review of motions and consensus statements

SPC Consensus 0903-19: The SPC thanks Hiroaki Sato for his service on the SPC. He is recognized for his careful evaluation of proposals and insightful comments, especially in fields related to the petrology of volcanic and ocean crust rocks.

SPC Consensus 0903-20: The SPC thanks Larry Peterson for his efforts in hosting the thirteenth SPC meeting at the University of Miami, and thanks Charna Meth from Ocean Leadership for helping with the logistics. The SPC also thanks Larry and Dan DiResta for leading a most entertaining field trip to Everglades National Park.

IODP Science Planning Committee

13th Meeting, 16–19 March 2009

Rosenstiel School of Marine and Atmospheric Science, University of Miami, Miami, USA

FINAL MINUTES (v1.1)

Monday	16 March 2009	08:00-17:30
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1. Introduction

1.1. Call to order and introductions

SPC chair Jim Mori called the meeting to order at 08:10. All meeting participants introduced themselves. Behrmann stated that he was the non-voting European Consortium for Ocean Research Drilling (ECORD) member for this meeting.

1.2. Welcome and meeting logistics

Local host Larry Peterson welcomed the meeting participants to the University of Miami and outlined the logistics for the meeting.

1.3. Approve meeting agenda – highlight action items

Jim Mori summarized the major agenda items for the meeting: (1) review and ranking of twenty-eight proposals; (2) review of two ancillary project letters (APLs); and (3) discussion of future riser expeditions. He estimated that between 2010–2013 the program would complete 12–16 *JOIDES Resolution* expeditions and 3–6 *Chikyu* expeditions. Mori stressed that, given the limited time until the end of the current phase of the IODP in 2013, the decisions made by the committee at this meeting would essentially determine what the program may accomplish. These decisions, he added, would have an important bearing on the process of program renewal.

Mori noted that, as a result of yesterday's Operations Task Force (OTF) meeting, one additional item would be added to the agenda: "Expedition scheduling for APLs and engineering development" (agendum 10).

SPC Consensus 0903-01: The SPC approves the agenda of its thirteenth meeting on 16–19 March 2009 in Miami, USA.
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1.4. Approve last SPC meeting minutes

Jim Mori asked for comments or suggestions for changes to the draft minutes for the twelfth SPC meeting (August 2008, Sapporo, Japan). With no comments, the committee approved the minutes by consensus.

SPC Consensus 0903-02: The SPC approves the minutes of its twelfth meeting on 25–27 August 2008 in Sapporo, Japan.

1.5. Items approved since August 2008 SPC meeting

Jim Mori mentioned that normally he does not like to conduct committee business over e-mail because of the difficulty in communicating with a group of this size. Nevertheless, he noted that Expedition 323 (Bering Sea) presented scheduling constraints which required a quick decision on Proposal 739-APL Bering Sea Subseafloor Life, and which led to SPC Motion 0902-01.

SPC Motion 0902-01: The SPC supports the scientific objectives of Proposal 739-APL Bering Sea Subseafloor Life, which should provide important information for compiling the

microbial activity in the global seafloor, as well as for understanding the responses of microbial communities to a variety of settling particles. The SPC forwards this ancillary project letter (APL) to the Operations Task Force (OTF) and recommends that it be scheduled in FY2009.

Camoin moved, Tokunaga seconded, 13 in favor (Blackman, Camoin, Feary, Filippelli, Früh-Green, Jenkyns, Maruyama, Matsumoto, Mori, Ohkouchi, Peterson, Tokunaga, van der Pluijm), 1 abstained (Sato), 2 did not vote (Ruppel, Smith), 3 non-voting (Behrmann, Lee, Li).

Mori explained that he received a mixed message about the urgency of making a decision on Proposal 734-APL Cascadia Accretionary Prism CORK, thus although the committee started discussions by e-mail, these discussions were suspended and a decision on this APL was deferred to this meeting.

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 a 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 for the benefit of the participants whose first language is not English.

1.6.2. Conflict-of-interest policy and statements

Jim Mori reviewed the conflict-of-interest procedures for the meeting. He said it was important to show to outsiders looking in that the SPC conducts its business in a fair, non-biased way. He noted that the meeting participants should declare all potential conflicts now, including institutional conflicts, although in the past the committee has generally not regarded institutional conflicts as real conflicts. The committee members and other meeting participants declared the following direct or potential indirect conflicts of interest regarding potential discussions; the chair's ruling follows each member's declaration(s).

SPC member conflict-of-interest declarations:

Name	Declaration	Ruling by Mori*
Becker	a: Proponent: 734-APL Cascadia Accretionary Prism CORK b: involved with 677-Full Mid-Atlantic Ridge Microbiology c: Institutional: 535-Full6 Atlantis Bank Deep, 703-Full Costa Rica SEISCork d: Proponent on first versions of 553-Full2 Cascadia Margin Hydrates, 584-Full2 TAG II Hydrothermal; name later removed; was not asked to be a proponent	a: Conflict: 1 b: Conflict: 2 c: No conflict d: No conflict
Behrmann	Institutional: 633-Full2 Costa Rica Mud Mounds, CRISP proposals (537-CDP7, 537A-Full5, 537B-Full4). Co-chief on Expedition 308 (Gulf of Mexico Overpressures)	No conflict
Blackman	Institutional: 636-Full3 Louisville Seamounts; Listed by 636-Full2 proponent Gee as collaborator: sailed together twice; putting together manuscript on deep tow	

	data	No conflict
Camoin	Proponent: 519-Full2 Great Barrier Reef scheduled for August 2009	No conflict
Feary	Steering committee member of Ocean Drilling Consortium (use of <i>JOIDES Resolution</i> when off contract with the IODP)	No conflict
Filippelli	Institutional: 637-Full2 New England Shelf Hydrogeology	No conflict
Fujiwara	Institutional: 695-Full2 IBM Pre-arc Crust, 697-Full3 IBM Rear-Arc Crust, 698-Full2 IBM Arc Middle Crust. Co-wrote paper with 697-Full3 proponents Tamura and Shizuka on seamount in IBM arc.	No conflict
Hollis	Institutional: 600-Full Canterbury Basin	No conflict
Ishii	Institutional: JAMSTEC/IFREE.	No conflict
Jenkyns	Institutional: 661-Full2 Newfoundland Sediment Drifts	No conflict
Okada	Proponent: 477-Full4 Okhotsk/Bering Plio-Pleistocene	Conflict: 2
Peterson	Institutional: 734-APL Cascadia Accretionary Prism CORK	No conflict
Ruppel	Institutional: USGS/MIT 637-Full2 New England Shelf Hydrogeology, 589-Full3 Gulf of Mexico Overpressures	No conflict
Yamamoto	Institutional: JAMSTEC	No conflict

Observer and liaison conflict-of-interest declarations:

Name	Declaration	Ruling by Mori*
Exon	Institutional: 695-Full2 IBM Pre-arc Crust	No conflict
Ildefonse	Proponent: 551-Full Hess Deep Plutonic Crust: not on agenda.	No conflict
Malinverno	Institutional: 584-Full2 TAG II Hydrothermal	No conflict
Malone	Institutional: 567-Full4 South Pacific Paleogene, 581-Full2 Late Pleistocene Coralgal Banks, 669-Full3 Walvis Ridge Hotspot	No conflict
Park	Proponent: 603B-Full2 NanTroSEIZE Phase 2: Mega-Splay Faults scheduled for 2009	No conflict
Saito	Proponent: 537A-Full5 Costa Rica Seismogenesis Project Phase A, 703-Full Costa Rica SEISCork	Conflict: 3
Ussler	Institutional: 716-Full2 Hawaiian Drowned Reefs	No conflict

***Conflicts:**

- 1: Conflicted for agendum 17 (Presentation and discussion of APLs).
- 2: Conflicted for agendum 15 (Clarify status of proposals remaining at OTF).
- 3: Conflicted for agendum 14 (Presentation and discussion of proposals).

2. Agency reports

2.1. Lead agencies report

Toshiyuki Oshima reported that the lead agencies recently approved the FY2009 annual program plan. He said that rescheduling of expeditions was the main reason for the lateness of the approval. Oshima mentioned that the memoranda of understanding (MOU) between the lead agencies and a number of members (Australia/New Zealand, India, Korea, China) were as yet unsigned, but the wording of these memoranda was almost finalized. He added

that India will start as a member of the IODP this year. Korea and China are renegotiating their membership up to the end of the program in 2013.

Oshima reported that a proto-International Working Group “Plus” (IWG+) was set up at the January 2009 IODP Council meeting in Lisbon to discuss the new, post-2013 program. He said there was much discussion about the terms of reference of the IWG+; discussion on the final terms of reference is currently underway. Oshima noted that representatives of some European countries think that the post-2013 program should be an entirely new program. He added that the new program needs to be simplified and the time between proposal submission and drilling reduced. Oshima explained that the current program is based on the IODP Principles. The IWG+ will review the current principles and discuss the structure of the new program. The IWG+ will comprise one representative from each of the current IODP member countries. The group will also include observers from the IODP Science Advisory Structure (SAS), the implementing organizations (IOs), and IODP-MI. The first IWG+ meeting will be in June 2009 in Washington, DC in conjunction with the SASEC and IODP Council meetings.

Regarding MEXT activities, Oshima mentioned that last Friday the director of the NSF, Dr. Bement, met with the vice minister of MEXT, Mr. Sakata, and discussed the structure of the new program. Sakata welcomed the *JOIDES Resolution* back to international activity this month. Oshima added that MEXT appreciates the efforts of the NSF and Consortium for Ocean Leadership.

Filippelli asked how many members would comprise the IWG+. Hollis said there would be twenty-three. Mével said that ECORD will not send seventeen people, but will discuss internally and send fewer representatives to keep the size of the group down.

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

There was no separate MEXT report. See agenda 2.1.

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

Jamie Allan reported that he attended the recent meeting between NSF director, Bement, and the vice minister for MEXT, Sakata. At this meeting, Bement said he looks forward to an additional ten years beyond 2013; however, Allan noted that a post-2013 program will require approval of the NSF Science Board.

Allan noted that the NSF report in the SPC agenda book comprised a single picture (of the refurbished *JOIDES Resolution*), which he said was worth a thousand words. Having just returned from the Honolulu port call, where the NSF inspected the ship, Allan said the ship looks great. He added that a great debt of thanks was owed to the staff at Texas A&M University (TAMU), the Consortium for Ocean Leadership, and the Lamont Borehole Research Group for their hard work, as well as the staff of ODL who worked on the ship. Allan thanked the Readiness Assessment Team (RAT), which comprised volunteers who assessed the ship’s labs, software and instruments. He said that the team produced a valuable report showing that more work remains to be done, but that the ship is ready for operations.

Allan, saying these were “very unusual times,” reported that he had little financial information to report: the FY2009 budget is unknown even as the fiscal year is half over. Because the previous U.S. administration did not submit a budget to Congress for FY2010, the NSF cannot yet give guidance for that fiscal year, which complicates the planning process for everyone. Referring to the U.S. government’s recent stimulus package, Allan said that, although the numbers are not known, the net result is that it will be really good for the program.

Ruppel asked if there was any information from the NSF on funding for site surveys. After a quick e-mail check, Allan said no site surveys were funded from the last panel, but he hoped that with the stimulus package more money might become available to fund ODP science proposals.

2.4. ECORD Managing Agency (EMA)

Catherine Mével reported on a number of ECORD-sponsored IODP activities. Activities at the March 2009 EGU meeting include a joint IODP/ECORD booth, joint IODP-International Scientific Continental Drilling (ICDP) town hall meeting, and a session and workshop organized by the ECORD Science Support and Advisory Committee (ESSAC) to prepare for the IODP New Ventures in Exploring Scientific Targets (INVEST) conference in September 2009.

Mével described two recent Magellan workshops: Cold Water Carbonate Reservoir Systems in Deep Environments, held in Switzerland in January 2009, and Paleoenvironmental Evolution of the Baltic Sea through the Last Glacial Cycle, held in Denmark in March 2009. She hoped the latter would result in a proposal being submitted soon to the IODP.

Mével mentioned that the final report on the European Commission-funded program ECORD-Net, formed to develop the structure and mechanisms for coordinating and funding ocean drilling research in Europe, is now available. She stressed that ECORD does not receive money from the European Commission; funding comes from member countries.

2.5. China Ministry of Science and Technology (MOST)

Qianyu Li noted that China has yet to renew its membership in the IODP. He said that China is considering building a drilling vessel, with a decision to proceed to be made in two or three months. Li did not know the cost of such an endeavor. He added that China was also considering establishing marine centers in Shanghai and Guangzhou (Canton).

Allan said he understood that the plan was to build a ship which, in size, would be between the *JOIDES Resolution* and *Chikyu*. Li said that, at the moment, the plan was for a riser-equipped drillship similar in size to the *JOIDES Resolution*. He added that nothing has been decided yet, and the configuration would depend on how much money and expertise was available. It was also unknown if the ship would be used within the IODP.

Tuo said that China plans to build a new ship that would be slightly larger than the *JOIDES Resolution*, though the details have not been decided upon. He added that China does not have experience in building such a drilling vessel, and would require advice, for example, from the USIO and CDEX. Blackman asked if the ship would be used for academic or industry work. Tuo replied that it would be split between industry and science. He also stated that the ship would be used for IODP drilling. Mori commented that this would present another challenge for the funding agencies.

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

Se Won Chang noted that he would take over as K-IODP Project Manager from Young-Joo Lee; a new K-IODP office opened on 18 February 2009. Chang listed two recent (SSEP, SSP) and two potential upcoming (STP, SASEC) meetings in Korea. He announced that a meeting to discuss a possible Asian IODP consortium will be held in Busan on 23–24 April. Potential member countries would be Australia, New Zealand, Korea, India, Taiwan, and China. Chang reported that although no Korean scientists sailed on IODP expeditions in 2008, six were expected to participate in 2009. He reviewed past and recent joint symposiums, working groups, and seminars, noting that a new core repository (not for IODP use) would be built at KIGAM. Chang outlined K-IODP-funded areas of research, and reviewed support provided in 2008 and planned for 2009 for work on ODP and IODP data.

2.7. Australian Research Council (ARC)

Neville Exon stressed that Australia and New Zealand were concerned that the ANZIC memorandum of understanding (MOU) is still unsigned. This is causing problems and affecting New Zealand's efforts to secure longer term funding. The recent ~30% decline in the Australian versus U.S. dollar is a big problem. IODP Australia plans to ask the ARC for supplementary funds, and is fairly certain that funds to maintain the current membership level will be obtained.

Exon said that the planning for an Asian consortium, as mentioned by Chang in the KIGAM report, presented an opportunity to study the pros and cons of the idea. The principle advantage is that a consortium with full membership would have more clout. He said that for such a consortium to be viable, it would require full membership.

Exon mentioned that Australia is very enthusiastic about its membership in the IODP, and particularly interested in three upcoming expeditions: Canterbury Basin, Wilkes Land, and Great Barrier Reef Environmental Changes.

Chris Hollis explained that New Zealand was not a member of the DSDP or ODP, but was proud to have joined the IODP, bringing the number of members up to twenty-three. He stressed that New Zealand's membership is tentative; it has paid for membership this year, but funding is year by year. He also stressed the necessity of getting the MOU signed so that New Zealand is formally acknowledged as a member of the IODP. Hollis noted that New Zealand has a 5% membership, bringing the ANZIC membership up to 30%. He added that support of the local community was necessary to put pressure on funding agencies.

Exon mentioned that in terms of marine geoscience, New Zealand is probably stronger than Australia, so it would be very nice if New Zealand became a stronger member.

Allan, explaining the status of the ANZIC MOU, said it was "mired in bureaucracy". He suggested that the committee may wish to make a statement to request the funding agencies pursue signing of the MOU as quickly as possible. Becker said that the SASEC had already made such a statement.

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

3.1. Science planning report

Hans Christian Larsen reported on various IODP-MI activities related to science planning. He reviewed the SAS meeting schedule and presented statistics for the 105 currently active drilling proposals. He noted that the recent call for proposals (for the 1 April 2009 submission deadline) advertised in *Eos* specifically requested APL submissions and announced that the IODP now accepts fast-track complementary project proposals (CPPs) that include cost-sharing with proponents. Larsen mentioned that IODP-MI has received three inquiries about the CPP mechanism, but stressed that these expressions of interest were at a very early stage. The inquiries specifically asked about the required 70% third party funding, wondering approximately what this would mean in dollars. Larsen said he has talked to the IOs about expeditions costs. Referring to the specific request for APL submissions in the call for proposals, Larsen said that there are issues with APLs (e.g., the need for precise guidelines, timing of APL submission versus expedition start), some of which were discussed at yesterday's OTF meeting. He added that Filippelli would address this in more detail in agendum 10.

Larsen briefly reviewed recent workshops and recent and planned thematic reviews. The next thematic review will be on the deep biosphere and seafloor ocean, and will be held just prior to the INVEST meeting in September 2009. Filippelli asked if there would be enough time for a draft report from the thematic review to be available for the INVEST meeting.

Larsen said that the proximity of the meetings would make that difficult, but noted that most of the invited thematic review committee members would attend the INVEST meeting. Larsen also mentioned that the SASEC have considered having one more thematic review on the Nankai Trough Seismogenic Zone Experiment (NanTroSEIZE), although a decision on this has yet to be made.

Larsen addressed ECORD Council Motion 08-02-6 which expresses concern about a lack of progress on the deep biosphere initiative of the Initial Science Plan (ISP). He outlined a number of steps that have been made, including establishment of an IODP-MI task force on this topic, and noted that several mature proposals await ranking and scheduling.

Addressing contingency options for riser drilling should drilling at NanTroSEIZE not be possible (e.g., due to a strong Kuroshio current), Larsen listed four possible proposals for the SPC to consider: 537B-Full4 Costa Rica Seismogenesis Project (CRISP) Phase B, 595-Full3 Indus Fan, 618-Full3 East Asian Margin, and 698-Full2 Izu-Bonin-Mariana (IBM) Arc Middle Crust. He noted that addenda recently submitted for the latter two proposals greatly reduces the amount of drilling requested. This topic would be addressed in more detail in agendum 19. Larsen also explained the information requested from CDEX by IODP-MI and the SPC chair on the viability of each of the four potential contingency options. This would be addressed in more detail in agendum 11.

Larsen briefly mentioned several miscellaneous IODP-MI business items: the FY2009 annual program plan was approved in late February 2009; Dr. Kiyoshi Suyehiro will become President Elect of IODP-MI on 1 May 2009, and President and CEO on 16 May 2009; and budget guidance for FY2010 has not yet been provided to IODP-MI by the lead agencies. Finally, Larsen noted that the core redistribution project, which was completed in October 2008, illustrates the integrated nature of the program.

3.2. Operations Task Force (OTF) update / OTF functionality

Tom Janecek said there was nothing to add to what appears in the agenda book.

Ruppel asked about efforts to get South American countries such as Brazil to join the IODP. Larsen said he had no information, but that this would be within the purview of the President of IODP-MI.

At Mori's request Janecek displayed the current platform schedules. Mori noted that soon three platforms would be operating simultaneously for the first time. Feary asked if there were plans for publicity. Janecek replied that publicity was not within his purview. Ildefonse said that the subject is mentioned in the IODP e-news. Evans said that outreach efforts for the New Jersey expedition will stress all three platforms. Allan said that IODP-MI has issued a press release about the simultaneous operation of all three platforms. Larsen said a strong outreach effort was planned for the INVEST meeting, and the simultaneous operation of all three platforms can be stressed as a part of this. This topic was returned to in agendum 23.

4. Implementing Organization (IO) reports

4.1. Center for Deep Earth Exploration (CDEX)

Shin'ichi Kuramoto provided an update of CDEX activities. He mentioned that as of 1 December 2008 Mantle Quest Japan would be the new operator of *Chikyu*. Kuramoto reported that repair work on all of *Chikyu's* azimuth thrusters was completed in February 2009, and all six riser tensioners, damaged during a 2007 shakedown cruise, have been reinstalled. He also described several recent outreach activities.

Kuramoto presented the FY2009 expedition schedule for *Chikyu*, comprising two NanTroSEIZE Stage 2 expeditions:

Expedition 319	Riser/Riserless Observatory 1	5 May–31 August 2009
Expedition 322	Subduction Inputs 2	1 Sept.–10 Oct. 2009

Kuramoto also reviewed the Expedition 319 science party staffing rotation plan.

Exon asked about plans for *Chikyu* in 2010. Kuramoto said *Chikyu* would be used for non-IODP work, although no firm contract exists yet. *Chikyu* will return to IODP operations in FY2011.

4.2. U.S. Implementing Organization (USIO)

David Divins showed the current *JOIDES Resolution* expedition schedule:

Expedition 320	Pacific Equatorial Age Transect (PEAT) 1	5 March–5 May 2009
Expedition 321	PEAT 2/Juna de Fuca	5 May–5 July 2009
Expedition 323	Bering Sea	5 July–4 Sept. 2009
Expedition 324	Shatsky Rise	4 Sep. –4 Nov. 2009
Expedition 317	Canterbury Basin	4 Nov. 2009–4 Jan. 2010
Expedition 318	Wilkes Land	4 Jan.–9 March 2010

Divins gave a brief scientific overview of the PEAT, Bering Sea Paleooceanography, and Shatsky Rise Oceanic Plateau Formation expeditions. He said that hopefully by now the first core would have been acquired during the PEAT expedition, which began ten days ago.

Divins showed several pictures of the refurbished *JOIDES Resolution*, including accommodations, laboratories, core splitting/sampling room, offices and bridge. He said there were many challenges during the refurbishment project, but was very happy with the results. He stated that while the *JOIDES Resolution* has the same name, and looks similar to the previous version, it really is a brand new ship. Divins showed the first core taken during sea trials at ODP Site 807 at the Ontong Java Plateau.

Divins thanked the Readiness Assessment Team (RAT), saying they did an admirable job in looking at a variety of functions, including labs, staterooms, science systems, computers, and IT capabilities. In addition, the RAT reviewed all documentation, wrote a lot of documentation such as tutorials and templates that will make it easier for others to acclimatize to the new systems and applications. The RAT also made recommendations for future enhancements and wrote a detailed report which will be made available. Divins said that not everything on the ship is working perfectly, but the problems will be addressed as best as possible to make sure things work smoothly for those on the ship.

Divins reported that the USIO is working with KIGAM and the Korean National Oil Company on a planned gas hydrate expedition offshore Korea following the Wilkes Land expedition. He said he was confident this would take place.

Divins noted that Greg Myers of IODP-MI is leading a project for a dual gradient drilling feasibility study, which was completed in December 2008. He described the results as promising. The next step is to write a proposal to get the system installed on the *JOIDES Resolution* for testing.

Divins mentioned that reorganization of the USIO began at the beginning of March 2009. Interim director Steve Bohlen has implemented his staffing model. The USIO now has 110 staff at TAMU. Divins said the USIO is committed to deliver the same services to the best of its ability, but with a smaller staff, turnaround time for getting information may be slower. He explained that the management structure has been flattened; there are no more deputy directors. The director and five senior managers will lead the USIO from now on. Divins noted that two of the senior manager positions are currently unfilled.

Allan noted that the original proposal from the USIO in 2003 had 155 full-time equivalent (FTE) positions, and the hope was to maintain ODP service levels. Now with far fewer staff it should be expected that service levels will be lower. He added that it is very important to know that the USIO has a core of good, experienced, enthusiastic technical and scientific staff. Allan said the NSF has been really impressed with the staff.

Peterson asked about the manager categories. Divins explained there were managers for (1) science operations (Mitch Malone); (2) tools, databases, and curation; (3) technology services; (4) publications; and (5) administrative services.

Ildelfonse asked if there was any information available on the dual gradient drilling study. Myers explained that the project was funded by oil companies, which requested that the report remain confidential.

4.3. ECORD Science Operator (ESO)

Dan Evans reported that ESO plans to implement two expeditions in calendar year 2009:

Expedition 313	New Jersey Shallow Shelf	May–July 2009
Expedition 325	Great Barrier Reef Environmental Changes	October–December 2009

Evans provided an update on the status of planning for New Jersey Shallow Shelf, noting that a contract is in place to use the liftboat *Kayd*, with mobilization in Atlantic City, New Jersey starting around 28 April and an expedition start date of around 2 May. He added that current estimates suggest the budget will allow for eighty days of coring, wireline logging and VSP. Evans explained that due to contractual issues ESO could not accept the risks associated with implementing LWD on the *Kayd*. Evans also reported that Jean-Noel Proust was a new co-chief for Expedition 313; the onshore science party will be held in Bremen starting 6 November.

Evans, reporting on the Great Barrier Reef Environmental Changes expedition, noted the new expedition name. He said that positive contract negotiations for a rig have been ongoing and a successful outcome is anticipated. ESO and the contractor have submitted a permit to operate in Australian waters. Evans noted that Proposal 728-APL2 Gulf of Papua Coralgal Barrier Reef will not be implemented as part of Expedition 325 due to a lack of site survey data for the APL. Mobilization for the expedition will be in Singapore or Townsville, but scientists will embark and disembark in Townsville. Evans added that the timing for the expedition was flexible, with a probable late October or earliest November start for the 45-day expedition.

Schuffert asked about the likely dates for the sampling parties for both expeditions. Evans answered: 6 November for Expedition 313; 16 April 2010 for Expedition 325.

Feary asked if, in terms of the SPC's process in dealing with Proposal 728-APL2, there were any issues. Mori said he did not think so. Evans explained that ESO had to submit a permit application at least six months ahead of time, which gave a definite deadline for planning.

5. Science Advisory Structure Executive Committee (SASEC) report

Jim Mori touched on three issues addressed at the January 2009 SASEC meeting: the FY2009 annual program plan; SPC proposals; and SAS structure. Mori said one of the mandates of the SASEC is to approve the annual program plan, so at the January 2009 meeting there was discussion about the budget and budget process. He said there are many details that even the SASEC cannot evaluate, but noted that the cuts to publications were reinstated. Mori said the SASEC also discussed how proposals are dealt with at the SPC. The SASEC noted the high priority of riser drilling, and also addressed the issue of the large number of proposals in the system. Mori said the SASEC felt there was a need to reduce the

number of proposals residing with the SPC and OTF. He said the SPC should consider deactivating some proposals. He added that the SASEC strongly supports the work done by the SPC. Mori mentioned that the SASEC also discussed evaluating the SAS structure (again), to look for places to change the system to make it work better and save money. He said the SASEC will likely have some strong recommendations that will be applicable for renewal, though it was not clear if there would be any drastic changes prior to renewal. Mori said that currently there are three layers of management and decision making in the program: the SPC, SASEC, and Board of Governors. The SASEC discussed the possibility of reducing this to two bodies.

Ruppel pointed out that the SASEC has previously stated the committee could be eliminated, but they have a vested interest in not voting themselves out of existence. She wondered how it would end this time. Mori said the SASEC was aware of this. Becker mentioned that the SASEC appointed two subcommittees: one to study functions of the Board of Governors and the SASEC, another to evaluate models of proposal evaluation for the program after renewal (Becker noted he was on the latter subcommittee). He added that it was not clear how the efforts of the latter subcommittee would mesh with those of the IWG+.

Ruppel noted that the ad hoc committee report is available on the IODP web site. She said this report shows a very different perspective on things. Feary agreed, saying it contained a lot of commentary about the proposal process; he thought many of the comments in the report indicated there was some misunderstanding by many people on the amount of nurturing of proposals within the IODP. He encouraged everyone to send comments to Becker. Filippelli said that he was a member of the ad hoc committee. He suggested that the report has some compromised language because not everyone understood the system.

6. IODP Science Advisory Structure (SAS) reports

6.1. Science Steering and Evaluation Panel (SSEP)

Akira Ishiwatari presented a report on the November 2008 SSEP meeting, at which the panel reviewed thirty-four proposals, including four with new external reviews. He noted that an unusual feature of the meeting was the re-evaluation of eleven proposals residing with the SPC or OTF for the purpose of assigning star groupings. He summarized the dispositions of the proposals, noting that three other proposals were selected for external review. Of the eleven older proposals residing with the SPC and OTF, five were assigned a star grouping of four, two received three stars, and four were not assigned stars. Of the four that were not assigned stars, Ishiwatari noted that the SSEP recommended that two of these be updated. He also mentioned that the SSEP, in Consensus 0811-4, requests that the Engineering Development Panel (EDP) evaluate the technical aspects of Proposal 734-APL Cascadia Accretionary Prism CORK. Finally, Ishiwatari reviewed SSEP member rotations and noted the next meeting would be 25–28 May 2009 in Utrecht, The Netherlands, with the subsequent meeting likely in Melbourne, Australia in late November 2009.

Camoin wondered why some of the older SPC and OTF proposals were not assigned a star grouping. Ishiwatari explained that some of them need to be revised before the SSEP can assign a star grouping; the SSEP also recommended that two proposals be deactivated. Mori noted that the latter recommendation did not go back to the proponents; it was a recommendation to the SPC.

6.2. Site Survey Panel (SSP)

Jin-Oh Park provided a brief review of the February 2009 SSP meeting, noting that eleven full proposals, two preliminary proposals, and four APLs were reviewed. Of these, Park provided detailed information on the site survey status of the nine proposals residing with the SPC and OTF. He noted that the next meeting is planned for Austin, USA in late July 2009.

Camoin noted that the site classifications for Proposal 716-Full2 Hawaiian Drowned Reefs changed significantly since the previous SSP review in February 2009. Ruppel noted that for Proposal 698-Full2 IBM Arc Middle Crust, the SSP has requested a crossing OBS line. Referring to the same proposal, Ildefonse noted that the SSP site classification was 2 (substantial required items not submitted to the SSDB). He wondered for this type of deep crustal drilling what, in the opinion of the SSP, was the target that needed to be imaged. He added that an SSP classification of 2 could kill a proposal. Larsen suggested that it was not just a case of seismic imaging; mapping of the seafloor can also be important. He said there was no single answer when it comes to imaging in the basement; it is a case-by-case situation.

6.3. Environmental Protection and Safety Panel (EPSP)

Manabu Tanahashi provided a summary of EPSP activities before, during and after its last (June 2008) meeting. Prior to the meeting the EPSP approved one site for the Bering Sea and several NanTroSEIZE sites. Two special EPSP review meetings were held in Japan in September and October 2007 to look at pressure estimation and the drilling plan for NanTroSEIZE Stage 2 operations. Stage 1 expeditions (314, 315 and 316) were also reviewed. EPSP activities after the June 2008 meeting included two drilling hazard peer review meetings for NanTroSEIZE Stage 2 in October 2008 and February 2009 in Japan.

Results of the June 2008 EPSP meeting include: (1) for Proposal 605-Full2 Asian Monsoon all ten sites were recommended for approval as requested; (2) for Proposal 519-Full2 South Pacific Sea Level (Great Barrier Reef; Expedition 325) all thirty-eight sites were recommended for approval as requested, with approval applying to a 250m-diameter around each site; (3) for Proposal 600-Full Canterbury Basin (Expedition 317) a decision on two alternate sites was deferred pending inspection of additional data (the sites were later recommended for approval via e-review); (4) for Proposal 482-Full3 Wilkes Land Margin (Expedition 318), four alternate sites were recommended for approval as requested; (5) for Proposal 601-Full3 Okinawa Trough Deep Biosphere thirteen of seventeen sites presented were recommended for approval as requested; and (6) for Proposal 633-Full2 Costa Rica Mud Mounds nine of twelve sites presented were recommended for approval, either as requested or after relocation by the EPSP.

Additional post-June 2008 EPSP activity included: (1) e-review of a revised safety package for Canterbury Basin, which was recommended for approval; (2) e-review of NanTroSEIZE site NT2-13A, which was recommend for approval; (3) e-review of re-entry at Ontong Java sites 807, 1330A–C for sea trials of the *JOIDES Resolution*; and (4) discussion of visual monitoring of shallow fluid flow (“blind drilling”). For the latter, the EPSP recommended visual observation by ROV/UWTV and MWD/LWD of shallow water and gas flow at potentially hazardous sites.

Allan stated that during the last six weeks he has been dealing extensively with environmental issues, including examining the process of getting clearance for doing VSP and seismic surveying with the *JOIDES Resolution*. He said that the environmental review could not move forward without EPSP review. Allan said he noticed an absence of discussion in the EPSP minutes on how VSP and seismic profiling might affect marine mammals and turtles; he said these discussions should appear in the minutes. He wondered if there was an issue with EPSP expertise. Tanahashi replied that, up to now, the EPSP has not discussed marine mammals; only seafloor species. He thought marine mammals and turtles were not a critical issue for drilling; it is more of an issue for site surveys. Ruppel stated that she has spent a lot of time dealing with these types of issues, which she said were primarily U.S. issues. Furthermore, if expertise was added to the EPSP, all the panel could do was to add

comments in the minutes. She wondered if changing the EPSP to accommodate expertise on marine mammals would be asking too much. Blackman pointed out that it is not always possible, a priori, to rule out potential impact. For example, hard rock re-entry system (HRRS) hammer-in work within the sound channel can generate sound that propagates to large range; however, levels and bandwidth have not been ascertained and no adverse impact has been observed.

6.4. Scientific Technology Panel (STP)

Saneatsu Saito presented a report on the March 2009 STP meeting, at which fifteen consensus statements were generated. He presented four statements relevant to the SPC. Saito presented STP Consensus 0903-01 on the use of a new high-resolution magnetic susceptibility sonde on Expeditions 320 and 321 (Pacific Equatorial Age Transect, Parts 1 and 2). He noted that this third-party tool was designed and tested by the Lamont-Doherty Earth Observatory (LDEO) Borehole Research Group. Deployment of the sonde was approved by the OTF via e-mail. Mori said that the SPC did not need to act on the recommendation. Becker pointed out that the IODP third-party tools policy mentions that implementation of a third-party tool on an expedition requires approval by the SPC. Janecek explained that the wording of the policy was an artifact of the revision process. He said that instead of “SPC”, the policy should read “SAS”. He described the implementation of third-party tools as basically an OTF issue, except perhaps for the case where large resources or extra time are required for implementation. Janecek added that IODP-MI plans to revise the third-party tools policy to reflect this process.

STP Consensus 0903-01: Use of Magnetic Susceptibility Sonde on IODP Expeditions 320-321. Further to STP Consensus Statements 0807-02 (Magnetic Susceptibility Tool and Downhole Magnetometer Proposal) and 0802-15 (New down-hole magnetic susceptibility tool (MSS)), STP recommends that the recently (Exp. 320T) field-tested Magnetic Susceptibility Sonde (MSS) be deployed on IODP Expedition 320/321 (PEAT I-II) to help achieve the scientific objectives of the expedition. STP recognizes that urgent action is required for this approval, feels it is warranted, and notes that one of the tool PIs is sailing on the expedition.

Saito presented STP Consensus 0903-04 on suggested modifications to the proposed IODP-MI at sea engineering testing time policy. Discussion on this item was deferred until after agenda item 9.2 on protocols for engineering test time on IODP platforms. At that time Janecek stated that the STP would be involved in the final test reports. He added that the goal was to have a STP representative attend the Operations Review Task Force meetings.

STP Consensus 0903-04: Suggested modifications to the IODP-MI at sea engineering testing time policy. STP endorses the ‘at sea engineering testing time policy’ proposed by IODP-MI and also already endorsed by EDP (EDP consensus statement 0901-07). The panel suggests the policy be modified to include STP as a recipient of all final test reports, the time needed between request and ship time to be specified, and that specific proponent responsibilities be made clear. STP notes that scheduling ship time for at sea testing needs to be flagged to the expedition management team by the pre-cruise meeting and be part of the expedition’s operation plan.

SPC Consensus 0903-03: The SPC accepts STP Consensus 0903-04 on suggested modifications to the IODP-MI at sea engineering testing time policy and notes that it is consistent with the allocation of ship time, as stated in SPC Consensus 0903-07.

Saito presented STP Consensus 0903-11 on the allocation of rig time for static testing and calibration of the newly installed wireline heave compensation system. He explained that the system would provide active correction to the depths of the logging tools that otherwise would be compromised by vertical movements of the ship. Further tests are necessary to build experience in differing sea conditions and to improve the quality of logging data. Saito also mentioned that the same system is employed on *Chikyu*, therefore the information obtained on the *JOIDES Resolution* will be useful for *Chikyu* logging operations.

Kuramoto pointed out that the sort of tests described were not feasible on *Chikyu*. Becker asked for clarification on the static tests; he asked about the reference for such a test. Saito explained that the test comprised lowering the tool and leaving it for one hour to monitor heave change. Malinverno added that the tool has an accelerometer to make measurements in real time. The objective is to see if there is any time lag which could be corrected by making adjustments to the heave compensation system. Blackman asked what was known about the accelerometer. Malinverno replied that the same instrument was used in the FMS and FMI imaging tools. Blackman wondered if they had been carefully calibrated. Malinverno said yes.

Feary expressed concern over the extent to which these tests would be obligatory in the future, because presumably at some time in the future there will be enough information so that doing these tests will not be necessary. Malinverno agreed. Feary added he was also concerned about establishing a policy that would require testing when it was unnecessary. Malinverno said that data are required at different water depths. He suggested that at the end of the current schedule enough test data may exist. Myers noted that the heave compensator on the *JOIDES Resolution* was moved forward on the ship and is now more efficient. He said the time saving from this increased efficiency could be used to do the testing. Ruppel wondered if it was necessary to conduct the test at each site. Malinverno explained that it would be best to have the flexibility to do the test at each site. Kuramoto explained that for *Chikyu* there is a time issue problem. Ruppel stated she would not approve the testing if it did not apply to *Chikyu*. She said it would be unfair if the testing only applied to the *JOIDES Resolution*. Janecek asked about the time required for testing. Malinverno replied one hour. Janecek said that if the SPC is going to worry about one hour of operations “this program is done.”

STP Consensus 0903-11: Allocation of rig time for static testing and calibration of newly installed wireline heave compensation system. STP thanks Jennifer Inwood for her presentation on the recent operation and successful test of the newly installed wireline heave compensation system on the JR during Expedition 320T. The STP recommends for upcoming expeditions that appropriate rig time on the JR and *Chikyu* be allocated at the beginning of logging operations at each site for a static test which is necessary for the further calibration and adjustment of the new wireline heave compensation system.

SPC Consensus 0903-04: The SPC receives STP Consensus 0903-11 on the allocation of rig time for static testing and calibration of the newly installed wireline heave compensation system, and forwards it to IODP-MI for consideration.

Saito presented STP Consensus 0903-13 on the EDP’s white paper review.

STP Consensus 0903-13: EDP Report and White Paper Review. STP would like to thank Bill Ussler for his presentation on the EDP report. STP continues to communicate closely with EDP especially for facilitating the linkage between our two roadmaps. STP is also willing to

review the EDP White Paper on the technological needs of scientific ocean drilling for the INVEST meeting. STP will comment on the white paper in a timely manner.

SPC Consensus 0903-05: The SPC accepts STP Consensus 0903-13 on the white paper review by the Engineering Development Panel (EDP).

Saito concluded by commenting that during its March meeting in Honolulu the STP toured the refurbished *JOIDES Resolution*. He said the panel was very impressed, especially with the core deck, which he described as very effective.

6.5. Engineering Development Panel (EDP)

Bill Ussler reported on the January 2009 EDP meeting. He presented EDP Action 0901-08 on the request by the INVEST steering committee for an EDP white paper on the technological needs of scientific ocean drilling.

EDP Action Item 0901-08: Request by INVEST Steering Committee for EDP White Paper on Technological Needs of Scientific Ocean Drilling. The EDP responds to the INVEST Steering Committee request for a white paper on the technological needs of scientific ocean drilling by establishing an EDP Ocean Drilling Technology White Paper Working Group. The working group and their assignments includes: Bill Ussler (coordinator), Yoshiyasu Watanabe (deep water drilling), Sumio Sakuma (high temperature drilling), Hiroshi Asanuma (high temperature measurements), John Thorogood (seafloor drilling systems), Maria Ask (geotechnical measurements), Roy Wilkins (in situ measurements), Leon Holloway (improving core quantity and quality), and Lothar Wohlgemuth (ultra-deep drilling).

Ussler presented EDP Consensus 0901-09 on the IODP-MI FY2010 engineering development plan.

EDP Consensus 0901-09: IODP-MI FY2010 Engineering Development Plan. The EDP reaffirms its endorsement of the existing IODP-MI FY10 Engineering Development Plan.

Ussler presented EDP Consensus 0901-10 on the STP science and technology roadmap.

EDP Consensus 0901-10: STP Science and Technology Roadmap. The EDP thanks Saneatsu Saito for his informative presentation of the STP Science and Technology Roadmap (STR). The STR is helpful for prioritizing several key EDP technical challenges. We acknowledge the need for continued collaboration.

Ussler noted that no SPC action was required. Mori said he was glad to see that the technical review system is working. Ussler agreed, saying it was in place and working.

7. Approve new SSEP co-chair

Jim Mori noted that Marta Torres was the SSEP's nomination for new co-chair. He asked for any comments or discussion on the nomination. With no comments, Torres was appointed as SSEP co-chair by consensus.

SPC Consensus 0903-06: The SPC appoints Marta Torres as co-chair of the Science Steering and Evaluation Panel (SSEP), effective immediately.

8. Nomination of SPC member for next thematic review committee (deep biosphere and subseafloor ocean)

Jim Mori stated that Tomochika Tokunaga would be the liaison to the next thematic review committee meeting on the topic of the deep biosphere and subseafloor ocean.

9. Engineering development issues

9.1. Engineering development update

Greg Myers gave a brief report on IODP-MI engineering activities. Before starting he noted that Becker has an engineering proposal (Simple Observatory) in the system; he wondered if Becker was conflicted. Mori ruled that Becker was not conflicted. Myers showed three-year engineering time horizons comprising: (1) active projects in FY2009 (Long Term Borehole Monitoring System, Simple Observatory Initiative, and Motion Decoupled Hydraulic Delivery System); (2) projects being prepared for implementation in FY2010 (Simple Observatory Initiative, Motion Decoupled Hydraulic Delivery System, and Multi-sensor Magnetometer Tool); and (3) projects in the planning phase for FY2011 (Simple Observatory Initiative, and Multi-sensor Magnetometer Tool). Addressing the Simple Observatory Initiative, Myers said that fabrication of the SCIMPI observatory was moving forward, hence the program would not have to decide between SCIMPI and S-CORK.

Turning to industry-funded projects, Myers provided a status report on the riserless mud recovery system. He noted that with this system, all platforms would benefit. Myers explained that the system would allow drilling in areas where there is a need to control overpressure, or drilling in very deep water. He added that industry is interested in the technology because (1) it is environmentally sensitive (all mud goes back to the drillship); and (2) it saves money. Myers noted that the cost to do a field test is \$30-40M; energy sponsors are not balking because they will save a significant amount of money using this system.

Allan pointed out that no co-mingled science operating costs (SOC) funds are being used to support this development. Myers concurred, adding that all work was done using industry money. He said there was a real scientific benefit to this system, and stated that the vision of big companies for the future (e.g., fifty years from now) is to eliminate the drillship and to use drilling equipment residing on the seafloor.

Feary asked how much time was needed for testing. Myers estimated two months at sea, and perhaps a total block of four months ship time. He explained that the proposed field trial would take place in 6000–9000m water depth. He added that to go really deep (e.g., 12000m) would require subsequent testing and would cost more. Myers said that major companies have funded the feasibility study and are now interested in testing; the next step is to procure the industry funding. He thought that scheduling a field trial would be a difficult issue, and suggested this might not happen until 2010 or 2011 in the Gulf of Mexico.

Früh-Green asked when a field trial could start. Myers replied that if funding was obtained now, the field trial could take place in about twelve months. He explained that some modifications to the ship would be necessary. Okada asked about the need for new guidelines, and whether the IODP third-party tool guidelines applied. Myers said that some of the third-party tool guidelines would come into play. Behrmann asked about the type of pipe that would be used to transfer the mud back to the ship. Myers explained that it depended on the water depth. For shallow water (<500m) a flexible hose could be used; for deeper water, steel casing would be required. He added that the system has already been deployed in more than fifty holes in water depths up to 1500m.

Ruppel suggested that this issue was outside the purview of the SPC; she called it more of a contractual issue. She expressed appreciation for the openness of IODP-MI to share this information, but suggested that the SPC can have nothing to say about it. Janecek stated that at some point the USIO may have to decide how to use the ship for non-IODP work; otherwise he agreed the subject was not within the purview of the SPC. Hollis wondered if, within the context of complementary project proposals (CPPs), this would be within the

scope of the SPC. He wondered if the technology would be attractive to outside agencies. Myers said he thought this was possible. Ruppel said that CPPs involve co-mingled funds, while testing the system would be totally outside IODP funding.

9.2. Engineering test time on IODP platforms (protocol)

Tom Janecek gave a brief presentation on engineering test time. Janecek noted that, eventually, engineering development projects have to be tested at sea. He said that SPC approval of the technology implicitly includes support for testing. Janecek described two types of requests for test time: (1) engineering development projects funded by IODP-MI through SOC funds, which include sea time in the development and testing plan; and (2) tools or equipment relevant to the IODP ISP or a particular scheduled expedition but funded outside IODP-MI SOC purview (i.e., third party tools, IO developments). He followed this with a description of the proposed engineering test time scheduling process: (1) all requests for engineering ship time would be submitted to IODP-MI throughout the fiscal year; (2) IODP-MI would compile the requests and prepare a presentation for review by the EDP and the IOs; (3) IODP-MI would incorporate advice and input from the EDP and the IOs into a testing plan that is forwarded to the OTF; and (4) should the OTF include engineering time in a proposed expedition schedule, the request would be presented at the annual August SPC meeting as part of an integrated expedition package. Janecek described issues associated with scheduling engineering test time as similar to those involved with scheduling APLs. He displayed sea testing time estimates for current engineering developments, noting that typically a couple of days are required for each project. Janecek noted that, currently, every expedition has fifty-six days; he suggested changing this to fifty-three days, which would leave three days for flexibility (e.g., for engineering development testing or implementation of an APL).

Ussler asked when (how many months in advance) the three days would transfer to the main expedition. Janecek explained that the schedule would be approved at the annual August SPC meeting; a short period of time after that would be needed to see if there is an APL or testing time that needs to be fit into the schedule. He suggested the latest that the three days would revert to the main expedition would be at the March SPC meeting (or seven to twelve months prior to the start of an expedition).

10. Expedition scheduling for APLs and engineering development

Gabe Filippelli presented an expedition scheduling plan for APLs and engineering testing, which basically echoed the process described by Janecek in agenda 9.2. He suggested that it was difficult to schedule APLs and engineering test time because of a perception that time is being unfairly carved out of the science plan. As a solution he suggested as a guideline setting aside three days in each ship track to accommodate engineering testing and/or APLs. Filippelli said that this would provide flexibility to achieve high-impact, high-risk science, as endorsed by the SPC in Consensus 0808-29 on expedition flexibility, and would allow for necessary engineering testing, which ultimately aids the entire program. He suggested that if the set-aside time was unused, it would be transferred to the main science plan. He also suggested that engineering testing requiring more than three days would require SPC approval.

Filippelli presented a draft statement for discussion. Becker commented that it was unclear if the term “ship track” includes mission-specific platform expeditions. Larsen stated that the such a policy would need SASEC approval. Filippelli’s statement was modified and presented again on Thursday. This statement was accepted by consensus of the committee.

<p>SPC Consensus 0903-07: The SPC adopts the principle that time be allocated in each IODP platform schedule to accommodate ancillary project letters (APLs) and engineering testing,</p>
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and forwards this to the Operations Task Force (OTF) and implementing organizations (IOs) for implementation. As a guideline, three days per two-month expedition (i.e., less than 10% of on-site time) should be allocated for these activities. If the OTF determines that there is no appropriate engineering testing or approved APL for a given expedition, the time will transfer to the scientific objectives of the expedition.

11. Readiness status of riser proposals / report on CRISP-B scoping

Jim Mori noted that deep riser drilling at NanTroSEIZE site NT3-01 was scheduled to begin in September 2010. He noted that the Kuroshio current may be unfavorable, hence the need for a contingency plan for riser drilling. In considering possible contingency options, Mori said that possible factors to consider are science, program balance, feasibility, and the ability to complete drilling by 2013. He said the latter was important to avoid having two unfinished riser projects at the end of the first phase of the program. Mori listed four riser proposals currently residing with the SPC or OTF: 537B-Full4 Costa Rica Seismogenesis Project Phase B (CRISP-B), 595-Full3 Indus Fan, 618-Full3 East Asia Margin, and 698-Full2 IBM Arc Middle Crust. Becker wondered if it was realistic to contemplate completing another riser project by 2013.

Shin'ichi Kuramoto presented the results of an initial study by CDEX on contingency options for riser drilling at NanTroSEIZE. He noted that the study arose from a request from Larsen and Mori for CDEX to investigate the readiness status of the four proposals listed above. Kuramoto explained that the CDEX and JAMSTEC position is that NanTroSEIZE is the current, prime riser project, consistent with the SASEC implementation plan. He added that deep riser drilling at site NT3-01 is the first priority of operation in FY2011, consistent with the consensus view of the NanTroSEIZE Project Management Team (PMT).

Kuramoto outlined requirements for a contingency project: (1) riser drilling; (2) within annual budget; and (3) ready to drill (i.e., sufficient site survey data, clearance, logistics, etc.). For each of the four proposals, Kuramoto provided details regarding site survey readiness, site survey plans, permitting issues, potential supply and logistics issues, weather window, and time estimates. He provided a summary of the viability of each proposal, mentioning that: (1) Proposal 698-Full2 IBM Arc Middle Crust is viable as a contingency operation, but needs a current monitoring survey; (2) Proposal 618-Full3 East Asia Margin has proposed sites located in disputed waters where national boundaries are not clear and safety is a concern; (3) Proposal 537B-Full4 CRISP-B would have a large budgetary impact because of difficulties with logistics; and (4) Proposal 595-Full3 Indus Fan would be very difficult to implement, primarily because the Japan Ministry of Foreign Affairs does not favor *Chikyu* operating in Pakistan's EEZ.

Larsen said it would be very helpful if the SPC were to request more details on a couple of proposals. He said that scoping four proposals would be difficult. Discussion on this topic was continued in agenda item 19.

12. Summary of prior achievements and thematic review reports

Han Christian Larsen presented a report on preparing for renewal review, in which he summarized progress towards achieving the scientific objectives set out in the ISP. He described the ISP as a sort of contract with the funding agencies that describes what the program will accomplish. He suggested it was necessary to package proposals in a focused way to address ISP themes.

Larsen reviewed the ISP initiatives, noting that several (gas hydrates, extreme climates, rapid climate change, large igneous provinces, twenty-first century Mohole, seismogenic zone) have been addressed by IODP drilling, while a few (deep biosphere, continental breakup and

basin formation) have not. For each theme Larsen reviewed the achievements and activity to date such as workshops and detailed planning groups (DPGs) where applicable, as well as forthcoming opportunities.

Mori noted that Larsen's presentation contained a lot of good information. He mentioned that at the August 2008 SPC meeting, the committee talked at length about how to rank proposals, with a general agreement to rank by science and relevance to the ISP. Mori said there were varying opinions on other factors (e.g., societal relevance, observatories), and these should be considered when ranking and sending proposals to the OTF.

Tuesday	17 March 2009	08:00-17:30
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13. Review and ranking procedures / Tier 1 and Tier 2 definitions

Jim Mori reviewed the SPC proposal review and ranking procedures. He noted that each review was nominally allotted twenty-five minutes. 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 noted that the order of proposal reviews would be changed to allow grouping of proposals that were thematically similar. Proposal 618-Full3 East Asia Margin was reviewed after Proposal 552-Full3 Bengal Fan. Proposal 695-Full2 IBM Pre-Arc Crust was followed by 698-Full2 IBM Arc Middle Crust and 697-Full3 IBM Rear Arc Crust. Proposal 669-Full3 Walvis Ridge Hotspot was reviewed after 636-Full3 Louisville Seamounts. Proposal 661-Full2 Newfoundland Sediment Drifts followed 567-Full4 South Pacific Paleogene. Proposal 581-Full2 Late Pleistocene Coralgal Banks was inserted before 716-Full2 Hawaiian Drowned Reefs.

14. Presentation and discussion of proposals

The committee reviewed the twenty-eight full proposals shown in the table below, organized by agendum 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. Saito remained out of the room for the entire proceedings as a conflicted proponent.

Proposal	Short title	Watchdogs	Conflicts
14.1. Deep Biosphere and Subseafloor Ocean (7 proposals)			
553-Full2	Cascadia Margin Hydrates	Ruppel/Li/Lee	none
555-Full3	Cretan Margin	Behrmann/Yamamoto/Filippelli	none
584-Full2	TAG II Hydrothermal	Becker/Tokunaga/Blackman	none
589-Full3	Gulf of Mexico Overpressure	Tokunaga/Ruppel/Fujiwara	none
633-Full2	Costa Rica Mud Mounds	Yamamoto/Okada/Ruppel	none
637-Full2	New England Hydrogeology	Tokunaga/Filippelli/Hollis	none
662-Full3	South Pacific Gyre Microbiology	Yamamoto/Becker/Li	none
14.2. Environmental Change, Processes, and Effects (10 proposals)			
549-Full6	Northern Arabian Sea Monsoon	Filippelli/Lee/Peterson	none
552-Full3	Bengal Fan	Feary/Jenkyns/Lee	none
556-Full4	Malvinas Confluence	Lee/Peterson/Camoin	none

567-Full4	South Pacific Paleogene	Li/Jenkyns/Okada	none
581-Full2	Late Pleistocene Coralgal Banks	Camoin/Feary/Yamamoto	none
618-Full3	East Asia Margin	Filippelli/Camoin/Peterson	none
661-Full2	Newfoundland Sediment Drifts	Jenkyns/Okada/Li	none
686-Full	Southern Alaska Margin I	Peterson/Filippelli/Tokunaga	none
705-Full2	Santa Barbara Basin Climate Change	Peterson/Camoin/Hollis	none
716-Full2	Hawaiian Drowned Reefs	Camoin/Li/Jenkyns	none

14.3. Solid Earth Cycles and Geodynamics (11 proposals)

522-Full5	Superfast Spreading Crust	Früh-Green/Blackman/Okada	none
535-Full6	Atlantis Bank Deep	Früh-Green/Ishii/Blackman	none
537A-Full5	Costa Rica Seismogenesis Phase A	van der Pluijm/Behrmann/ Fujiwara	Saito
612-Full3	Geodynamo	Okada/Feary/van der Pluijm	none
636-Full3	Louisville Seamounts	Blackman/van der Pluijm/Fujiwara	none
659-Full	Newfoundland Rifted Margin	Ruppel/Yamamoto/Ishii	none
669-Full3	Walvis Ridge Hotspot	Takazawa/Ishii/ Früh-Green	none
695-Full2	Izu-Bonin-Mariana Pre-Arc Crust	Ishii/Takazawa/Feary	none
697-Full3	Izu-Bonin-Mariana Rear-Arc Crust	Behrmann/van der Pluijm/Takazawa	none
698-Full2	Izu-Bonin-Mariana Arc Middle Crust	Takazawa/Behrmann/Blackman	none
703-Full	Costa Rica SEISCork	van der Pluijm/Becker/ Behrmann	Saito

Wednesday **18 March 2009** **08:00-17:30**

15. Clarify status of proposals remaining at OTF

Mori and Janecek summarized the status of proposals remaining with the OTF. All twenty-three proposals listed under agenda items 15.1 and 15.2 are considered to be residing with the OTF.

15.1. Scheduled or recommended for FY09-10

The following proposals are either scheduled or recommended for scheduling as of March 2009:

	Proposal	Short Title
1	477-Full4	Okhotsk/Bering Plio-Pleistocene (Bering)
2	482-Full3	Wilkes Land Margin
3	519-Full2	South Pacific Sea Level (Great Barrier Reef)
4	545-Full3	Juan de Fuca Flank Hydrogeology
5	564-Full2	New Jersey Shallow Shelf
6	600-Full	Canterbury Basin
7	603A-Full2	NanTroSEIZE Phase 1: Reference Sites
8	603B-Full2	NanTroSEIZE Phase 2: Mega-splay Faults
9	603C-Full	NanTroSEIZE Phase 3: Plate Interface
10	603D-Full2	NanTroSEIZE Observatories
11	626-Full2	Pacific Equatorial Age Transect
12	638-APL2	Adelie Drift

- 13 654-Full2 Shatsky Rise Origin
 14 739-APL Bering Sea Subseafloor Life

15.2. 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
15	477-Full4	Okhotsk/Bering Plio-Pleistocene (Okhotsk)
16	505-Full5	Mariana Convergent Margin
17	537B-Full4	Costa Rica Seismogenesis Phase B
18	595-Full3	Indus Fan and Murray Ridge
19	601-Full3	Okinawa Trough Deep Biosphere
20	605-Full2	Asian Monsoon
21	677-Full	Mid-Atlantic Ridge Microbiology
22	693-APL	S. Chamorro Seamount CORK
23	724-Full	Gulf of Aden Faunal Evolution

16. Global ranking of proposals I

16.1. Select proposal pool to rank

Mori suggested that proposals 555-Full3 Cretan Margin, 633-Full2 Costa Rica Mound Mounds and 537A-Full5 CRISP-A should be evaluated assuming the observatory components are retained. Mori asked if the committee agreed to rank all twenty-eight proposals evaluated at this meeting. There were no objections.

SPC Consensus 0903-08: The SPC will include in the ranking pool all twenty-eight proposals reviewed at this meeting.

17. Presentation and discussion of APLs

Tom Janecek asked for clarification on the status of Proposal 728-APL2 Gulf of Papua Coralgal Barrier Reef. Mori replied that in SPC Motion 0808-03 this proposal was sent to the OTF contingent upon certain conditions which were not met; hence this proposal continues to reside with the SPC.

The committee reviewed two ancillary project letters (APLs): 734-APL Cascadia Accretionary Prism CORK (watchdogs: Ruppel/Tokunaga/Li) and 738-APL Nankai Trough Submarine Landslides (watchdogs: Okada/Takazawa/Jenkyns). Keir Becker was conflicted and left the room for this agendum. During his absence Brad Clement acted as his alternate. By consensus, the committee decided to send Proposal 734-APL to the OTF for possible implementation. During discussion of 738-APL, the committee agreed that the proponents should reinsert wireline logging into the operational plan. By consensus, the committee also sent Proposal 738-APL to the OTF with the additional comment regarding logging.

SPC Consensus 0903-09: The SPC forwards Proposal 734-APL Cascadia Accretionary Prism CORK to the Operations Task Force (OTF).

SPC Consensus 0903-10: The SPC forwards Proposal 738-APL Nankai Trough Submarine Landslides to the Operations Task Force (OTF) and recommends that the proponents reinstate the wireline logging plan.

18. Global ranking of proposals II

Jim Mori reminded the committee of the two-step process for ranking proposals: (1) ranking mainly on science and relevance to the ISP; followed by (2) discussion on sending proposals

to the OTF with a Tier 1 or Tier 2 designation. Mori presented his definitions of Tier 1 and 2. Tier 1 proposals are: the highest priority proposal for an ocean region; important to complete by 2013; and ready for drilling. Tier 2 proposals are: high priority proposals for an ocean region; and ready for drilling. The former will reside with the OTF until 2013; the latter reside with the OTF for two years. Mori suggested that proposals with insufficient site survey data should not be sent to the OTF. Janecek agreed, saying only proposals that are “ready to go” should be forwarded to the OTF. Becker asked about the previously employed “holding bin” for proposals nominally forwarded to the OTF, but with insufficient data for adequate site characterization. Mori said he thought that mechanism did not work and had led to confusion.

Mori said that both the SSEP and SASEC have encouraged the SPC to reduce the number of proposals residing with the SPC. He suggested that the SPC should consider deactivating some proposals. He added that he did not want to burden IODP renewal with lots of carry over proposals, hence the need to eliminate some.

van der Pluijm asked if it was proposal pressure that drives the NSF. Allan said that proposal pressure does not drive the NSF; rather, it is the science that is accomplished. He noted that a new (post-2013) program may have a new proposal system, thus existing proposals may not map one to one into the new program, but may need repackaging. Becker wondered if there was perhaps a more gentle alternative to deactivation, such as informing proponents that their proposal is not likely to be implemented in this phase, or recommending to some proponents that they start over with a new proposal.

Thursday	19 March 2009	08:00-17:30
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18.1. Balloting by SPC members

Overnight, each of the seventeen SPC members and alternates present and eligible to vote assigned the numerical rankings of one through twenty-eight to the twenty-eight proposals in the global ranking pool. On Thursday morning, each of the members submitted their rankings on signed ballots to the IODP-MI science coordinators. Behrmann, Hollis, Lee and Li were the non-voting members present.

18.2 Tabulation of results

Zelt and Kawamura collected the ballots and tabulated the following results for the twenty-eight proposals ranked by the committee. Note that proposals 589-Full3 Gulf of Mexico Overpressures and 698-Full2 IBM Arc Middle Crust had identical means (tied for 21st place). During the presentation of results, Mori ruled that Ildefonse was conflicted for the subsequent discussion of results and selection of proposals to forward to the OTF. Ildefonse asked for an explanation of the ruling. Mori replied that Ildefonse had a vested interest in seeing certain proposals ranked highly. Ildefonse left the room for agenda items 18.2 and 18.3.

Rank	Proposal #	Short Title	Mean	St. Dev.	Tier
1	636-Full3	Louisville Seamounts	5.53	4.23	1 Pac.
2	662-Full3	South Pacific Gyre Microbiology	5.65	4.24	1 Pac.
3	705-Full2	Santa Barbara Basin Climate Change	6.94	5.23	2*
4	637-Full2	New England Shelf Hydrogeology	7.24	6.34	NA*
5	552-Full3	Bengal Fan	8.53	6.28	1 Ind.*
6	716-Full2	Hawaiian Drowned Reefs	9.76	8.54	2*
7	549-Full6	Northern Arabian Sea Monsoon	10.71	3.87	2*
8	522-Full5	Superfast Spreading Crust	10.82	6.42	2

9	537A-Full5	Costa Rica Seismogenesis Project Phase A	12.12	6.72	2
10	618-Full3	East Asia Margin	13.53	6.49	2*
11	695-Full2	Izu-Bonin-Mariana Pre-Arc Crust	13.76	8.95	NF
12	686-Full	So. Alaska Margin 1: Climate-Tectonics	14.18	6.18	NF
13	659-Full	Newfoundland Rifted Margin	14.41	6.72	NF
14	661-Full2	Newfoundland Sediment Drifts	14.47	6.10	NF
15	553-Full2	Cascadia Margin Hydrates	14.65	5.70	NF
16	555-Full3	Cretan Margin	15.06	6.96	NF
17	633-Full2	Costa Rica Mud Mounds	16.12	6.27	NF
18	697-Full3	Izu-Bonin-Mariana Rear-Arc Crust	16.53	8.89	NF
19	567-Full4	South Pacific Paleogene	16.94	7.69	NF
20	581-Full2	Late Pleistocene Coralgall Banks	17.53	7.17	NF
T21	589-Full3	Gulf of Mexico Overpressures	18.94	5.88	NF
T21	698-Full2	Izu-Bonin-Mariana Arc Middle Crust	18.94	10.46	NF
23	703-Full	Costa Rica SeisCORK	19.18	4.73	NF
24	669-Full3	Walvis Ridge Hotspot	19.47	5.33	NF
25	535-Full6	Atlantis Bank Deep	20.47	7.98	NF†
26	584-Full2	TAG II Hydrothermal	20.94	6.57	NF†
27	556-Full4	Malvinas Confluence	21.41	4.14	NF
28	612-Full3	Geodynamo	22.18	7.59	NF†

NA = not applicable (MSP proposal)

NF = not forwarded to the OTF

* = placed in “holding bin” due to site survey deficiencies (see SPC Consensus 0903-13)

† = deactivated

18.3. Select ranked proposals to forward to the OTF

Jim Mori explained that each proposal forwarded to the OTF should be designated as either Tier 1 or Tier 2. He noted that at its previous (March 2008) ranking meeting, the SPC for the first time forwarded proposals to the OTF not strictly in accordance with the rankings. He said that this was now an acceptable practice; the selection of proposals to forward should factor in issues such as ISP thematic balance, societal relevance, and the science the program needs to accomplish before the end of the current phase in 2013. Mori suggested drawing a line, above which all proposals would be forwarded to the OTF, and then considering which proposals below the line to also send forward.

Janecek stated that he encouraged use of the holding bin concept for proposals with insufficient site survey data. He suggested that without this mechanism, proponents had no incentive to get the data submitted, and are given a false impression that their proposal is ready to go. Mori explained the holding bin concept: proposals nominally forwarded to the OTF would be put in a “holding bin” until sufficient site survey data (as evaluated by the SSP and/or the EPSP) were acquired. Ruppel suggested first assigning tiers to proposals, then discussing which proposals would go in the holding bin. Mori agreed.

The committee deliberated over which proposals to forward to the OTF. Becker noted that in past years there was typically a clear statistical break in the ranking means. This year, he said, there appeared to be no such break. Filippelli thought that the top grouping reflected a good overall proposal balance. Mori suggested forwarding the top eleven proposals. Ruppel suggested the top ten because it gives a nice mixture of platforms and themes. Becker supported this; he thought the top ten fit well in terms of what should be accomplished by 2013, including proposals that cover microbiology, climate change, Asian monsoon, sea level, and crustal drilling. Filippelli agreed.

Blackman said that including #11 (Proposal 695-Full2 IBM Pre-Arc Crust) would extend the depth to which the oceanic crust is addressed in the first phase of the IODP. Larsen added that the program has done nothing to address evolution of the ocean crust/subduction factory. He agreed that the committee needed to look in terms of what the program should complete by 2013, adding that not forwarding Proposal 695-Full2 would mean that this theme would probably not be addressed by 2013. Larsen added that there were not many Atlantic proposals in the top ten, hence little pressure to move the *JOIDES Resolution* to the Atlantic. Ruppel asked which Atlantic proposals were currently at the OTF. Janecek replied that Proposals 644-Full2 Mediterranean Outflow and 677-Full Mid-Atlantic Ridge Microbiology were both Tier 1 Atlantic proposals. Larsen referred to the latter as a “golden spike”. He added that, although currently unknown, there may be industry work that could take the *JOIDES Resolution* to the Atlantic.

Tokunaga stated that there were not enough proposals in the top ten addressing the deep biosphere and subseafloor ocean theme of the ISP. He suggested including Proposals #16 555-Full3 Cretan Margin and #17 633-Full2 Costa Rica Mud Mounds. Hollis agreed that the low number of proposals in the top ten addressing this theme was a concern. He thought there may be some proposals outside the top ten that were more achievable, such as Proposal 553-Full2 Cascadia Margin Hydrates. He said Proposal 637-Full2 New England Shelf Hydrogeology may take some time to implement. Filippelli disagreed, saying the latter would have a site survey cruise this summer, hence it could be implemented before 2013. Evans commented that financially, given the current guidance, there is no possibility it could be implemented in this phase of the program. Asked by Janecek if this would be true even if three years of funds were cobbled together, Evans said yes. Evans mentioned that part of Proposal 637-Full2 could possibly be done by the *JOIDES Resolution*. Ruppel said that, as written, this was not correct. Evans agreed, but said that the site survey has not been completed, so it is still unknown where the sites will be located.

Hollis reiterated concern that only two proposals in the top ten addressed the deep biosphere and subseafloor ocean theme of the ISP. He said this was a new area in the IODP which needs promoting and encouraging. Mori noted that there are already a few proposals at the OTF addressing this theme (545-Full3 Juan de Fuca Flank Hydrogeology, 601-Full3 Okinawa Trough Deep Biosphere, and 677-Full Mid-Atlantic Ridge Microbiology).

Tokunaga asked if ocean balance should be considered. He said there are no Atlantic proposals in the top ten. Larsen commented that it was not a big concern this year, but may become so. He wondered if the USIO had any industry options for work in the Atlantic. Malone said that DeepStar could happen in 2011. Mori asked the committee if it wanted to include any Atlantic proposals in the group forwarded to the OTF. Ruppel mentioned that there are currently some Tier 1 Atlantic proposals at the OTF.

Tokunaga asked if platform balance should be considered. He noted one mission-specific platform (MSP) and one riser proposal in the top ten. He suggested that it may be useful to have one more contingency riser option. van der Pluijm noted that there are currently two riser proposals residing with the OTF (537B-Full4 CRISP-B and 595-Full3 Indus Fan). Mori said that the question about riser proposals is important, but will be returned to in agenda item 19.

Tokunaga recommended forwarding #15 Proposal 553-Full2 Cascadia Margin Hydrates to the OTF because of its tie in with a cabled network. Früh-Green and Blackman agreed. Blackman thought the ability to analyze data in real time was important. Ruppel stated that the same argument was made last year. van der Pluijm questioned whether a proposal should go forward just because it is a target of opportunity. He preferred to base decisions primarily

on science, but said he was not against forwarding Proposal 553-Full2. Becker suggested, based on standard deviations, instead of forwarding the top ten plus number fifteen, forward the top fifteen. van der Pluijm disagreed, saying that the most of the means overlapped. Behrmann suggested that forwarding the top seventeen would provide a good balance of topics. Allan stated that statistically there was no difference between the top twenty ranked proposals. Früh-Green said that Proposal 553-Full2 would bring a new level of CORK activity to the program. Ruppel said that, in its present form, it could not be implemented because the strategy is not mature. Though she agreed there has been a shortage of observatory work in the program, she felt uncomfortable including this proposal with the top ten forwarded to the OTF.

Takazawa said that to provide thematic balance, #11 Proposal 695-Full2 IBM Pre-Arc Crust should be forwarded to the OTF because it is the only one to address the subduction factory. Larsen noted that the subduction factory is not an initiative in the ISP, though it is mentioned and highlighted as an important topic. He noted that with the limited drilling time available before 2013 not everything can be accomplished. He added that Proposal 505-Full5 Mariana Convergent Margin, residing with the OTF as a Tier 1 proposal, addressed the same topic. Feary thought that Proposal 695-Full2 could be improved. van der Pluijm commented that Proposal 686-Full Southern Alaska Margin 1: Climate-Tectonics also addressed the same topic and has other benefits such as addressing climate issues. Mori said he did not sense strong support to include Proposal 695-Full2 with the top ten.

Okada said he would like to see more than the top ten forwarded to the OTF. Filippelli said he understood that sending more proposals would give more flexibility to the OTF, but he thought there are already a lot of excellent proposals residing with the OTF. He felt that ten was about the right number. Camoin agreed. Conversely, Behrmann said he was unhappy with drawing the line at ten; he felt this was very arbitrary. He quipped that this could put the program in danger of becoming the “Integrated *Pacific* Drilling Program.” Behrmann expressed concern about the lack of Atlantic proposals in the top ten, adding that Europeans would be very interested to see the *JOIDES Resolution* in the Atlantic. He reminded the committee that its decisions should not always be based on science alone. He suggested drawing the line at sixteen or seventeen. Blackman said she understood this argument but suggested adding an Atlantic proposal from below to the top ten instead of drawing the line at sixteen or seventeen. Feary felt that the top ten proposals are very mature scientifically, while those below could be strengthened. He suggested that once a proposal is forwarded to the OTF the motivation to improve the science vanishes. He favored forwarding a smaller number, such as ten. van der Pluijm suggested considering including Proposal 659-Full Newfoundland Rifted Margin. Larsen said he thought this was a doable project; he wondered if the USIO agreed.

Ruppel expressed concern about “mortgaging the future to some extent” by pushing some Atlantic proposals forward. She said it was important to think strategically about the best science portfolio. She added that the program will not get around to drilling the top ten proposals plus those currently residing with the OTF. Ruppel said she preferred to go with the top ranked science. Jenkyns agreed. He said he was unhappy about “leapfrogging” lower ranked proposals ahead of higher ranked proposals. Behrmann clarified that he was only advocating moving the cut-off line. Mori said he sensed there was general agreement to forward the top ten ranked proposals to the OTF. He asked if there were any objections. Behrmann said he was “profoundly unhappy”, but would side with the majority.

SPC Consensus 0903-11: The SPC forwards the top ten of twenty-eight ranked proposals to the Operations Task Force (OTF) for potential future scheduling, with necessary consideration of site survey data, as stated in SPC Consensus 0903-13.

The committee discussed tier assignment for the top ten proposals. Mori and Janecek noted that current Tier 1 proposals for the Pacific are: 505-Full5 Mariana Convergent Margin, 537B-Full4 CRISP-B, 545-Full3 Juan de Fuca Flank Hydrogeology, and 601-Full3 Okinawa Trough Deep Biosphere. Current Tier 1 proposals for the Atlantic are: 644-Full2 Mediterranean Outflow and 677-Full Mid-Atlantic Ridge Microbiology. The current Tier 1 proposal for the Indian Ocean is 724-Full Gulf of Aden Faunal Evolution.

Discussions of tier assignment led to the results shown in the table under agenda 8.2. Tier 1 was assigned to three proposals: #1 636-Full3 Louisville Seamounts (Pacific), #2 662-Full3 South Pacific Gyre Microbiology (Pacific), and #5 552-Full3 Bengal Fan (Indian). Proposal #4 637-Full2 (New England Shelf Hydrogeology) was not assigned a tier because it is a MSP proposal. The remaining top ten proposals were designated Tier 2. Proposal #6 716-Full2 (Hawaiian Drowned Reefs), potentially a MSP proposal, was designated Tier 2. Mével stated that MSPs are for drilling in shallow water and ice-covered water, and therefore cannot be used for Proposal 716-Full2 (water depths at proposed sites are all greater than 100m). Camoin agreed that the drilling could be done with the *JOIDES Resolution* but the core recovery would be better with a MSP. Filippelli suggested assigning a tier and letting the OTF deal with the details.

SPC Consensus 0903-12: The SPC designates Proposals 636-Full3 Louisville Seamounts and 662-Full3 South Pacific Gyre Microbiology as Tier 1 for the Pacific Ocean, Proposal 552-Full3 Bengal Fan as Tier 1 for the Indian Ocean, and Proposals 705-Full2 Santa Barbara Basin Climate Change, 716-Full2 Hawaiian Drowned Reefs, 549-Full6 Northern Arabian Sea Monsoon, 522-Full5 Superfast Spreading Crust, 537A-Full5 Costa Rica Seismogenesis Project Phase A, and 618-Full3 East Asia Margin as Tier 2 proposals. The SPC does not assign a tier to the mission specific platform (MSP) proposal 637-Full2 New England Shelf Hydrogeology.

During discussions of tier assignments Becker commented that the definition of tiers is somehow inadequate. He felt certain proposals were Tier 1, but noted that there was not supposed to be very many Tier 1 proposals per ocean. van der Pluijm said he disliked that Tier 1 proposals remain with the OTF until 2013 and cannot be pulled back for re-ranking. Schuffert asked for confirmation that Tier 2 proposals will reside with the OTF for two years. Mori confirmed. Schuffert noted that Tier 2 proposals from the previous ranking meeting (March 2008) stayed with the OTF for only one year. He wondered if it was just “too darned bad” for the proponents of proposals that were designated Tier 2 last year, did not rank in the top ten this year, and thus stayed for only one year at the OTF. Mori replied that the SPC has always said that proposals can be pulled back from the OTF.

The committee discussed which of the proposals nominally forwarded to the OTF to place in the “holding bin”, i.e., hold back from OTF because of deficiencies in site survey data. Zelt asked if a proposal coming out of the holding bin would be re-reviewed by the SPC. Becker suggested that the SSP would review the site survey data, and the SSP chair would consult with the SPC chair; generally a proposal would not have to come back to the SPC for review unless new data significantly affected the science. Früh-Green asked about the criteria for placing a proposal in the holding bin; i.e., was it just site survey deficiency. Mori explained that a proposal with site survey deficiency from either the SSP or EPSP perspective would be placed in the holding bin. The committee designated six proposals for the holding bin: 549-

Full6 Northern Arabian Sea Monsoon, 552-Full3 Bengal Fan, 618-Full3 East Asia Margin, 637-Full2 New England Shelf Hydrogeology, 705-Full2 Santa Barbara Basin Climate Change, and 716-Full2 Hawaiian Drowned Reefs. All were placed in the holding bin for EPSP deficiency, and the latter three were also flagged for SSP deficiency.

Feary presented a draft statement defining the holding bin, describing the process for escaping the holding bin, and specifying the status of the six proposals placed in the holding bin. With some later editing, this statement was accepted by consensus.

SPC Consensus 0903-13: The “holding bin” exists for proposals that are designated to be forwarded to the Operations Task Force (OTF), but for which there are insufficient data for the Site Survey Panel (SSP) and/or the Environmental Protection and Safety Panel (EPSP) to confirm readiness for drilling. After the SSP and EPSP have confirmed readiness for drilling, the SPC chair is delegated to remove the proposal from the holding bin and either forward the proposal to the OTF or retain it at the SPC.

Following the March 2009 SPC ranking meeting, the following proposals reside in the holding bin:

	EPSP	SSP
549-Full6 Northern Arabian Sea Monsoon	x	ok
552-Full3 Bengal Fan	x	ok
618-Full3 East Asian Margin	x	ok
637-Full2 New England Shelf Hydrogeology	x	x
705-Full2 Santa Barbara Basin Climate Change	x	x
716-Full2 Hawaiian Drowned Reefs	x	x

Mori asked the committee to consider if there were proposals that should be deactivated because they ranked low this time and the last two times. He said if there was only a very small chance of the proposal being implemented before 2013 it made sense to explain this to the proponents and deactivate the proposal rather than ask the proponents for further revisions. The committee decided by consensus to deactivate three proposals: 535-Full6 Atlantis Bank Deep, 584-Full2 TAG II Hydrothermal, and 612-Full3 Geodynamo.

SPC Consensus 0903-14: The SPC deactivates Proposals 535-Full6 Atlantis Bank Deep, 584-Full2 TAG II Hydrothermal and 612-Full3 Geodynamo because they have ranked low in the last several evaluations and realistically have little chance of being implemented within the current phase of the IODP which ends in 2013.

Ruppel presented a draft statement explaining the committee’s criteria for considering deactivation of a proposal. This was accepted by consensus.

SPC Consensus 0903-15: The SPC may deactivate proposals after three rankings.

18.4. Nominate co-chief scientists for forwarded proposals

Jim Mori said this item would be deferred until the IOs specifically request nominations.

19. Discussion and prioritization of alternate riser proposals

Jim Mori said the SPC needs to give instructions to CDEX on how to proceed with scoping activities for alternate riser proposals in case NanTroSEIZE proves unfeasible, for example, due to the Kuroshio current. He said that Proposal 595-Full3 Indus Fan was not practical to implement, leaving three alternatives: Proposals 537B-Full4 Costa Rica Seismogenesis Project Phase B (CRISP-B; Tier 1 from last year), 618-Full3 East Asia Margin (ranked #10 this year), and 698-Full2 Izu-Bonin-Mariana (IBM) Arc Middle Crust (ranked tied for #21 this year). He asked the committee if CDEX should be requested to proceed with scoping of one or two of these proposals, and which one or two were preferred. Mori noted that from a

science ranking perspective, the top two choices would be Proposals 537B-Full4 and 618-Full3.

Ruppel said that, for flexibility, it made sense to ask CDEX to scope two proposals. Filippelli wondered if it was a question of flexibility or expense. Mori stated that CDEX has said the costs to implement CRISP-B are prohibitive. Larsen wondered if CRISP-B constituted a true contingency option. He asked if it was not necessary to first complete CRISP-A (Proposal 537A-Full5 Costa Rica Seismogenesis Project Phase A) before starting on CRISP-B. Camoin said that the drilling planned for CRISP-B is to deepen holes drilled for CRISP-A, so CRISP-A would need to be completed first. Becker agreed, saying it was the same for any riser project: non-riser drilling would have to be done first to set up for riser drilling. Kuramoto added that it was always necessary to do riserless drilling first in order to install twenty inch casing. Becker asked if time between riserless and riser drilling was needed to do well design. Kuramoto replied that probably a couple of months were required.

Blackman asked about the variability of the Kuroshio current and the time window for doing NanTroSEIZE riser drilling. Janecek said the current had about a three month scale of variability. He stated that JAMSTEC director Taira has said for this year simulations suggest it will be possible to operate, so operations will proceed this year. The next program would be about eighteen months from now. Blackman wondered if there could be a scenario where there was uncertainty for the first three months, but still worthwhile to wait for a change. Janecek replied that he could not answer that. Blackman said that kind of information would be useful to help decide whether CRISP-B should be a contingency option. Janecek pointed out that preparation time was required to start riser drilling. He said that to set up a base and make sure all necessary supplies are in place can take more than a year.

Filippelli said he was agreeable to having CDEX continue looking into Proposals 537B-Full4 and 618-Full3. He wanted to see the latter explored from a clearance standpoint, and suggested it was not necessary to prioritize the two. Mori recommended that CDEX continue scoping of 537B-Full4 and begin scoping of 618-Full3, the latter to prepare as a contingency option for NanTroSEIZE drilling. Blackman suggested that, with budget issues, more effort should be put into Proposal 618-Full3, though she thought that scientifically each should be given equal weighting. Filippelli thought it was difficult to compare the two because Proposal 537B-Full4 was Tier 1 last year, while Proposal 618-Full3 is Tier 2 from this meeting.

Tokunaga mentioned that in earlier discussion it was suggested that it is necessary to complete CRISP-A prior to CRISP-B. If CRISP-B is to be a possible contingency option, he wondered if that would affect the priority of CRISP-A. Janecek commented that the OTF had opted not to take the *JOIDES Resolution* to drill CRISP-A since there would only have been about twenty operational days. He mentioned that he had asked the CRISP proponents to comment on the minimal drilling plan that would be necessary to help site and locate CRISP-B sites. The proponents said about thirty days. Larsen said he thought a 3-D seismic survey was required for CRISP-B. He wondered how it could be a realistic contingency option. He stressed that the need for a contingency plan was urgent because it may have to be implemented by 2011. Larsen said a final decision is needed by the August 2009 SPC meeting. He stated that if it is not ready, it is not an alternate.

Ruppel suggested that it is understood that CRISP is a high priority, comparative project for NanTroSEIZE. She wanted to know if CDEX was interested in implementing CRISP. She said she knows that Japanese scientists worked very hard to get *Chikyu*, and understands that the basis for selling the ship to the government was riser drilling at NanTroSEIZE. She added that she was willing to give Proposal 618-Full3 to CDEX as an alternate for NanTroSEIZE. Mori asked if she was suggesting only scoping Proposal 618-Full3. Ruppel replied that if

scoping includes the expense of going through site surveys, then pragmatically only Proposal 618-Full3 should be considered as a contingency. Larsen pointed out that scoping an alternate for NanTroSEIZE does not stop the scoping of CRISP – that is long term scoping that will go on regardless.

Blackman suggested asking the NanTroSEIZE science group for its preference for a contingency project. Tokunaga asked for clarification. Blackman explained that the IODP has embraced NanTroSEIZE and considers elements of that project to be one of its top priorities; therefore, why not ask the NanTroSEIZE scientists what they think would be the best alternative to NanTroSEIZE for moving forward in seismogenic zone studies. Feary said that the SPC is the body charged with making that decision. Mori and Filippelli agreed.

Eguchi suggested that, from a CDEX standpoint, it would be better to have more than one viable alternative. He asked if Proposal 698-Full2 IBM Arc Middle Crust could be included as a contingency option. Behrmann said that there already are two options: Proposals 537B-Full4 and 618-Full3. Larsen suggested that CDEX should not be asked to scope more than one contingency option. Janecek said he did not consider CRISP-B to be a valid short-term contingency. Initiation of drilling at CRISP would require a commitment to do as much as possible to try and complete the project. He said he was hesitant to accept CRISP-B as a valid contingency. Mori agreed that having two unfinished riser projects at the end of the current phase of the program in 2013 would be very bad. He agreed that it was not practical to ask for CRISP-B to be scoped as an alternate for NanTroSEIZE. Tokunaga said he preferred Proposal 618-Full3 as a contingency option; he felt CRISP-B was not viable as a contingency.

Kuramoto asked about the timeframe for scoping. Larsen said that the SPC would charge IODP-MI to arrange for scoping; IODP-MI will set the deadline. Kuramoto asked what will happen if other high priority riser projects appear at next year's ranking meeting. Mori replied that he preferred to leave that open, stressing that the program needed to have a viable contingency option in hand by 2011. Janecek added that waiting until next March to designate another riser proposal would be too late; the decision had to be made now. Mori suggested the decision could wait until August 2009, but agreed that scoping must start soon to have something ready to go in 2011.

Okada said that having only one candidate contingency option was dangerous. He suggested that the only realistic options were Proposals 618-Full3 and 698-Full2. Filippelli stated that Proposal 618-Full3 is a viable contingency that is quite practical given its proximity and ranking. He added that the rankings should be considered in making this decision, and Proposal 698-Full2 ranked low (tied for #21 of 28). Mori agreed, saying that, based on the evaluation of this proposal at this meeting, he would not support including Proposal 698-Full2 as a contingency.

Filippelli moved to begin scoping of Proposal 618-Full3 as a contingency for NanTroSEIZE. Becker seconded. Tokunaga, seeking clarification, asked if this meant scoping Proposal 618-Full3 as the only contingency option. Mori replied no; but only Proposal 618-Full3 was currently under discussion.

<p>SPC Motion 0903-16: The SPC asks IODP-MI to begin scoping of Proposal 618-Full3 East Asia Margin as a contingency for NanTroSEIZE.</p>
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Filippelli moved, Becker seconded, 14 in favor (Becker, Blackman, Camoin, Clement, Feary, Filippelli, Früh-Green, Jenkyns, Mori, Peterson, Ruppel, Takazawa, Tokunaga, Yamamoto), 3 opposed (Fujiwara, Ishii, Okada), 3 non-voting (Behrmann, Lee, Li) , 1 absent (Hollis – non-voting).

Okada moved to begin scoping of Proposal 698-Full2 as a contingency for NanTroSEIZE. Takazawa seconded. Kuramoto explained that the problem with Proposal 618-Full3 is that two sites are in disputed waters. He said this was a difficult situation for CDEX. Li said, regarding sites in the South China Sea, there is no problem going to the site near Taiwan. He said the other site is off Vietnam, in water under Chinese control. Li said that the lead proponent of Proposal 618-Full3 got data from China and there was no problem taking the ship there. He added that the ODP drilled in the disputed waters. Li said that the co-chief received permission from the Chinese government, which sent one or two navy ships to protect the *JOIDES Resolution*. He suggested there would be no problem in drilling there. Kuramoto said he did not want to discuss political issues. He noted that *Chikyu* is a Japanese flagged ship so the situation was different.

Filippelli suggested that Proposal 698-Full2 ranked too low to be considered for scoping at the same level as proposals that were forwarded to the OTF. Okada said that he wanted an alternate to Proposal 618-Full3 as a contingency option. Früh-Green expressed concern that asking for scoping of Proposal 698-Full2 superceded the rankings and the criteria used to send proposals to the OTF. Okada asked to withdraw the motion. With no objections raised, the motion was withdrawn.

Mori asked how long it would take CDEX to determine the viability of Proposal 618-Full3. Kuramoto said that the permitting issues should be sorted out by the time of the June 2009 OTF meeting. Larsen said he believed CDEX was already scoping Proposal 698-Full2, therefore there was less urgency for the SPC to request scoping. He said it was more urgent for Proposal 618-Full3 because CDEX is currently not doing any scoping of that proposal. Ruppel suggested that before recommending any action on Proposal 698-Full2, the situation with Proposal 618-Full3 should be clarified at the August 2009 SPC meeting. Mori said that Proposal 698-Full2 would only be considered in August if CDEX says that Proposal 618-Full3 cannot go forward. Kuramoto said that CDEX will start scoping Proposal 618-Full3 with IODP-MI and will report the results in August 2009.

20. SPC input to INVEST and subsequent science planning

Jim Mori said that Larsen has been doing a lot of work planning for the INVEST meeting; questions should be directed to him. He noted that the EDP and SSEP will be writing white papers. He suggested that if any SPC members want to write a white paper, it could be arranged over e-mail; otherwise, there was no plan for the SPC to contribute to the INVEST meeting.

21. Other program reports

21.1. International Continental Scientific Drilling Program (ICDP) report

Jan Behrmann gave a status report on ICDP activities. He reviewed the ICDP projects and research themes and summarized activities as of February 2009, noting that 218 proposals have been submitted (10% of which have been drilled), and forty-seven workshops have been held. He added that any full drilling proposal is preceded by a workshop. Behrmann summarized the funding for current drilling projects, noting that most funding (~80%, but with some exceptions) comes from national sources; the rest is ICDP funding. He reviewed ICDP membership, which includes fifteen member countries and two member organizations. He described the ICDP membership principle as “the more you pay, the more you save.” Behrmann described the ICDP organizational structure, which he said was similar to that of the IODP. He said the ICDP Science Advisory Group (SAG) was similar to the IODP SAS, but much smaller, comprising just one group of people that look at the projects. Behrmann illustrated how a drilling proposal moves through the ICDP system to become an approved ICDP project. He said that workshops are an essential element in the development of full

proposals, allowing the principle investigators to: (1) invite leading experts in the respective field from all over the world; (2) deepen and broaden the project; (3) form an international science team; and (4) prepare a detailed science, operations, and budget plan for a full proposal. Behrmann proceeded to describe active and planned ICDP projects. He noted that upcoming IODP Expedition 313 (New Jersey Shallow Shelf) was in fact a joint IODP-ICDP project. Other projects he mentioned were: (1) workshop on “Acquiring high to ultra-high resolution geological records of past climate change by scientific drilling” (September–October 2008) jointly organized with IODP; (2) ICDP workshop on scientific drilling for human origins (November 2008); (3) Potrok Aike Maar Lake Sediment Archive Drilling Project (PASADO; drilling operations September–October 2008); (4) Lake Elgygytgyn (Russia) Drilling Project; (5) Iceland Deep Drilling Project scheduled for 2009–2011; (6) San Andreas Fault Observatory at Depth (SAFOD); (7) Real-time Mud Gas Monitoring project; (8) upcoming workshop on “Active Deformation Processes in a Major Transpressional Fault (Alpine Fault)” (22–28 March 2009); (9) Cretaceous Songliao Basin: Continuous High-resolution Terrestrial Archives and Greenhouse Climate Change project; and (10) Campi Flegrei Caldera Deep Drilling Project (CFDDP). Behrmann concluded by listing some future directions of study for the ICDP, including: (1) continuation of Paleoclimate research in Lakes (Lake Elgygytgyn, Lake Van, possibly Dead Sea, and Lake Ohrid); (2) addressing the evolution of System Earth in Archean Baberton Mountains, Jurassic to Tertiary Songliao Basin, and the Colorado Plateau; (3) geothermal and volcanic risk investigations in Iceland and perhaps Campi Flegrei Caldera; (4) preparing new targets in fault zones and seismic risk; and (5) strengthening cooperation and links with the IODP as now exemplified with the New Jersey expedition, and with online gas analysis.

Mori noted that he would be a member of the ICDP SAG starting this year. Mével added that a joint IODP/ICDP town hall meeting regularly takes place at the EGU meeting. Behrmann suggested that the two programs could work closer together, for example on paleoclimate and tectonics issues. Allan stated that the NSF endorses a more open program for the post-2013 IODP in order to facilitate more cooperation between programs like IODP and ICDP. But, he noted, there are real funding barriers, even within the NSF.

21.2. InterRidge

Benoît Ildefonse provided an overview of the InterRidge (International Cooperation in Ridge-Crest Studies) program. He described InterRidge as a coordination program comprising six principal member countries, four associate member countries, and twenty corresponding member countries, and with ~2500 individual members from a total of sixty-two countries, all studying earth and ocean systems. The mission of InterRidge is: (1) to promote interdisciplinary, international studies of oceanic spreading centers by facilitating the rise of a global research community; (2) to plan and coordinate new science programs that no single nation can achieve alone; and (3) to provide a unified voice for ocean ridge researchers worldwide. Ildefonse described the program’s “next decade” plan (2004–2013), which includes placing a stronger emphasis on the achievement of major, long-term goals through scientific working groups; he listed the seven current working groups. He described the mandate for the Deep Earth Sampling working group, as listed in the InterRidge Science Plan, 2004–2013: *“InterRidge should seek to promote interdisciplinary investigations of the 4-D architecture of the ancient and modern ocean crust and shallow mantle at all scales, and explore the extent and diversity of the sub surface biosphere of the oceanic lithosphere. This would be best achieved by the formation of an InterRidge Working Group with a focus on promoting the development and use of different drilling platforms ranging from over-the-side rock drills to riser drilling, and land-based platforms.”* Ildefonse mentioned that this working group met in December 2008. It: (1) discussed technology and science planning for

very deep drilling; (2) passed a motion which was sent to the SPC chair to re-state the importance of returning to hole 1256D; and (3) organized a pre-INVEST scientific planning workshop. Ildefonse stressed that the InterRidge motion on hole 1256D was not an attempt to lobby the IODP for a specific piece of science; it was a reminder of what the community short-term priority is, as already expressed in the Mission Moho workshop report (available on the IODP web site). Ildefonse said that this priority statement is similar to a statement about large igneous provinces (LIPs) made by the Hotspot Geodynamics DPG. He said he hoped that InterRidge can work efficiently with the IODP for the sake of science.

Larsen asked if the mandate was intended to help initiate drilling proposals, and if so, could any examples be cited. Ildefonse said that the Mission Moho proposal was one example. He said that InterRidge could do more, but is limited in the ways it can implement its ambitious plans. Larsen asked what InterRidge was doing to cultivate a new generation of scientists. Ildefonse explained that InterRidge sponsored summer schools and workshops.

22. Report on workshop: Arctic Ocean History, From Speculation to Reality

Carolyn Ruppel reported on the Arctic Ocean History workshop, which was held in November 2008 and sponsored by the Consortium for Ocean Leadership, ESF, and others. Ninety-five people attended, with about two thirds of the participants from outside the IODP/ODP community. Ruppel noted that the meeting was highly over-subscribed, illustrating the great interest in the topic. She presented a list of ten motivating questions, which covered three areas: tectonics, paleocirculation, and paleoclimate. The primary scientific goal of the workshop was to develop a scientific drilling strategy to investigate the tectonic and paleoceanographic history of the Arctic Ocean and its role in influencing the global climate system. Other goals included summarizing the technical needs, opportunities, and limitations of drilling in the Arctic, and defining the scientific and drilling targets for specific IODP-type campaigns in Arctic Ocean key areas. The latter would be finalized in the development of drilling proposals. The workshop covered several topics, including an ACEX overview, shelf drilling, paleoceanography, tectonics, site survey needs, geohazards, and featured thematic breakouts and geographic breakouts. Ruppel said that for the future of the IODP, the Arctic has the potential for exciting science that can capture the attention of national agencies (important for renewal). Additionally, there is strong industry interest as well as interest from circum-Arctic nations. She mentioned that one of the challenges is the need for substantial site surveys to support drilling. Ruppel said that no single drilling approach can be applied to all Arctic targets; there is a need for different types of drilling, different programs, and hence different funding mechanisms. She suggested that the Arctic scientific community should be encouraged to submit IODP proposals, and she noted there was significant interest from industry in the complementary project proposal (CPP) mechanism. Finally, Ruppel noted that the Arctic is a key scientific arena in which the IODP may be able to engage Russia, and perhaps re-engage Canada.

23. Other business

David Feary presented two draft statements, one addressing the return of the *JOIDES Resolution* to IODP operations, the second requesting that the start of simultaneous operation of all three drilling platforms be adequately promoted. Both statements were accepted by consensus.

SPC Consensus 0903-17: On the occasion of the first core being collected by the considerably improved *JOIDES Resolution* following its extensive refit, the SPC offers its thanks and congratulations to the numerous people who have contributed to this exciting milestone—the volunteers who developed the plans; NSF, Consortium for Ocean Leadership, and the USIO who implemented the plans; the RATs who tested the new systems; and the

present shipboard party who collected this first core. We look forward to this exciting event re-energizing the broader community who can look forward to the innovative science resulting from renewed non-riser drilling in the IODP.

SPC Consensus 0903-18: The SPC eagerly anticipates simultaneous scientific drilling on all three IODP platforms, scheduled to occur in a few weeks. This represents the realization of the full IODP vision, characterized by international cooperation to explore the most important questions of climate change, ocean basin formation, and seafloor life. SPC urges IODP-MI to actively promote this hallmark event in coordination with program member offices, and encourages the Science Advisory Structure Executive Committee (SASEC) to consider how promotion might best be targeted to provide a lucid public vision of existing scientific achievements as well as the important science goals for the second half of this IODP phase.

24. Review of motions and consensus items

Jim Mori thanked absent, departing SPC member Hiroaki Sato for his service on the committee. Mori also thanked meeting host Larry Peterson, as well as Charna Meth of the United States Science Support Program (USSSP) for helping with the logistics.

SPC Consensus 0903-19: The SPC thanks Hiroaki Sato for his service on the SPC. He is recognized for his careful evaluation of proposals and insightful comments, especially in fields related to the petrology of volcanic and ocean crust rocks.

SPC Consensus 0903-20: The SPC thanks Larry Peterson for his efforts in hosting the thirteenth SPC meeting at the University of Miami, and thanks Charna Meth from Ocean Leadership for helping with the logistics. The SPC also thanks Larry and Dan DiResta for leading a most entertaining field trip to Everglades National Park.

25. Future meetings

25.1. Liaisons to other panels and programs

Deferred due to lack of time. Mori said this would be done by e-mail.

25.2. 14th and 15th SPC meetings

25.2.1. August 2009

Jan Behrmann showed pictures of the proposed location for the next SPC meeting in Kiel, Germany during the week of 24-27 August 2009. He noted that participants on the optional field trip would see no rocks, but would see “a lot of gunk”. Mori said that three days should be sufficient for the meeting. Ruppel requested that the meeting start on Tuesday. Schuffert pointed out that a Saturday stay-over makes a huge difference in airfare cost. Mori requested that IODP-MI poll SPC members via e-mail to finalize the meeting dates for either 24–26 or 25–27 August. This poll resulted in the latter dates being selected.

25.2.2. March 2010

Neville Exon said that Australia may be willing and able to host the meeting in one year’s time.

Mori adjourned the meeting at 15:38.