

IODP Science Planning Committee**9th Meeting, 4-7 March 2007****Osaka International House Foundation****Osaka, Japan*****Science Planning Committee (SPC)***

Keir Becker (chair)	Rosenstiel School of Marine & Atmospheric Science, University of Miami, USA
Jan Behrmann	Leibniz Institute for Marine Sciences, IFM-GEOMAR, Germany
Barbara Bekins	U.S. Geological Survey, Menlo Park, USA
Tim Byrne	Department of Geology and Geophysics, University of Connecticut, USA
Gilbert Camoin	CEREGE, Centre National de la Recherche Scientifique, France
Steve D'Hondt	Graduate School of Oceanography, University of Rhode Island, USA
Gabe Filippelli	Department of Earth Sciences, Indiana University-Purdue University, Indianapolis, USA
Hugh Jenkyns ^a	Department of Earth Sciences, Oxford University, United Kingdom
Hiroshi Kitazato	Institute for Research on Earth Evolution (IFREE), JAMSTEC, Japan
Yong-Il Lee	School of Earth and Environmental Sciences, Seoul National University, Korea
Chris MacLeod*	Department of Earth Sciences, Cardiff University, United Kingdom
Katsumi Marumo	National Institute of Advanced Industrial Science and Technology, Japan
Harue Masuda	Department of Geosciences, Osaka City University, Japan
James Mori (vice-chair)	Disaster Prevention Research Institute, Kyoto University, Japan
Greg Mountain	Department of Geological Sciences, Rutgers University, USA
Ritsuo Nomura	Faculty of Education, Shimane University, Japan
Rolf Pedersen	Department of Earth Science, University of Bergen, Norway
Christina Ravelo ^b	Ocean Sciences Department, University of California, USA
Carolyn Ruppel*	United States Geological Survey, Woods Hole, USA
Hiroaki Sato	Department of Earth and Planetary Sciences, Kobe University, Japan
Hiroyuki Yamamoto	Department of Marine Ecosystem Research, JAMSTEC, Japan
Zuyi Zhou	Department of Marine Geology and Geophysics, Tongji University, China

^aAlternate for Chris MacLeod^bAlternate for Carolyn Ruppel

*Unable to attend.

Liaisons, Guests, and Observers

Jamie Allan	National Science Foundation (NSF), USA
Naokazu Ahagon	Department of Earth Science, Hokkaido University, Japan
Jack Baldauf	JOI Alliance, Texas A&M University, USA
Daekyo Cheong	Department of Geology, Kangwon National University, Korea
David Divins	JOI Alliance, Joint Oceanographic Institutions, Inc. (JOI), USA
Carl Ebeling	U.S. Science Support Program, Joint Oceanographic Institutions, Inc. (JOI), USA
Nobuhisa Eguchi	IODP Management International, Inc., Sapporo Office, Japan
Dan Evans	ECORD Science Operator (ESO), British Geological Survey, United Kingdom
Peter Flemings (EDP)	Department of Geosciences, Pennsylvania State University, USA
Ulrich Harms	GeoForschungZentrum Potsdam, Germany
Tom Janecek	IODP Management International, Inc., Washington, D.C. Office, USA
Barry Katz (EPSP)	Energy Technology Company, Chevron, USA
Shin'ichi Kuramoto	Center for Deep Earth Exploration (CDEX), JAMSTEC, Japan
Hans Christian Larsen	IODP Management International, Inc., Sapporo Office, Japan
Young-Joo Lee	Korea Institute of Geoscience and Mineral Resources (KIGAM), Korea
Mike Lovell (STP)	Department of Geology, University of Leicester, United Kingdom
Alberto Malinverno	JOI Alliance, Borehole Research Group, Lamont-Doherty Earth Observatory, USA
Akihito Maruyama	National Institute of Advanced Industrial Science and Technology (AIST), Japan
Catherine Mével	ECORD Managing Agency (EMA), Paris Geophysical Institute (IPGP), France
Naohiko Ohkouchi	Institute for Frontier Research on Earth Evolution (IFREE), JAMSTEC, Japan
Hiroko Osawa	IODP Management International, Inc., Sapporo Office, Japan
Toshiyuki Oshima	Ministry of Education, Culture, Sports, Science, and Technology (MEXT), Japan
Dale Sawyer (SSP)	Department of Earth Science, Rice University, USA

9th SPC (4-7 March 2007) Meeting

Jeff Schuffert	U.S. Science Support Program, Joint Oceanographic Institutions, Inc. (JOI), USA
Ralph Stephen (IIS PPG)	Geology & Geophysics Department, Woods Hole Oceanographic Institution, USA
Noriyuki Suzuki	Department of Earth Science, Hokkaido University, Japan
Ryuji Tada (SSEP)	Department of Earth and Planetary Science University of Tokyo, Japan
Mike Underwood (SSEP)	Department of Geological Sciences, University of Missouri, USA
Elsbeth Urquhart	ECORD Science Support and Advisory Committee (ESSAC), Cardiff University, U.K.
Barry Zelt	IODP Management International, Inc., Sapporo Office, Japan

IODP Science Planning Committee

9th Meeting, 4-7 March 2007

Osaka International House Foundation

Osaka, Japan

EXECUTIVE SUMMARY (v1.2)

1.3. Approve SPC meeting agenda – highlight action items

SPC Consensus 0703-01: The SPC approves the agenda of its ninth meeting on 4-7 March 2007 in Osaka, Japan.

1.4. Approve last SPC meeting minutes

SPC Consensus 0703-02: The SPC approves the minutes of its eighth meeting on 28–31 August 2006 in Os, Norway.

1.6.2. Conflict-of-interest policy and statements

SPC Motion 0703-03: The SPC overrules the initial chair's ruling on potential conflict-of-interest of SPC member Tim Byrne, who has been invited, but not yet accepted, to be a co-chief in NanTroSEIZE stage 2 operations. The overruling allows Byrne to participate in the discussion of the status of proposals remaining at the Operations Task Force (OTF) (agenda item 11).

Mountain moved, Behrmann seconded; 15 in favor, 2 abstained (Byrne, D'Hondt), none opposed, 3 non-voting (Jenykns, Lee, Zhou).

6. IODP Science Advisory Structure (SAS)

6.1. Panel reports

6.1.1. Science Steering and Evaluation Panel (SSEP)

SPC Consensus 0703-04: The SPC should be able to designate a complex drilling project (CDP) after reviewing only its umbrella proposal.

SPC Consensus 0703-05: The SPC appoints Barbara John as a new co-chair of the Science Steering and Evaluation Panel (SSEP), effective immediately.

6.1.2. Site Survey Panel (SSP)

SPC Consensus 0703-06: The information prepared by an outside contractor as part of a shallow gas hazard or safety assessment could contribute to the scientific results of a drilling expedition if made available to the scientific community. The SPC request that the IODP-MI stipulate that these reports, and whenever practical the data and analyses they are based upon, are deposited in the Site Survey Data Bank (SSDB) and so made available to the community like any other drilling-related information useful to the aims of the drilling program.

6.1.5. Engineering Development Panel (EDP)

SPC Consensus 0703-07: The SPC appoints Makoto Miyairi as the Engineering Development Panel (EDP) vice chair, effective immediately.

6.2. Updates from PPG and DPG

6.2.1. Industry-IODP Science Program Planning Group (IIS PPG)

SPC Consensus 0703-08: The SPC endorses the initiative by the Industry-IODP Science Program

Planning Group (IIS PPG) to actively participate in a mini-workshop held in association with its planned July 2007 meeting in Japan, with the aim of engaging Japanese and Asian industry and fostering increased interest in the IODP.

SPC Consensus 0703-09: The SPC appoints Neil Frewin as a new member of the Industry-IODP Science Program Planning Group (IIS PPG), replacing resigned member John Hogg, effective immediately.

10. Global ranking of proposals

10.1 Select proposal pool to rank

SPC Motion 0703-10: The SPC will include Proposal 535-Full5/Add2 (Atlantis Bank Deep) in the ranking pool.

Sato moved, Becker seconded; 1 in favor, 1 abstained (Ravelo), 15 opposed, 1 absent (Zhou), 2 non-voting (Jenykns, Lee).

SPC Consensus 0703-11: The SPC defines the pool of proposals to be ranked for FY2009 and beyond as including 15 of the 18 proposals reviewed at this meeting. The three exceptions are: 555-Full3 (Cretan Margin), 667-Full (NW Australian Shelf Eustasy), and 535-Full5/Add2 (Atlantis Bank).

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

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

The SPC excludes Proposal 535-Full5/Add2 (Atlantis Bank Deep) from this year's ranking pool because the "clarification" provided in 535-Add2 represents such a significant expansion of the scope of Proposal 535-Full5 that the previous Science Steering and Evaluation Panel (SSEP), external, and SPC reviews are no longer adequate or fully applicable. The proponents should submit a revised full proposal incorporating the objectives of 535-Add2. The revised proposal will be reviewed by the SSEP at its first meeting after submission of the revised proposal.

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

SPC Consensus 0703-12: The SPC will forward at least the top nine ranked proposals to the Operations Task Force (OTF).

SPC Consensus 0703-13: The SPC forwards the top twelve of the fifteen ranked proposals in two groups to the Operations Task Force (OTF), for developing schedule options for FY2009 and beyond.

Group I includes the top-nine-ranked proposals:

- 505-Full5 Mariana Convergent Margin
- 659-Full Newfoundland Rifted Margin
- 633-Full2 Costa Rica Mud Mounds
- 552-Full3 Bengal Fan
- 644-Full2 Mediterranean Outflow
- 654-Full2 Shatsky Rise Origin

- 537B-Full4 Costa Rica Seismogenesis Project Phase B
- 522-Full5 Superfast Spreading Crust
- 661-Full2 Newfoundland Sediment Drifts

Group II includes the next three proposals (tenth through twelfth-ranked).

- 548-Full2 Chicxulub K-T Impact Crater
- 612-Full3 Geodynamo
- 581-Full2 Late Pleistocene Corallgal Banks

If not included in the FY2009-2010 schedules, Group II proposals will be re-reviewed and re-ranked at the next SPC ranking meeting. At its August 2007 meeting, SPC intends to review and prioritize among all the unscheduled Group I proposals remaining at OTF from this and all prior SPC rankings, with input from the OTF as to technical, logistical, and financial feasibility. At that review, the SPC may elect to return any of those proposals to the pool for review and re-ranking at its next ranking meeting.

11. Clarify status of proposals remaining at OTF

11.1 Approve adjusted FY08 and FY09 schedules

SPC Consensus 0703-14: The SPC receives the update on minor schedule adjustments reported by the Operations Task Force (OTF) for FY2008 *Chikyu* NanTroSEIZE operations and FY2008-2009 Mission Specific Platform (MSP) operations at Great Barrier Reef, and confirms that these are fully consistent with the August SPC consensus statements (0608-04 and 0608-05, respectively) approving those programs for the FY2008-2009 schedules.

SPC Consensus 0703-15: The SPC accepts the adjustments recommended by the Operations Task Force (OTF) to the FY2008-2009 U.S. Scientific Ocean Drilling Vessel (SODV) science operations schedule in response to National Science Foundation (NSF) budgetary guidance for FY2008 and other logistical factors. After a 1 January 2008 start date to international operations and a short transit, the approved schedule would include the following sequence:

- NanTroSEIZE Stage 1 coring (Proposals 603A-Full2, 603C-Full; subduction inputs and site NT3-01)
- Equatorial Pacific Paleogene Transect I (Proposal 626-Full2)
- Equatorial Pacific Paleogene Transect II, ending with remedial cementing of two Juan de Fuca CORKs installed on Expedition 301
- Bering Sea Pliocene/Pleistocene Paleoceanography (Proposal 477-Full4)
- Spanning the FY transition, a transit to the Southern Oceans with undetermined potential for brief additional science operations
- Canterbury Basin Sea Level (Proposal 600-Full)
- Wilkes Land Paleoceanography (Proposals 478-Full3, 638-APL2)

This adjusted schedule is as close as possible to the previously approved FY2008-2009 schedule (SPC Consensus 0608-03) given the budgetary and logistical constraints, except that it does not include an initial NanTroSEIZE observatory and the observatory-intensive second Juan de Fuca IODP expedition. Nevertheless, it still presents a strong mix of societally relevant, highly rated seismogenic zone, paleoclimate, and sea level objectives, early enough in Phase II that the results can be expected to have a significant positive impact on renewal of IODP post-2013.

In the event that the NSF, IODP-MI, and USIO cannot identify the resources to achieve the full sequence of FY2008 SODV operations above, the SPC recognizes that the fourth FY2008 expedition (Bering Sea paleoceanography) would need to be deferred, and that a completely different model for FY2009 SODV operations would need to be developed at the June 2007

Operations Task Force and August 2007 Science Planning Committee meetings.

19. Review of motions and consensus items

SPC Consensus 0703-16: The SPC thanks Mike Underwood for two years of dedicated and highly effective service as co-chair of the Science Steering and Evaluation Panel (SSEP). We really appreciated his stellar (*****) co-leadership of the SSEP proposal review and nurturing process, as well as his frank and insightful contributions on new IODP matters like missions. We wish him even longer and more fulfilling service - and unlimited time at sea - as a key member of the NanTroSEIZE project management team.

SPC Consensus 0703-17: The SPC thanks Jeff Schuffert for many years of stellar service as an IODP-MI science coordinator, particularly for producing such fine SPC minutes since the beginning of the IODP. Those minutes are an invaluable record of SPC proceedings. We were disappointed at the news after our last meeting that he had moved on from the IODP-MI, but we are glad to see him remaining in the IODP community at JOI/USSSP.

SPC Consensus 0703-18: The SPC thanks Hiroshi Kitazato for his service to the committee. He has much expertise in geology, paleontology, microbiology for living foraminifer, and even deep sea biology. His extraordinary efforts have reminded us that it will be important to consider environmental issues in carrying out a marine science program such as the IODP. The real talent is moving out from the SPC, but we believe that he will keep active in the science community.

SPC Consensus 0703-19: Professor Nomura has studied paleoceanography using benthic foraminifera. His research career started from reviewing the classification of benthic foraminifera, Cassidulina Group, and he became a world-famous paleontologist by successful re-classification of these based on detailed observations of the skeletons. He was an onboard scientist of ODP cruises, from which he contributed greatly to the Tertiary paleoceanography of the Indian Ocean. His style of science is always based on the huge data sets of foraminifera. In his career, he is a serious person. He looks modest, like a typical Japanese; however, he turns into a brave hunter when he finds a target in his research work. His recent interest is in the anthropogenic disturbance on the natural environment, and he is particularly active in the analyses of environmental change of coastal and estuary watersheds, such as Osaka Bay, Lakes Naka and Sinji, which are located nearby some highly populated areas in Japan. He is a mysterious person, and no one knows very much about his private life. Based on his self-evaluation, he is a tedious person among his family, because he does not have any hobbies or pleasures other than his own work! Now that he is leaving the SPC, he will no doubt be a boring person, since he will have too much time, which for the last three years he has devoted to the IODP. We are sad that he is leaving, but we can hope that he will come back to the IODP community in the near future. Until then, we wish him great enjoyment with his own time, not only for research work but also with his family.

SPC Consensus 0703-20: The SPC thanks Harue Masuda and Muneki Mitamura of Osaka City University for hosting our 9th meeting at the Osaka International House and a fascinating field trip to the regional fault systems. We also thank Issa Kagaya, Yui Masuda, Manami Ono, and AESTO for outstanding support of the meeting. We thoroughly enjoyed the cosmopolitan city of Osaka and hope to return here for future IODP meetings.

IODP Science Planning Committee

9th Meeting, 4-7 March 2007

Osaka International House Foundation
Osaka, Japan

FINAL MINUTES (v1.1)

Sunday	4 March 2007	09:00-18:00
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1. Introduction

1.1. Call to order and self-introductions

Keir Becker called the meeting to order at 09:00. All meeting participants introduced themselves.

1.2. Welcome and meeting logistics

Host Harue Masuda briefly outlined the meeting logistics. Keir Becker noted that a film crew would be filming in the morning (video only; no sound) for an educational DVD for Japanese scientists.

1.3. Approve SPC meeting agenda – highlight action items

Keir Becker highlighted four key expected outcomes from the meeting: (1) review and ranking of up to 18 proposals; (2) provide SPC input to the Science Advisory Structure (SAS) Executive Committee (SASEC) SAS review working group; (3) provide SPC input to the Management Forum; and (4) plan the August 2007 SPC review procedures for 1 April 2007 mission proposals. He also noted that recently forecasted U.S. budget shortfalls would necessitate adjustments to the previously approved FY2008-2009 schedule, and that options for the future would need to be developed in case budgets remain tight in FY2009 and beyond. Becker noted two changes to the agenda: (1) reversal of items 10 and 11 to permit ranking of SPC-level proposals first, followed by a review of the status of proposals already at the Operations Task Force (OTF); and (2) insertion of item 11.1 to approve the adjusted FY2008-2009 schedules. He also noted that at the end of agenda item 11, the committee would consider a more formal SPC review in August 2007 of proposals left at the OTF for more than two years. Becker asked for other changes or additions to the agenda. Without further comment, the committee approved the agenda by consensus.

SPC Consensus 0703-01: The SPC approves the agenda of its ninth meeting on 4-7 March 2007 in Osaka, Japan.

1.4. Approve last SPC meeting minutes

Keir Becker noted that minor typos had been identified and asked for any other comments or suggested changes to the draft minutes. With no additional comments, the committee approved the revised minutes by consensus.

SPC Consensus 0703-02: The SPC approves the minutes of its eighth meeting on 28–31 August 2006 in Os, Norway.

1.5. Items approved since August 2006 SPC meeting

Keir Becker noted that there had been no formal SPC actions since the previous meeting. He also noted that uncertainties that existed in August 2006 over gas hazards for Proposal 600-Full (Canterbury Basin) had been resolved positively at the January 2007 Environmental Protection and Safety Panel (EPSP) meeting.

1.6. SPC procedures and protocol

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

Keir Becker referred to the SPC terms of reference, briefly summarized a few salient points from Robert's Rules of Order, and described how the meeting would be conducted. He noted that a two-thirds vote or consensus was required for a decision. Because the concept of consensus is not defined in Robert's Rules of Order, Becker defined the meaning of consensus for the SPC meeting. He noted that if time was short, committee members would be given preference to speak over other meeting participants. Becker also described the important aspects of the proposal review and ranking/voting procedures.

1.6.2. Conflict-of-interest policy and statements

Keir Becker reviewed the conflict-of-interest procedures for the meeting. He noted that the meeting participants should declare all potential conflicts now, including institutional, although in the past the committee had not generally regarded institutional conflicts as real conflicts. He also noted that a proponent of a proposal to be ranked for FY2009 and beyond could take part in the scheduling discussions for FY2008, and vice versa. The committee members and other meeting participants declared the following direct or potential indirect conflicts of interest regarding the proposals to be reviewed and proposals remaining at the OTF; the chair's ruling follows each members declaration(s).

SPC member conflicts:

Name	Declaration	Ruling by Becker
Kitazato	Institutional: JAMSTEC proponents on several proposals including 477-Full4 and NanTroSEIZE (603)	No conflict
Filippelli	Institutional: 637-Full2	No conflict
D'Hondt	Proponent: 677-Full (with OTF)	Conflict: 1
Camoin	Proponent: 519-Full2 (scheduled/recommended)	Conflict: 2
Byrne	Institutional: he is advisor to Kochi Core Center; Invited (but not accepted) to be co-chief for NanTroSEIZE stage 2 operations (with OTF)	No conflict; Conflict: 1*
Bekins	Institutional: 584-Full2, 553-Full2; Proponent: 621-Full (with OTF)	No conflict; Conflict: 1
Mountain	Co-author with proponent of 677-Full (unrelated paper) Proponent: (564-Full) and co-chief (Exp. 313)	No conflict No conflict
Pedersen	Listed as proponent on 547-Full4 but asked for name to be removed	No conflict
Sato	Obtained samples from Hole 1256D (522-Full5)	No conflict
Yamamoto	Institutional: JAMSTEC proponents on several proposals	No conflict
Nomura	Student applied to be shipboard scientist for 626-Full2	No conflict
Behrmann	Institutional: 633-Full2, CRISP (537)	No conflict
Ravelo	Institutional: 633-Full2, 659-Full, 661-Full2; Proponent & co-chief: 477-Full4 (scheduled/recommended)	No conflict; Conflict: 2

Observer and liaison conflicts:

Name	Declaration	Ruling by Becker
Malinverno	Institutional: 584-Full2	No conflict
Sawyer	Proponent: 659-Full (with SPC)	Conflict: 3
Flemings	Proponent: 589-Full3 (with OTF)	Conflict: 1
Underwood	Member NanTroSEIZE PMT, co-chief for one NanTroSEIZE expedition, proponent on NanTroSEIZE (603) proposals	Conflict: 1

Tada	Proponent: 605-Full2 (with OTF)	Conflict: 1
Janecek	Chair of NanTroSEIZE PMT	No conflict
Stephen	Proponent: NanTroSEIZE proposals (603)	Conflict: 2**
Urquhart	Proponent: 659-Full2 (with SPC)	Conflict: 3
Ahagon	Co-chief of first Equatorial Pacific expedition (626-Full2) (scheduled/recommended)	Conflict: 2

Conflicts:

- 1: Conflicted for the discussion of proposals remaining at OTF and the presentation of the OTF report
- 2: Conflicted for the discussion of expedition scheduling
- 3: Conflicted for the presentation and discussion of proposals with SPC

Notes:

* Byrne was initially ruled by Becker as conflicted for the discussion of proposals remaining at OTF and the presentation of the OTF report; however, this ruling was subsequently reversed in SPC Motion 0703-03.

SPC Motion 0703-03: The SPC overrules the initial chair’s ruling on potential conflict-of-interest of SPC member Tim Byrne, who has been invited, but not yet accepted, to be a co-chief in NanTroSEIZE stage 2 operations. The overruling allows Byrne to participate in the discussion of the status of proposals remaining at the Operations Task Force (OTF) (agenda item 11).

Mountain moved, Behrmann seconded; 15 in favor, 2 abstained (Byrne, D'Hondt), none opposed, 3 non-voting (Jenkyns, Lee, Zhou)

Note: later in the meeting the SPC decided to defer discussion of the status of proposals remaining at OTF until the planned review of these proposals at the August 2007 meeting (see final paragraph of SPC Consensus 0703-13).

** Stephen forgot to declare that he was a proponent on 535-Full5. He attended the presentation and discussion of proposals until just before the discussion of 535-Full5 when it was noticed that he was a proponent. He left the room for the remainder of the presentations and discussion of proposals with SPC.

2. Agency reports

2.1. Lead Agencies report

The lead agencies did not give a joint report to the committee.

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

Toshiyuki Oshima had nothing to add to the MEXT report given in the agenda book.

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

Jamie Allan provided an update on the NSF budget projections for IODP operations in FY2008 and FY2009. He also noted one update relative to the report in the agenda book: Jarvis Moyers has been appointed as Acting Assistant Director, Geosciences Division. He also noted a correction to the report in the agenda book: the draft environmental impact statement (EIS) for U.S. Scientific Ocean Drilling Vessel (SODV) operations will be delivered in late March or April 2007, not in February.

Byrne asked if there were any constraints on how the program manages the new budget. Allan noted that the NSF will need to work closer with the program, MEXT and EMA. Filippelli asked if the SODV will be more expensive to operate than the *JOIDES Resolution*. Allan noted that, in general, operational costs (e.g., fuel) have been rising, as well as other costs (e.g., drill strings). He pointed out that the original plan was to have more services on board in IODP relative to ODP, but that plans may now have to be scaled back, and that support will certainly not be at the hoped-for

level, though he was unable to give specifics. Mountain stated that some concrete numbers would be useful. Allan said that \$52M is the projected, estimated contribution of the NSF to IODP for platform operating costs (POC) and science operating costs (SOC) for FY2008, dependent on actual funding availability.

2.4. ECORD Managing Agency (EMA)

Catherine Mével reported on ECORD Management Agency activities. Addressing the budget situation, she reported that the ECORD Council had approved a \$750,000 budget increase requested by the ECORD Science Operator (ESO) to implement Expedition 313, New Jersey Shallow Shelf, in FY2007. For FY2008 and beyond she noted that ECORD member countries are working to accommodate a 60% increase in membership fees. She noted that in particular, Canada had been asked to contribute more. Mével announced that the ECORD mid-term review report has been released, and summarized its mostly positive findings. She described three Magellan workshops that were funded for 2007: (1) Marine impacts and environmental consequences; (2) Exploring escarpment mud mound systems and mud volcanoes with new European strategies for sustainable mid-depth coring; and (3) Southern African climates, Agulhas warm water transports and retroflexion and inter-ocean water exchanges. She concluded by describing some planned outreach activities at the April 2007 European Geophysical Union (EGU) meeting in Vienna, including a joint IODP- International Continental Scientific Drilling Program (ICDP) town hall meeting, and an ECORD-IODP booth.

2.5. China Ministry of Science and Technology (MOST)

Zuyi Zhou presented a review of IODP-China activities since August 2006. He highlighted the MARCO-POLO post-cruise meeting in Shanghai in September 2006, co-organized by IODP-China. He noted that the IODP-China office at Tongji University has been named a State Key Laboratory of Marine Geology. Zhou also mentioned a special session of “IODP Research” in the Chinese journal, *Advances in Earth Science*, co-edited by the IODP-China Office, and announced that the 9th International Conference on Paleoceanography (ICP9) would be co-organized by IODP-China and held in Shanghai in September 2007.

2.6 Korea Institute of Geoscience and Mineral Resources (KIGAM)

Young-Joo Lee presented a review of Korean-IODP (K-IODP) activities. He reviewed the history of KIGAM’s entry into the IODP and noted that at present Korea was the only member of the Interim Asian Consortium, though it is anticipated that other countries will join. Potential new members include Australia, Taiwan, New Zealand, Russia, and India. He noted that three Korean scientists participated in IODP cruises in 2006 (Expedition 312, and the *Chikyu*’s Shimokita shakedown cruise); Koreans are also proponents on three IODP proposals (604-Full, Ulleung Basin; 605-Full2, Asian Monsoon; and 645-Full, North Atlantic Gateway). Lee described promotional activities of K-IODP and listed some key tasks, which include adding new members to the consortium, drilling in Korean waters, and development of a national science plan.

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

3.1. Science Planning and Deliverables

Hans Christian Larsen previewed contents of the fourth edition of the program journal, *Scientific Drilling*, which will be available later in March 2007. He described a new streamlined process for expedition publications that will result in uniformity and cost savings. He also announced that the new web portal at www.iodp.org, featuring “doorways” for different users, was now online. Larsen reviewed ongoing activities in the field of data management, and described several recent data management meetings. He presented statistics for the most recent proposal submission deadline (1 October 2006), as well as statistics for all active proposals. He noted that the number of new proposal submissions at the most recent deadline was the lowest since the inception of the program, but was hopeful that the number would increase for the 1 April 2007 submission deadline. Larsen

enumerated the completed FY2006 and scheduled FY2007 long range planning workshops, mentioned that the topical symposia for FY2007 would be on North Atlantic Variability (in August 2007), and showed the schedule for upcoming thematic, long-term science reviews. He mentioned that the latter would look at the impact of the expedition and post-cruise science in a particular field. Larsen mentioned that a draft site survey data confidentiality policy appears in the agenda book, presented two excerpts from it, and suggested that, if necessary, the SPC can add a discussion on the policy to the agenda. He also presented excerpts from two documents in the agenda book which promote closer ties between the IODP and the International Continental Scientific Drilling Program (ICDP) through joint core storage and curation, and joint proposal evaluation, and again suggested that the SPC may want to add an item to the agenda to discuss these topics. Larsen concluded by presenting some thoughts on scientific planning within a new budget reality. He noted that at present, it appears that perhaps only 50% of the originally envisioned number of IODP expeditions through 2013 (~ 130) will be possible, raising the question of what constitutes the optimum science portfolio given the resources now available. He noted that it is the SAS that sets the program goals and milestones, and that therefore it must now start thinking in a new cost-conscious mode.

Allan said that he appreciated Larsen's efforts to clearly spell out the new reality in light of recent budget developments, and suggested that the community should perhaps start to think in terms of what is "good enough" to solve problems. Regarding proposed joint activities between IODP and ICDP, Allan asked Larsen if he had considered how to overcome bureaucratic difficulties associated with the different funding models of the two programs. Larsen replied that this issue had not yet been addressed. Flemings commented that scheduling the Geohazards workshop at the same time as the August 2007 SPC meeting was a mistake. Larsen explained that the workshop's steering committee tried to avoid this conflict, but were unable to. Bekins asked Larsen to describe the products expected, and their due date, from the May 2006 Fault Zone workshop. Larsen said that the conveners had requested a special, dedicated edition of *Scientific Drilling* with extended abstracts, which is planned for publication in June or July 2007. He also mentioned that an *Eos* article was to have been submitted, but was not. D'Hondt noted that *Eos* had recently changed its policy on long workshop reports, with a new limit of 500 words. He further noted that the *Eos* article for the October 2006 Subseafloor Life workshop was due on Monday (5 March 2007).

3.2. Science Operations – including January Operations Task Force (OTF) report

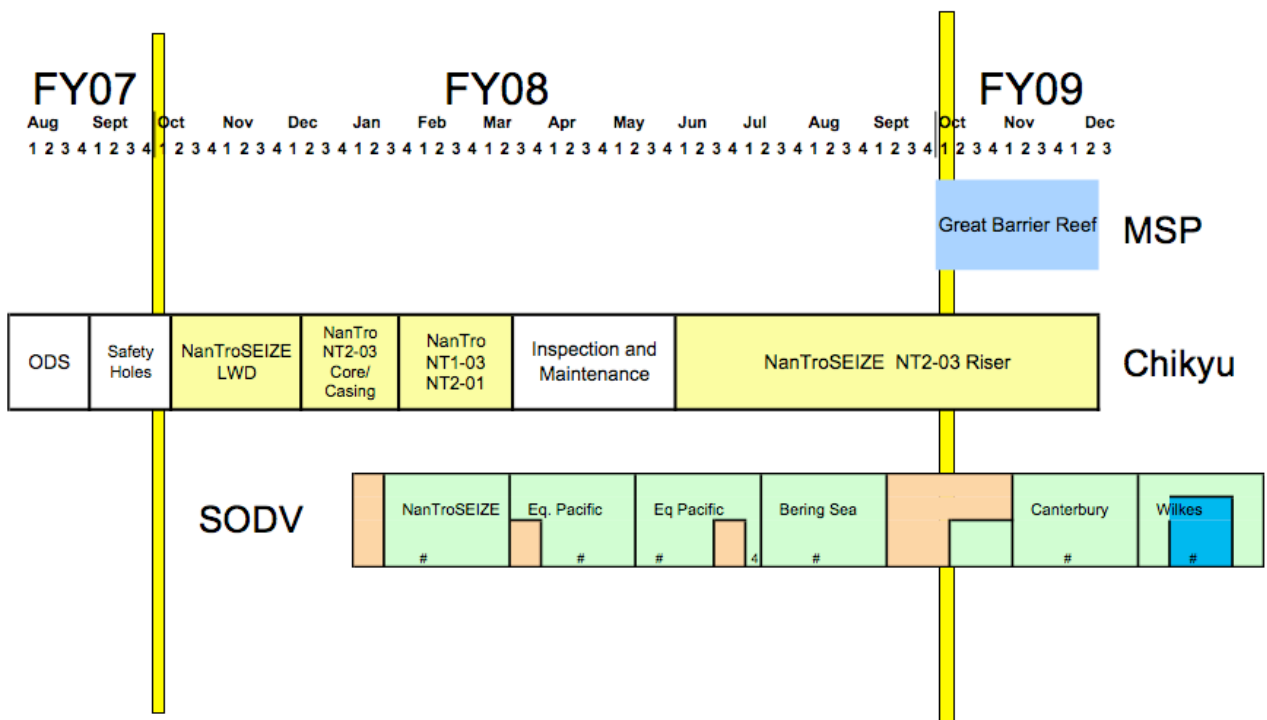
Conflicted meeting participants (D'Hondt, Camoin, Bekins, Ravelo, Flemings, Underwood, Tada, Ahagon) left the room prior to the OTF report by Tom Janecek.

Tom Janecek began his presentation with a review of previously SPC-approved schedules for the U.S. SODV (SPC Consensus 0608-03), *Chikyu* (SPC Consensus 0608-04) and Mission Specific Platform (MSP) operations (SPC Consensus 0608-05), and showed a graphic detailing scheduled FY2008-2009 expeditions for each platform as of the August 2006 SPC meeting. Janecek then outlined subsequent modifications for the FY2008 SODV schedule which incorporated: a positive EPSP evaluation of Canterbury Basin (600-Full); revised delivery date of the SODV; NSF budget guidance projecting 25-30% less than required; and Japanese Fishing Union restrictions for NanTroSEIZE operations in March through May. He proceeded to describe various scheduling models for the SODV that were developed and considered at OTF meetings in February and March 2007. These included the "bookend" model with drilling in early FY2008 and late FY2009 and down time in the middle, and the "upfront" model with drilling throughout FY2008 and early FY2009 and no drilling in the remainder of FY2009; the latter was preferred by the OTF. He enumerated the criteria used to evaluate several variants of the upfront model, all of which started with either an Equatorial Pacific or NanTroSEIZE expedition. Janecek detailed the decision process behind the choice of the latest preferred FY2008-2009 SODV schedule, which begins with NanTroSEIZE, followed by two Equatorial Pacific expeditions, Bering Sea, a long transit with time for limited, as-yet unscheduled, operations in late FY2008/early FY2009, followed by Canterbury

and Wilkes in early FY2009 (see figure). Janecek noted that this model remained truest to the previous SPC consensus (0603-03) for SODV operations.

Janecek presented the FY2008 *Chikyu* schedule, which, relative to the previously SPC-approved schedule, included only minor modifications to provide time for drilling some “safety holes” in late September and early October 2007. Janecek noted that there was no reduction in NanTroSEIZE operational time with the slightly modified schedule (see figure).

Janecek presented the FY2008-2009 MSP schedule and noted that, as a response to lead agency requests for cost saving measures in FY2008, the Great Barrier Reef project has been delayed to the start of FY2009 (see figure). He noted that this implied there would be no MSP operation in FY2008, and no other MSP operation in FY2009, although some lead-time expenses would be incurred in FY2008.



Katz noted that the FY2008 *Chikyu* schedule appears to impinge on the fisheries ban window (March-May). Janecek explained that the diagrammed schedule is not exact. Behrmann observed that the time window for the site NT2-03 *Chikyu* expedition seems shorter in comparison to the previous schedule. Janecek explained that, again, this was a graphical artifact, and that in reality there was no problem with the allotted time. Becker noted that the *Chikyu* schedule does not need SPC approval.

Addressing the MSP schedule, with no FY2008 operation, Becker referred to SPC Consensus 0503-4, which mentions that as a first priority in scheduling MSP operations, the SPC recommends implementing only highly ranked proposals, even if it means not conducting an MSP operation in a particular year. In light of this consensus statement, Becker asked Janecek if another consensus statement from the SPC was required. Janecek replied that reaffirmation of this principle would be good, but that another consensus statement was not necessary.

Referring to the FY2008-2009 SODV schedule, and the long transit between Bering Sea and Canterbury, Mountain asked about fuel costs for such a transit. Janecek explained that fuel cost was not the main issue, and the reality is that there is currently nothing else available to fill the gap between the two expeditions. Baldauf noted that both Canterbury and Wilkes are relatively inexpensive projects, so that the transit penalty was offset by the low cost of these two projects.

Bekins questioned the necessity of discussing FY2009 scheduling when what was required now was information for the FY2008 program plan. Janecek explained that by the time a schedule is approved at the August 2007 SPC meeting, there will be only 13 months until the start of FY2009 and that it would be wise to approve the first two FY2009 operations (Canterbury and Wilkes) now to “get ahead of the game”. Byrne asked what other options, such as NanTroSEIZE, were considered to fill out the transit time between Bering Sea and Canterbury. Baldauf replied that October was outside the weather window for NanTroSEIZE. Behrmann, following up on Bekins question, asked if discussions could be restricted to the end of Bering Sea (Sept. 2008), as perhaps there are currently unranked projects that could fit into the gap between Bering Sea and Canterbury. Baldauf explained that the chief concern is that the FY2008 budget assessment is affected by expenditures for early FY2009 projects. Filippelli asked about the implications of a two-week delay to the start of the SODV operations, in particular, was there a plan for dealing with the loss of Bering Sea should it drop off the schedule because of costs. Becker replied that under these circumstances, the SODV schedule would switch to the bookend model and the OTF and SPC would have to consider moving the Canterbury and Wilkes projects to the end of FY2009.

Becker asked the committee if it was prepared to approve the FY2008-2009 plan now, or if it would prefer to wait until Tuesday (6 March). Pedersen asked if there was an advantage to voting now. Becker responded that anything that will be ranked at this meeting will be too late to factor into the FY2008-2009 plan. There was general agreement to defer program approval until Tuesday.

4. Implementing Organization (IO) reports

4.1. Center for Deep Earth Exploration (CDEX)

Shin'ichi Kuramoto reviewed the *Chikyu* schedule from 2006 through 2008, as of February 2007. He gave an overview of the August-October 2006 Shimokita shakedown cruise, noting that the objectives were to confirm the capability of riser drilling in 1000m water depth, perform a system integration test (SIT), and train and familiarize the crew with the systems and equipment. He noted that all major items of the SIT were completed successfully, except for some damage to the lower marine riser package (LMRP) during a second emergency disconnect (EDS), which was necessitated when a low pressure system resulted in high (>10m) seas. Kuramoto thanked the 28 advisors from IODP member countries who participated in the shakedown cruise. He briefly described a couple of oversea drilling SITs (ODS): offshore Kenya, where current speeds were high; and off Western Australia, where the objective was to drill a deviated hole. Kuramoto reviewed the four-stage concept that will be used for NanTroSEIZE expeditions. He gave a status report on NanTroSEIZE preparation, noting that the stage 1 co-chiefs have been selected, the Scientific Prospectus (SP) had been sent to Texas A&M University (TAMU) for publication, and that invitations had been issued for eight stage 2 co-chiefs. He also reviewed the staffing model for stage 2 riser expeditions, which employs a staggered rotation schedule for co-chiefs. He listed NanTroSEIZE-related publications and described various outreach activities, including an educational program called “Sand for Students”.

Mountain noted that the U.S. SODV may eventually drill offshore northwestern Australia and wondered if any information from recent *Chikyu* commercial operations in that area could be made available. Kuramoto said that the information was confidential.

4.2. U.S. Implementing Organization (USIO)

David Divins gave an update on the status of the U.S. Scientific Ocean Drilling Vessel (SODV). He noted that the original plan to stretch the *JOIDES Resolution* (JR) could not be implemented with the fixed budget of \$115M given recent significant increases in costs. He noted that options were being explored, including a refit within the existing hull, and outlined the key components of the planned refit. Divins mentioned that shipyard negotiations were underway, and that the vessel was currently in Singapore with significant life extensions and upgrades in progress. He provided a

comparison of specifications for the alternate (non-stretched) design of the SODV versus the JR, and showed that the SODV would have 27% more deck space. He stated that budget realities meant the USIO would have to work with the OTF and SPC to schedule “simple” expeditions. He also noted there would be increased operational risks because the ship would not be able to carry as many supplies as in the past. For the long term, Divins stated that the USIO needed to work with the SAS to evaluate the services offered versus the science that can be delivered, and with the other IOs and the IODP-MI to eliminate duplication of efforts. He highlighted the need to identify alternative sources of funding and “off-contract” work. He noted that the amount of time spent on off-contract work was unknown, and would depend on the science that was done for the IODP. He concluded by encouraging everyone to let the NSF know how they feel about recent budget cutbacks.

Mountain asked Allan how the scientific community can apply pressure to the NSF most effectively. Allan replied that because he was limited by law he could not give any advice.

4.3. ECORD Science Operator (ESO)

Dan Evans reported that results from Tahiti (Expedition 310) would be available very soon. Updating the status of Expedition 313, New Jersey Shallow Shelf, he reported that the proposed platform was involved in an accident and would likely not be available in 2007. He noted that an available alternate platform was more expensive, but that additional funding had been approved by the ECORD council last week, and contract negotiations were underway. He pointed out that before a contract could be signed, a geotechnical survey was required to demonstrate suitable ground conditions, but that arranging for such a survey was difficult because of U.S. regulations and monopolies. For the Great Barrier Reef (GBR), Evans reported that the GBR reef authority was satisfied with plans to minimize environmental impact. He cautioned that the use of IODP vessels by industry may lead to inaccurate perceptions. He noted that the GBR was provisionally scheduled for implementation by the ESO in the September-November 2008 weather window, but listed several factors that could cause a delay. He also noted that the ESO was not happy with the prospect of delaying the GBR until FY2009 and that, regardless, a lot of funds would be required up front in FY2008 to let contracts. Evans expressed hope that the SPC would maintain flexibility for an MSP operation to take place in FY2008, and not just in FY2009.

Becker noted that the SPC is already on record as approving the Great Barrier Reef (GBR) as an MSP operation in FY2008-2009 (SPC Consensus 0608-05) and asked Evans if the ESO needed anything further from the SPC. Evans again expressed concern about committing to a FY2009 start as this would reduce the chance of the expedition happening at all. Bekins asked if the operation did take place in FY2009, would it be late FY2009. Evans confirmed that an FY2009 start would be in September 2009. Furthermore, he noted that it would not be worth doing the GBR in late FY2008 or early FY2009 due to increased risk to the operation.

5. Science Advisory Structure Executive Committee (SASEC) report

Keir Becker presented highlights of the second SASEC meeting (November 2006). He mentioned the SASEC SAS review working group but deferred discussion on this topic because it was covered by agenda items 7 and 14. He reported that the SASEC recommended that the IODP-MI support a revised Large Igneous Provinces (LIPs) workshop; SASEC also encouraged submission of workshop proposals on Cretaceous/Paleogene Extreme Climates and IODP/ICDP Ultra-high Resolution Sedimentary Records. He also noted that the SASEC endorsed partnerships with industry as long as the “scientific integrity of the program” was preserved. Becker reported that the SASEC modified slightly, then approved the draft mission implementation plan produced by the mission implementation working group, and noted that the final plan was posted on the IODP web site. He noted that this topic would be addressed in agenda item 13. He then presented SASEC Consensus 0607-11 which articulates a plan to update the IODP Initial Science Plan (ISP) by he

end of 2008. He noted that the update to the ISP was distinct from a separate activity that will start in a few years to write a new science plan for the second 10 years of the IODP. Becker also presented two SASEC consensus statements (0607-05 and 0607-06) addressing long-term scientific evaluation and noted that the review committee will include one SPC member.

Returning to the planned SASEC update of the ISP by the end of 2008, Becker asked if there were any SPC nominations for the editorial board. D'Hondt asked for clarification on the intended outcome of the update. Becker explained that the intended outcome was an updated plan that took projected budget realities into consideration, and acknowledged improvements in techniques (e.g., related to sub-seafloor biology) that have appeared since publication of the ISP. Mori nominated Kenji Kato. Returning to the SASEC long-term evaluation of IODP science, Becker noted that the SPC will likely be asked by the SASEC for nominations for the review committee. Camoin nominated Tim Byrne.

6. IODP Science Advisory Structure (SAS)

6.1. Panel reports

6.1.1. Science Steering and Evaluation Panel (SSEP)

The SSEP report was given in two parts; the first by Ryuji Tada, the second by Mike Underwood. Tada presented a synopsis of the November 2006 SSEP meeting. He presented a list of the 15 proposals that were reviewed, mentioned that the panel was divided into three thematic breakout sessions to discuss the proposals, and presented the results of the reviews. Tada dwelt on the review of Proposal 522-Full5 (Superfast Spreading Crust), noting that there were several negative opinions voiced during the breakout session, and that two votes were taken to decide the proposal's fate. He indicated that the panel felt external pressure (in part from the SPC) to forward this proposal to the SPC in order to exploit a window of opportunity for scheduling quickly as an SODV expedition, which if missed would result in a significant delay in implementation. Tada also noted that some of the panel members felt that this proposal should have been treated as a new proposal, and therefore given a new proposal number, which would require external review. Tada also summarized the SSEP discussions on workshops and mission implementation.

Tada noted that Proposal 705-Pre2 (Santa Barbara Basin Climate Change) was a special case and presented SSEP Recommendation 0611-3.

SSEP Recommendation 0611-3: The SSEP recognizes 705-Pre2 as a special case, and suggests that one or more meetings should occur with various "stakeholders", including (a) proponents, (b) EPSP members, (c) potential science operators, and (d) IODP engineers to develop an adequate drilling strategy that meets EPSP criteria. The SSEP recommends that the first of these meetings coincide with the scheduled June 2007 EPSP Meeting.

Becker noted that this issue has already been addressed, and that the EPSP would preview 705-Pre2 at its June 2007 meeting.

Tada noted that the review of Proposal 709-Pre (Pacific Mesozoic Extreme Environments) raised the issue of drilling in difficult (chert) hard rock environments. The SSEP decided to invite a liaison from the Engineering Developing Panel (EDP) to give an overview about existing technologies and development plans for drilling and coring in such environments.

SSEP Consensus 0611-5: The SSEP approved to include discussion on technologies for difficult drilling and request a liaison from the Engineering Developing Panel to participate in the next SSEP meeting.

Flemings asked for clarification on the goals of such a session. Underwood explained that the SSEP wants to be educated on the limitations of drilling chert. Flemings noted that the USIO and EDP have had a lot of discussion about this, that it is included in the EDP's technology road map, and

that the SSEP should refer to this document. Becker told Underwood that the SSEP did have the option to send the proposal to the EDP for review. Underwood explained that the SSEP wanted to be educated about advances in technology.

Referring to the review of Proposal 522-Full5, Ravelo commented that the SSEP could have elected to send this proposal for a second external review. Tada maintained that perpetuating the proposal number leads to confusion, especially for those unaware of the history of the proposal. Schuffert explained that, because the scientific objectives of the proposal had not changed substantially, the same number was retained. Furthermore he asserted that retaining the proposal number gave the SSEP access to the fullest range of options in dealing with the proposal, whereas the assignment of a new proposal number would have meant, for example, that the previous versions of the proposal would not have been available to the SSEP. Mori, who attended the SSEP breakout session at which 522-Full5 was discussed, admitted there indeed was pressure from the SPC to forward this proposal to the SPC, in part based on his understanding that the Mission Moho workshop had reached a consensus that this site was the best choice for drilling to the Moho. Tada responded that he would have preferred a clearer message from the SPC on how to deal with this sort of situation. Underwood stated bluntly that the situation with Proposal 522-Full5 was the worst he'd seen within the SSEP, which he partly ascribed to the low (15) number of proposals reviewed at that meeting, which left lots of time for debate.

Underwood's presentation, which he titled "Turmoil at SSEP", comprised a lengthy review of the evaluation of Complex Drilling Projects (CDPs), and a discourse on the SSEP's role in mission implementation. In his presentation on CDPs he reviewed what is written in the IODP proposal guidelines and specified characteristics and criteria used by the SSEP for identifying a CDP. He also detailed the SSEP's procedures for dealing with CDPs, and identified the critical steps and some pitfalls. Finally, he mentioned two possible CDPs that were discussed at the November 2006 meeting: the Izu-Bonin-Mariana (IBM) Arc proposals (694-Full2, 697-Pre2, 698-Pre2), and Sagami Bay Seismic Monitoring (707-Full). Referring to 707-Full, Underwood stated that he believed that this proposal will not succeed unless a CDP is formed, and noted that the proponents are comfortable with this suggestion from the SSEP.

Allan stated that the CDP name is a problem, as CDPs have nothing to do with the complexity of the operation. He also suggested that the review of a CDP should be linked with a consideration of the operations involved. Underwood replied that the SSEP does not and cannot (because it is not equipped to do so) consider budget situations during their review; SSEP reviews science only. In the case of Proposal 707-Full (Sagami Bay Seismic Monitoring) he noted that ten observatories are planned; but that such a plan was destined not to succeed due to complexity and cost. The question, according to Underwood, was when to make this clear to the proponents. Becker noted that the SASEC believes CDPs should disappear now that the mission proposal category exists. Underwood's response was that the SSEP still believes that CDPs are required. Byrne questioned if the prime factor for CDP designation by the SSEP was whether there are components that could not stand on their own, and if so has the SSEP asked that about the recent IBM set of proposals (694 through 698). Underwood confirmed that that indeed was the essence of the debate - the SSEP felt that the IBM proposals could stand on their own, but the real question was whether the science would be maximized by CDP designation. In the case of Proposal 707-Full Underwood opined that the proponents cannot include all the necessary science in a single 25-page proposal and that it would have to be transformed to a CDP to succeed. He added that the SSEP should make a decision on CDP designation right away, and not let the decision drag on. Byrne asked if the IBM proposals could do well individually. Underwood replied that he thought this was so, but that with Sagami Bay (707-Full) there was a large amount of science that could not be done in one proposal. Underwood proposed that the SPC should be able to designate a CDP based on an umbrella proposal only.

SPC Consensus 0703-04: The SPC should be able to designate a complex drilling project (CDP) after reviewing only its umbrella proposal.

Becker noted that this statement was consistent with the procedures for dealing with mission proposals, which will be reviewed without a component proposal.

Underwood's presentation on missions reviewed the goals of missions, summarized the review mechanism and the SSEP's responsibilities in the evaluation process. He described mission designation by the SPC, possible outcomes for mission proposals, and listed the SSEP's role in stage 1 mission scoping. He described the SSEP liaison to the stage 1 core mission team as a burden that SSEP members did not initially sign up for. He also stated that he was uncomfortable with providing an advantage to one proponent group, but not all. Underwood also mentioned that one (of several) fears about mission designation is that missions will replace CDPs. He acknowledged the overlap between missions and CDPs is a source of confusion, but recognized that some of the fears about missions may go away once experience is gained in dealing with mission proposals. Underwood stated that the SPC should specify the categories of evaluation that the SSEP should focus on, but that they should not include budgetary or operational aspects. Becker agreed to expand the SPC discussion in agenda item 13 to include SPC expectations for SSEP reviews of mission proposals.

Tada presented SSEP Recommendation 0611-4 pertaining to the SSEP's nomination for a co-chair to succeed Mike Underwood.

SSEP Recommendation 0611-4: The SSEP recommends that SPC consider Barbara John for appointment as the next Co-Chair of SSEP.

The SSEP's nominee was appointed without further discussion.

SPC Consensus 0703-05: The SPC appoints Barbara John as a new co-chair of the Science Steering and Evaluation Panel (SSEP), effective immediately.

6.1.2. Site Survey Panel (SSP)

Dale Sawyer reported on the February 2007 SSP meeting. He summarized the proposals reviewed and provided detailed information, including SSP site characterization classifications, on those residing with the SPC and the OTF. Sawyer noted that the SSP recommends that two proposals be previewed by the EPSP: Proposal 548-Full (Chicxulub K-T Impact Crater) for issues associated with deep drilling in a petroleum province, and use of a Mission Specific Platform (MSP); and 685-Full (Ligurian Margin Borehole Observatory) because of slope stability issues. Sawyer provided comments on the IODP Site Survey Data Bank (SSDB), and requested that, for meetings away from Scripps Institution of Oceanography, where the SSDB is based, the IODP-MI continue to support travel costs to the meeting for one SSDB representative.

Larsen asked why such an SSDB representative would be needed. Sawyer expressed concern that if a serious problem should develop at a meeting, there would be no one to help. Mountain suggested that a fall back would be to have a local IT specialist on site during the meeting; however, Sawyer explained that the concern was more about potential difficulties associated directly with the SSDB, for example with use of the SSDB's seismic viewing software, INTviewer.

Sawyer presented an SSP consensus statement relating to Proposal 637-Full2 (New England Shelf Hydrogeology) which arose from previous SSP concerns about likely operational difficulties due to drilling in unconsolidated, possibly over-pressured sands (SSP Consensus 0607-01).

SSP Consensus 0702-1: The SSP is pleased to learn that SPC has recommended the formation of a scoping group to investigate the technological issues involved in drilling 637-Full2 New England Shelf, and looks forward to learning its outcomes.

Sawyer noted that he expected no action from this consensus as he believed proper steps were being taken to address the issue. Sawyer presented a second SSP consensus which arose as a result of the report from the SSP's liaison to the EPSP (Earl Doyle) which noted the excellent hazards assessment report prepared for Proposal 600-Full (Canterbury Basin) and presented at the January 2007 EPSP meeting.

SSP Consensus 0702-2: The SSP recommends that the data and results acquired by (or for) the IOs as part of hazard or safety surveys be submitted to the SSDB with open access for the scientific community. These data will often contain useful information that will benefit the science results of the program.

Mountain noted that data prepared for these types of studies sometimes contain confidential data, or sometimes contain the same site survey data that the proponent has access to, but with the added value of further analysis. Sawyer noted that the SSDB was equipped to deal with proprietary documents.

SPC Consensus 0703-06: The information prepared by an outside contractor as part of a shallow gas hazard or safety assessment could contribute to the scientific results of a drilling expedition if made available to the scientific community. The SPC request that the IODP-MI stipulate that these reports, and whenever practical the data and analyses they are based upon, are deposited in the Site Survey Data Bank (SSDB) and so made available to the community like any other drilling-related information useful to the aims of the drilling program.

Sawyer noted that the next SSP meeting was planned for Edinburgh, Scotland during the week of 11-16 July 2007.

6.1.3. Environmental Protection and Safety Panel (EPSP)

Barry Katz reported on the January 2007 EPSP meeting. He noted that the panel reviewed three proposals, and received an update on one other. For Proposal 600-Full (Canterbury Basin), Katz reported that exploratory wells in the basin showed no hydrocarbons, and a shallow hazard survey had revealed no significant risk issues. The panel approved 14 of 16 sites presented at the meeting. For Proposal 537A-Full5 (Costa Rica Seismogenesis Project Phase A), Katz noted that the review was limited to the non-riser portion of the project. He reported that fluid escape structures were present along the margin, but not near the drilling sites, and that stratigraphy could not be traced from one line to the next. The panel approved 10 of 11 sites presented at the meeting. The panel also reviewed sites for stage 1 NanTroSEIZE expeditions related to Proposals 603-CDP3, 603A-Full2, 603B-Full2 and 603C-Full. The panel approved all 13 proposed sites. With these reviews, Katz stated that the EPSP had now reviewed all proposals that were in the queue for drilling. Katz reported that the panel also discussed safety monitoring procedures for New Jersey (Expedition 313; Proposal 564-Full2), safety review guidelines for reef drilling, operational protocol, and logging-while-drilling (LWD) and measurements-while-drilling (MWD) templates. The panel also discussed the CDEX safety review process. Katz expressed concern over how the EPSP interacts with the CDEX safety panel, noting that CDEX acts as an operator, but is also involved in creating safety packages. Katz announced that the next EPSP meeting would be in Houston, U.S.A on 18-19 June 2007. The subsequent meeting is planned for 29-30 November in Germany.

Becker noted that the SSP has recommended previews of two additional proposals (548-Full, Chicxulub K-T Impact Crater; and 685-Full, Ligurian Margin Borehole Observatory). Katz replied

that, if necessary, they could be added to the agenda of the June 2007 meeting.

6.1.4. Scientific Technology Panel (STP)

Mike Lovell reported on the December 2006 STP meeting, at which the STP generated 1 recommendation, 24 consensus statements, and 10 action items. Lovell presented six consensus statements that had been previously identified by the SPC chair as of relevance to the SPC:

STP Consensus 0612-03: STP recommends that ESO upgrades its currently used downhole push-in temperature tool to an absolute accuracy of 0.01°C and a resolution of 0.001°C. This must be accomplished before the New Jersey Expedition

Consensus 0612-09: STP discussed the panel mandate at the December 2006 STP meeting and agreed that it did not need any modification at this time. The current mandate allows STP to restructure its two meetings per year to address immediate issues at one of its yearly meetings, while dealing with future issues and planning at the other (STP Consensus Statement 0612-12). Any specific changes will be addressed after the SASEC working group on SAS Review reports its findings.

Consensus 0612-10: STP will continue to have three working groups within its structure: Chemistry & Microbiology (CMWG); Petrophysics (including Physical Properties, logging, downhole measurements, paleomagnetism, and underway geophysics); Core Description (including Micropaleontology).

Consensus 0612-11: STP welcomes the presentation by Thomas Janecek on how the Operations Review Task Force may proceed in future, together with the opportunity for STP to become more involved in considering Expeditions in terms of Scientific Technology. STP agrees with the proposal that the VP Science Operations will report annually on expeditions reviewed in that time frame (in line with the proposed STP Roadmap agenda), and that where appropriate IODP-MI should request specific advice from STP and participation in individual reviews.

Consensus 0612-12: STP agrees to change the format of its twice-yearly meetings in the following way: both meetings will deal with immediate issues, while one meeting will deal with regular reports (IO, IODP-MI, etc.) and the other will consider future issues and planning allowing STP to be more proactive.

Consensus 0612-13: STP welcomes the adoption of a plan to implement larger diameter drill pipe on the SODV. STP offers its support for the full implementation of this plan since larger diameter pipe will allow the use of state-of-the-art well-logging tools during IODP. The IOs should provide the scientific community with information about these additional downhole logging capabilities.

Lovell reported that the next STP meeting would take place during the week of 3-6 June 2007 in Beijing, China.

Regarding STP Consensus 0612-12 (STP Meeting Format), Becker noted that he was glad to see that the STP welcomes the change in meeting format. Referring to STP Consensus 0612-03 (ESO Temperature Tool), Mountain expressed serious concern about the requirement for temperature logging as a minimum measurement. He noted that Expedition 313 (New Jersey Shallow Shelf) has no logging component and that none of the science party wants to make use of temperature measurements. He cited a risk of cave-in while waiting for temperature measurements to be made as justification for re-evaluating the necessity of temperature measurements as a minimum measurement. Becker declared that Mountain's question was a possible conflict-of-interest

(Mountain is a proponent of 564-Full and co-chief for Expedition 313). Becker also noted that there are SPC consensus statements on this exact issue (0410-20, 0603-14) which support the idea of recording temperature profiles as a minimum measurement. Following up, Bekins echoed Mountain's concern about hole stability and agreed that a hole collapse could jeopardize the success of the expedition. She asked where it would be appropriate to raise this issue. Becker replied that this type of issue should be raised during the review of the Scientific Prospectus, when the science is assessed to compare how it conforms to the program approved by the SPC. Bekins asked if the consensus statements permitted any flexibility in when temperature measurements should be made. Becker read SPC Consensus 0410-20 ("The SPC receives SciMP Recommendation 0406-9 and recommends wherever feasible measuring the temperature profile at each sedimentary IODP site."), and suggested that this statement provided adequate advice for the IODP-MI to act on this particular case.

6.1.5. Engineering Development Panel (EDP)

Peter Flemings reported on the January 2007 EDP meeting. He touched on a number of consensus items from that meeting, including EDP Consensus 0701-10 on weighted fluid operations, EDP Consensus 0701-04 on the importance of ROV capability on the U.S. SODV, EDP Consensus 0701-13 on the prediction and detection of overpressure in drilling operations, and EDP Consensus 0701-09 on the EDP endorsement of the engineering development proposal process developed by the IODP-MI. He noted that the latter was based on priorities outlined in the engineering development road map. Flemings reported that the next EDP meeting would take place 9-11 July 2007 in Japan at an as-yet to be named location.

Referring to EDP Consensus 0701-04, Becker asked if, and Flemings confirmed, that statement was directed at the USIO. Stephen asked where in the process borehole observatory technology for riserless holes is addressed. Flemings responded that it was covered in the engineering development proposal process. Following up, Janecek explained the sources of funding for the various types of engineering development proposals.

Flemings concluded by presenting the EDP's nomination for vice chair.

EDP Consensus 0701-01: Proposed New Vice Chairperson of EDP. The EDP nominates Dr. Makoto Miyairi as vice-chairperson of EDP.

The EDP's nominee was appointed without further discussion.

SPC Consensus 0703-07: The SPC appoints Makoto Miyairi as the Engineering Development Panel (EDP) vice chair, effective immediately.

6.2. Updates from Program Planning Groups (PPGs) and Detailed Planning Groups (DPGs)

6.2.1. Industry-IODP Science Program Planning Group (IIS PPG)

Ralph Stephen reported on the January 2007 IIS PPG meeting. He noted that the IIS PPG has a mandate and membership, but still needed mechanisms to achieve results. He reported that the IIS PPG is promoting the submission of two proposals for the 1 April 2007 submission deadline, and a third for possible submission one year later. Stephen noted that the Arctic Basin is one of the last remaining scientific frontiers and an area of mutual interest to academia and industry. He mentioned that the IIS PPG will prepare a white paper on possible Arctic targets of joint industry-academic interest. Stephen noted that the IIS PPG was trying to engage industry professionals as ambassadors in communicating and promoting IODP activities, and presented a related consensus statement from their latest meeting.

IIS-PPG Consensus 0701-4: IISPPG recommends that IODP-MI increase the awareness of IODP in the Japanese petroleum industry in addition to US and European efforts, for example by having a booth at the JAPT. In conjunction with the next meeting in Sapporo, IISPPG will participate in a

mini-workshop in Tokyo on "Applications of IODP data in petroleum exploration".

The SPC supported this initiative by consensus.

SPC Consensus 0703-08: The SPC endorses the initiative by the Industry-IODP Science Program Planning Group (IIS PPG) to actively participate in a mini-workshop held in association with its planned July 2007 meeting in Japan, with the aim of engaging Japanese and Asian industry and fostering increased interest in the IODP.

On the topic of industry expeditions, Stephen described two end member models for industry involvement: (1) the present mode of industry scientists participating in IODP expeditions; and (2) use of the drill ship for non-IODP purposes. In the latter mode, the IODP-MI would not be involved and the ship operators would be free to make arrangements such as leasing the vessel to industry. Allan noted that only when a vessel is off contract can it be used for industry use, and that otherwise it is difficult to involve industry use of vessels within the IODP.

Addressing the IIS PPG's mandate, membership and mechanisms, Stephen suggested that industry participation would require a change in the operational governance of the IODP. He recommended reducing the time between proposal submission and implementation as one step that could make the IODP more attractive to industry.

Stephen reported that the IIS PPG proposed to replace industry representative John Hogg (ConocoPhillips, Canada), who has resigned his membership on the IIS PPG, with Neil Frewin (Shell, Netherlands, recently relocated to Australia). Becker noted that the terms of reference of the IIS PPG specify the rights of lead agency countries and other IODP members to appoint members to the PPG, but that other appointments were approved by the SPC, and that Frewin falls in the latter category.

SPC Consensus 0703-09: The SPC appoints Neil Frewin as a new member of the Industry-IODP Science Program Planning Group (IIS PPG), replacing resigned member John Hogg, effective immediately.

Stephen announced that the next meeting of the IIS PPG will take place 24-25 July 2007 in Sapporo, Japan.

6.2.2. Hotspot Geodynamics DPG

Keir Becker noted that the agenda book contains an email from the DPG chair, Bob Duncan, about the group's first meeting. He noted that Duncan plans to distribute a brief report for the May 2007 SSEP meeting, and to attend the August 2007 SPC meeting to present a final report.

7. Science Advisory Structure Executive Committee (SASEC) Working Group on SAS I

Keir Becker presented a report on the SASEC-appointed working group charged with reviewing the Science Advisory Structure (SAS). Becker began by presenting the mandate of the working group as specified in SASEC Consensus 0607-07. He reviewed the time line of the working group, which met first on 1 November 2006. He noted that at the request of the SASEC, a SAS questionnaire had been distributed in mid-December to the "broader IODP community", and responses collected through February 2007. Reminding the SPC of its own mandate ("...The SPC shall be involved in any discussions concerning changes in the SAS..."), Becker said that the present meeting provides the SPC with an opportunity to provide input to changes in the SAS. He also noted that delivery of the final report from the working group will probably be deferred until the June 2007 SASEC meeting.

Becker reviewed the current IODP proposal process and noted previous changes to the SAS that were implemented in 2005 and 2006. He mentioned that the working group would create a diagram showing the advisory role of the technical advice panels (Engineering Development Panel; EDP

and Scientific Technology Panel; STP). Becker stated that a fundamental question to be addressed by the working group is whether the current SAS configuration and proposal process is optimal for the program as it enters into Phase 2, with three platforms operating simultaneously.

Becker reviewed the four questions posed in the working group's SAS questionnaire, and summarized the level of response from the various entities from which input was solicited. He noted that the responses suggested no major structural changes for the SAS, and that several good ideas for refining the SAS were received. Becker mentioned that as a result of recently revealed FY2008 budget shortfalls, the SASEC chair requested that the working group consider streamlining the SAS structure and/or procedures to achieve more effective planning and potential cost savings. He noted that the working group had adopted several ideas to address this concern, but pointed out that the working group did not identify any compelling reasons for major structural cuts to the SAS, and affirmed the importance of the existing SAS panels. Becker reported that the working group sees the SAS as a key mechanism for the IODP client or user community input, which will become even more important when budget realities force difficult choices, and when justification becomes necessary for renewal of the IODP beyond 2013. Becker then presented an extensive list of general issues raised either by the working group, or in responses to the questionnaire. Becker asked the committee to consider the issues, which would be returned to under agenda item 14. He also raised the issue of possible joint reviews of IODP and ICDP proposals and indicated two options to consider: a general process for reviewing all proposals submitted to both the IODP and ICDP, and a process for reviewing only those proposals that span both programs.

Mori requested that a copy of Becker's presentation be made available to the committee members in order to assure that they could consider all the points raised. The presentation was distributed by the IODP-MI science coordinators that same afternoon.

8. 2007 Management Forum I

Keir Becker reviewed the mandate and membership of the Management Forum (MF), and the original goals of the 28-29 March 2007 MF meeting, which were posed in the form of three questions (these appear in the agenda book). He then presented new considerations for the March 2007 MF meeting prompted by FY2008-2009 budget shortfalls, posed in the form of three different questions from the president of IODP-MI, Manik Talwani:

- (1) If SOC funding is severely reduced, where should budget cuts be applied?
- (2) Where should we look for additional funding and what accommodations to the IODP model would be necessary?
- (3) What role does SAS want to play in raising additional funds?

Byrne stated that his understanding was that both SOC and POC funding would be cut by about 25%, yet question (1) mentions a reduction in SOC funding only, and asked for clarification. Becker explained that the issue to address is what to do if funding (in general) is cut long-term. Bekins asked for clarification as to which were the more important questions to address – the three questions above, or the three questions that appear in the agenda book. Becker explained that the three questions above were the most important ones to address and that this topic would be revisited in agenda item 16.

Monday

5 March 2007

09:00-18:00

9. Presentation and discussion of proposals

Keir Becker outlined the SPC proposal review and ranking procedures. He noted that all proposals were to be ranked except 555-Full3, which was being withheld at the request of the proponents to allow them more time to work up recently acquired site survey data. Subsequent to these opening remarks Proposals 667-Full and 535-Full5 were also withheld from ranking (see SPC Consensus 0703-11). Becker also explained the duties of the watchdogs and stressed that the written review

letters should focus on the scientific merit of the proposals, not on operational aspects. He also emphasized that the review letters must be submitted to the IODP-MI science coordinators before the end of the meeting. The committee reviewed the eighteen full proposals in the order shown below, as organized on the agenda according to the three main themes of the IODP Initial Science Plan (ISP). For each proposal, the lead watchdog presented the scientific objectives and the committee discussed the objectives in detail. SSP chair Dale Sawyer and ECORD science coordinator Elspeth Urquhart remained out of the room for the entire proceedings as conflicted proponents. IIS PPG chair Ralph Stephen remained in the room until the end of the review of Proposal 522-Full5 when it was discovered that he was a proponent on 535-Full5. Stephen left the room before the review of 535-Full5 and for all remaining proposals. Christina Ravelo substituted for the absent Carolyn Ruppel as watchdog on Proposals 547-Full4, 633-Full2 and 612-Full3. The watchdog assignments for 659-Full were changed to Mori (lead), Zhou and Byrne.

Proposal	Short title	Watchdogs	Conflicts
9.1. Deep Biosphere and Subseafloor Ocean			
505-Full5	Mariana Convergent Margin	Bekins/ Yamamoto/ D'Hondt	None
547-Full4	Oceanic Subsurface Biosphere	Yamamoto/ Bekins/ Ravelo	None
555-Full3	Cretan Margin	Behrmann/ Byrne/ Masuda	None
584-Full2	TAG II Hydrothermal	Marumo/ Bekins/ Pedersen	None
633-Full2	Costa Rica Mud Mounds	Masuda/ Behrmann/ Ravelo	None
9.2. Environmental Change, Processes, and Effects			
548-Full2	Chicxulub K-T Impact Crater	D'Hondt/ Filippelli/ Jenkyns	None
552-Full3	Bengal Fan	Nomura/ Jenkyns/ Marumo	None
581-Full2	Late Pleistocene Coralgall Banks	Camoin/ Kitazato/ Mountain	None
618-Full3	East Asia Margin	Zhou/ Camoin/ Nomura	None
644-Full2	Mediterranean Outflow	Filippelli/ Nomura/ Camoin	None
661-Full2	Newfoundland Sediment Drifts	Kitazato/ Mountain/ Filippelli	None
667-Full	NW Australian Shelf Eustasy	Mountain/ Camoin/ Kitazato	None
9.3. Solid Earth Cycles and Geodynamics			
522-Full5	Superfast Spreading Crust	Pedersen/ Sato/ Becker	None
535-Full5	Atlantis Bank Deep	Sato/ Pedersen/ Becker	Stephen
537B-Full4	Costa Rica Seismogenesis Phase B	Byrne/ Mori/ Behrmann	None
612-Full3	Geodynamo	Mori/ D'Hondt/ Ravelo	None
654-Full2	Shatsky Rise Origin	Jenkyns/ Byrne/ Sato	None
659-Full	Newfoundland Rifted Margin	Mori/ Zhou/ Byrne	Sawyer Urquhart
Tuesday			09:00-18:00
6 March 2007			

10. Global ranking of proposals

Keir Becker summarized the ranking procedure. He noted that the pool of proposals to be ranked could be decided either by consensus, or by voting individually on each proposal. He explained that each committee member would receive a paper ballot listing all of the proposals chosen for ranking, and that the members would rank each proposal from 1 (highest rank) to N (number of proposals to rank; lowest rank), with no repeating numbers allowed. Members would then sign the ballot, which would be collected by the IODP-MI science coordinators who would tabulate the mean ranking and standard deviation for each proposal. Becker mentioned that the criteria for ranking should be relevance to the IODP Initial Science Plan (ISP) across the three themes and eight initiatives. He asked the committee to rank the proposals on their intrinsic scientific merit and recommended that

members think strategically since this may be the last group of proposals to have a realistic chance of being scheduled in time for scientific results to be available during consideration of renewal of the Integrated Ocean Drilling Program in 2013.

10.1 Select proposal pool to rank

Keir Becker solicited opinions on whether Proposal 535-Full5 should be included in the ranking pool. D'Hondt commented that if the science represented in the new addendum (Add2) reflected a radical change in objectives, then the proposal should be sent to the SSEP. Filippelli agreed. Bekins asked for clarification on the date the addendum was accepted (15 February 2007). Mori also agreed that the proposal should go to the SSEP. Pedersen noted that the proposal originally started with a Moho objective which was subsequently removed, then reinstated in the latest addendum. He also noted that the site location had changed, but that in fact the objectives and science remained the same. Becker stated that the issue was not the moving of a site, but the increase in penetration depth from 3 to 6 km. Mountain commented that the target was not imaged seismically, which made the ability to extrapolate information from this site to other locations a serious issue which deserves re-examination by the SSEP. Byrne agreed, citing the lack of a seismically imaged target and major change of objectives as reasons for returning the proposal to the SSEP, and therefore not ranking. Becker informally queried the committee to sense if anyone felt that 535-Full5 should be included in the pool to rank. With no supporters for ranking 535-Full5, Becker presented his suggestions for the ranking pool, which included all of the proposals except 555-Full3, 667-Full and 535-Full5.

Byrne raised the issue of Proposal 654-Full2 (Shatsky Rise Origin) and noted that the SPC had previously stated (SPC Motion 0603-21) that when the site survey status was improved (which is now the case), it could be forwarded to the OTF. Becker agreed, but noted that when previously ranked (March 2006), this proposal fell in Group II, which means that it returns to the SPC for re-review and ranking because it was not incorporated yet in any scheduling option.

Returning to 535-Full5, Sato requested a vote on whether it should be included in the ranking pool. Asked by Filippelli to clarify his reason for a vote, Sato explained that the proposal had high scientific merit and could have great impact, thus the SPC should rank it.

SPC Motion 0703-10: The SPC will include Proposal 535-Full5/Add2 (Atlantis Bank Deep) in the ranking pool.

Sato moved, Becker seconded; 1 in favor, 1 abstained (Ravelo), 15 opposed, 1 absent (Zhou), 2 non-voting (Jenykns, Lee).

A statement regarding proposals to be ranked was presented by Becker and accepted by consensus.

SPC Consensus 0703-11: The SPC defines the pool of proposals to be ranked for FY2009 and beyond as including 15 of the 18 proposals reviewed at this meeting. The three exceptions are: 555-Full3 (Cretan Margin), 667-Full (NW Australian Shelf Eustasy), and 535-Add2 (Atlantis Bank).

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

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

this proposal will be ready to rank at the next SPC proposal-ranking meeting.

The SPC excludes Proposal 535-Full5/Add2 (Atlantis Bank Deep) from this year's ranking pool because the "clarification" provided in 535-Add2 represents such a significant expansion of the scope of Proposal 535-Full5 that the previous Science Steering and Evaluation Panel (SSEP), external, and SPC reviews are no longer adequate or fully applicable. The proponents should submit a revised full proposal incorporating the objectives of 535-Add2. The revised proposal will be reviewed by the SSEP at its first meeting after submission of the revised proposal.

10.2 Balloting by SPC members

Each of the seventeen SPC members present and eligible to vote assigned the numerical rankings of one through fifteen to the fifteen proposals in the global ranking pool. The members submitted their rankings on signed ballots. Lee, Jenkyns and Zhou were the non-voting members present.

10.3 Tabulation of results

Eguchi and Zelt collected the ballots and tabulated the following results for the fifteen proposals ranked by the committee.

Rank	Proposal #	Short Title	Mean	St. Dev.	Group
1	505-Full5	Mariana Convergent Margin	5.59	3.36	I
2	659-Full	Newfoundland Rifted Margin	5.76	3.80	I
3	633-Full2	Costa Rica Mud Mounds	6.12	3.48	I
4	552-Full3	Bengal Fan	6.29	4.06	I
5	644-Full2	Mediterranean Outflow	6.35	3.44	I
6	654-Full2	Shatsky Rise Origin	6.65	4.00	I
7	537B-Full3	Costa Rica Seismogenesis Project Phase B	6.94	2.93	I
8	522-Full5	Superfast Spreading Crust	7.18	4.00	I
9	661-Full2	Newfoundland Sediment Drifts	7.29	4.13	I
10	548-Full2	Chicxulub K-T Impact Crater	8.18	5.04	II
11	612-Full3	Geodynamo	9.71	5.64	II
12	581-Full2	Late Pleistocene Coralgall Banks	9.94	4.19	II
13	618-Full3	East Asia Margin	10.47	3.79	III
14	584-Full2	TAG II Hydrothermal	11.35	3.32	III
15	547-Full4	Oceanic Subsurface Biosphere (OSB)	12.18	1.94	III

10.4 Select ranked proposals to forward to OTF

Keir Becker reviewed the scheme used at previous SPC meetings for selecting ranked proposals to forward to the OTF. This involved identifying three groups based on trends in the ranking statistics: a top-ranked group of proposals (Group I) which would be forwarded to the OTF where they would reside until logistical and fiscal circumstances permitted scheduling; an intermediate group (Group II) which would be forwarded to the OTF and remain there for one year only, and if not scheduled during that year would return to the ranking pool at the next ranking meeting; and a final group (Group III) which would not be forwarded to the OTF but would return to the ranking pool at the next ranking meeting.

Becker noted that this year the statistics did not show a clear division into three groups. He asked OTF chair Tom Janecek for guidance on whether the OTF would prefer to receive a lot of proposals or not. Janecek replied that there were already a number of good proposals at OTF. Becker stated that at the next (August 2007) meeting, the SPC will need to make an assessment of the relative priorities of all proposals that remain with the OTF. Mori suggested that since the statistics show no clear divisions, and given that all proposals at the OTF will need to be re-reviewed at the next SPC meeting, perhaps a single group only should be forwarded. Becker

acknowledged that this option should be considered. Filippelli agreed and noted that the top nine proposals covered all major IODP Initial Science Plan (ISP) themes. Becker countered by suggesting that the top 10 ranked proposals be forwarded to the OTF. D'Hondt asked for clarification on what would happen with the group of proposals at the OTF at the next SPC meeting. Becker answered that there would be an update on the status of each proposal. He noted that there are a lot of expensive-to-implement projects currently residing at the OTF, and mentioned that the SPC must consider science priorities versus available financial resources. Becker also explained that the SPC will need to reach a consensus on which proposals at the OTF (including those sent forward at this meeting) are the high priority ones that should be completed.

Mountain, considering the long term impact beyond 2013 on the choice of proposals to forward to the OTF, noted that none of the top nine ranked proposals were Mission Specific Platform (MSP) operations. Becker noted that the tenth ranked proposal, 548-Full2 (Chicxulub K-T Impact Crater) was an MSP proposal. Speaking for the ECORD Management Agency (EMA), Mével stated that Chicxulub, which would require deep riser drilling, was not practicable from a budgetary standpoint.

Several more suggestions for dividing the proposals in groups were proffered by committee members. Allan noted that the ranking procedure had no connection to the cost-benefit of each project, and that there was a real danger of ending up with no easily implemented MSP projects at the OTF. He suggested that the choice of proposals to forward to the OTF should be based on the best science but with a consideration for the cost benefit. Becker eventually succeeded in reaching a consensus to forward at least the top nine ranked proposals to the OTF, with the awareness that the top nine included no MSP operations.

SPC Consensus 0703-12: The SPC will forward at least the top nine ranked proposals to the Operations Task Force (OTF).

Returning to the topic of MSP operations, Mori suggested that at least the top ten ranked proposals should be forwarded to the OTF in order to assure the inclusion of at least one MSP project. Bekins wondered why, given that the Great Barrier Reef (GBR; 519-Full2) is currently scheduled for early FY2009, it was important at this meeting to forward another MSP operation. Evans explained that he anticipates that the GBR will occur in the year 2008, which would leave New England Shelf Hydrogeology (637-Full2), which currently is deficient in site survey data, as the only MSP operation at the OTF. Asked by Bekins to clarify the lead time required for an MSP operation, Evans stated that it was dependent on the specific project, and that a project such as Chicxulub would be a very long term project that would require significant scoping and was financially problematic. Asked by D'Hondt why Chicxulub would cost more than, for example, the Arctic Coring Expedition (Expedition 302), Evans replied that, as Chicxulub has not been scoped at all, he could not give specific figures but that costs for the oil-industry type of drilling that would be required were very considerable. Allan noted that a much larger rig would be required for the deeper penetrations planned for Chicxulub with respect to the Arctic project. Harms estimated a rough cost of \$20M to \$30M, but Evans suggested that the contracted costs would be more like \$30M-\$40M, which is three to four times the cost of New Jersey Shallow Shelf (564-Full2) or the GBR. Katz quoted an approximate day rate of \$100K for a jackup rig.

Becker suggested that the top nine proposals could constitute Group I, while the two MSP proposals, 548-Full2 and 581-Full2 (Late Pleistocene Corallgal Banks) could comprise a Group II. He reminded the committee that all proposals at the OTF would be re-prioritized at the August 2007 SPC meeting. After Mountain initiated a brief digression into the origin of the current ranking procedure, Becker proceeded to suggest forwarding the top twelve proposals to the OTF, all in a single Group I, again with the understanding that all proposals at the OTF would be re-evaluated in August. Mountain refined the suggestion by proposing that the 10 through 12th ranked proposal be

forwarded in Group II. The committee reached a consensus on this suggestion.

SPC Consensus 0703-13: The SPC forwards the top twelve of the fifteen ranked proposals in two groups to the Operations Task Force (OTF), for developing schedule options for FY2009 and beyond.

Group I includes the top-nine-ranked proposals:

- 505-Full5 Mariana Convergent Margin
- 659-Full Newfoundland Rifted Margin
- 633-Full2 Costa Rica Mud Mounds
- 552-Full3 Bengal Fan
- 644-Full2 Mediterranean Outflow
- 654-Full2 Shatsky Rise Origin
- 537B-Full4 Costa Rica Seismogenesis Project Phase B
- 522-Full5 Superfast Spreading Crust
- 661-Full2 Newfoundland Sediment Drifts

Group II includes the next three proposals (tenth through twelfth-ranked).

- 548-Full2 Chicxulub K-T Impact Crater
- 612-Full3 Geodynamo
- 581-Full2 Late Pleistocene Coralgall Banks

If not included in the FY2009-2010 schedules, Group II proposals will be re-reviewed and re-ranked at the next SPC ranking meeting. At its August 2007 meeting, SPC intends to review and prioritize among all the unscheduled Group I proposals remaining at OTF from this and all prior SPC rankings, with input from the OTF as to technical, logistical, and financial feasibility. At that review, the SPC may elect to return any of those proposals to the pool for review and re-ranking at its next ranking meeting.

10.5 Nominate co-chief scientists for forwarded proposals

Keir Becker explained that, after discussions with Operations Task Force (OTF) chair Tom Janecek, the nomination of co-chiefs would be deferred until the August 2007 SPC meeting. Janecek added that this decision was reached under the assumption that the lead proponents of the proposals at the OTF would by default be considered as nominees for co-chief and would be the contact point for any scoping issues.

11. Clarify status of proposals remaining at OTF

Keir Becker reminded the committee that there will be a major review of all proposals remaining with the OTF at the August 2007 SPC meeting, and suggested that at the present meeting there was no need to go through them proposal by proposal. This would mean that agenda items 11.2 (clarify status of proposals remaining at OTF that have been scheduled or recommended for scheduling in FY2007-2009) and 11.3 (clarify status of other proposals available for future consideration by the OTF) would require no action. He asked if there were any comments on specific proposals. There were no comments. Janecek asked for reaffirmation of the SPC's commitment to SODV operations in the north Pacific as stated in SPC Consensus 0608-17 ("The SPC approves a ship-track model for SODV operations in FY2009-10 that would proceed clockwise through the Pacific Ocean, assuming a start at Wilkes Land."). Becker asked the committee if there were any suggested changes to this consensus statement, but suggested there was no point in changing it without an analysis of the options to indicate there was something better. The committee offered no comments and so the previous consensus statement stands and will be used as the basis for a working model for the June 2007 OTF meeting.

11.1 Approve adjusted FY08 and FY09 schedules

Conflicted SPC members (Camoin, Ravelo) and observers (Ahagon) left the room prior to

discussion and approval of the FY2008 and FY2009 schedules. Keir Becker presented two draft statements addressing the *Chikyu* and U.S. SODV FY2008 and FY2009 schedules. These were both accepted by consensus without further discussion.

SPC Consensus 0703-14: The SPC receives the update on minor schedule adjustments reported by the Operations Task Force (OTF) for FY2008 *Chikyu* NanTroSEIZE operations and FY2008-2009 Mission Specific Platform (MSP) operations at Great Barrier Reef, and confirms that these are fully consistent with the August SPC consensus statements (0608-04 and 0608-05, respectively) approving those programs for the FY2008-2009 schedules.

SPC Consensus 0703-15: The SPC accepts the adjustments recommended by the Operations Task Force (OTF) to the FY2008-2009 U.S. Scientific Ocean Drilling Vessel (SODV) science operations schedule in response to National Science Foundation (NSF) budgetary guidance for FY2008 and other logistical factors. After a 1 January 2008 start date to international operations and a short transit, the approved schedule would include the following sequence:

- NanTroSEIZE Stage 1 coring (Proposals 603A-Full2, 603C-Full; subduction inputs and site NT3-01)
- Equatorial Pacific Paleogene Transect I (Proposal 626-Full2)
- Equatorial Pacific Paleogene Transect II, ending with remedial cementing of two Juan de Fuca CORKs installed on Expedition 301
- Bering Sea Pliocene/Pleistocene Paleoceanography (Proposal 477-Full4)
- Spanning the FY transition, a transit to the Southern Oceans with undetermined potential for brief additional science operations
- Canterbury Basin Sea Level (Proposal 600-Full)
- Wilkes Land Paleoceanography (Proposals 478-Full3, 638-APL2)

This adjusted schedule is as close as possible to the previously approved FY2008-2009 schedule (SPC Consensus 0608-03) given the budgetary and logistical constraints, except that it does not include an initial NanTroSEIZE observatory and the observatory-intensive second Juan de Fuca IODP expedition. Nevertheless, it still presents a strong mix of societally relevant, highly rated seismogenic zone, paleoclimate, and sea level objectives, early enough in Phase II that the results can be expected to have a significant positive impact on renewal of IODP post-2013.

In the event that the NSF, IODP-MI, and USIO cannot identify the resources to achieve the full sequence of FY2008 SODV operations above, the SPC recognizes that the fourth FY2008 expedition (Bering Sea paleoceanography) would need to be deferred, and that a completely different model for FY2009 SODV operations would need to be developed at the June 2007 Operations Task Force and August 2007 Science Planning Committee meetings.

11.2. Scheduled or recommended for FY2007-2009

Deferred until the August 2007 SPC meeting when all proposals remaining with the Operations Task Force (OTF) will be re-evaluated (see final paragraph of SPC Consensus 0703-13).

11.3. Available for future consideration by OTF

Deferred until the August 2007 SPC meeting when all proposals remaining with the Operations Task Force (OTF) will be re-evaluated.

12. International Continental Scientific Drilling Program (ICDP) Report

Uli Harms reported on ICDP developments and trends. He reported on several joint IODP-ICDP activities, including joint workshops (Fault Zone Drilling; and Chicxulub). He noted that proponents were uncertain how to orchestrate joint IODP-ICDP proposals. Harms reported that the first joint IODP-ICDP project would be New Jersey Shallow Shelf (IODP Expedition 313) planned

for the summer of 2007. He mentioned two other joint project proposals: Chicxulub K-T Impact Crater (IODP Proposal 548-Full2) and Campi Flegrei Caldera (IODP Proposal 671-Pre). Other joint activities mentioned by Harms included data management, discussions on joint proposal review and core repositories, panel representation, and joint European Geophysical Union (EGU) Town Hall meetings. Harms described several ICDP proposals of potential mutual interest: drilling to decipher long-term sea-level changes and effects; drilling in the Cretaceous Songliao Basin (China); MOLE (multidisciplinary observatory and laboratory experiments) in central Italy targeting a seismically active normal fault; drilling the Alpine Fault in New Zealand; drilling immediately after a major earthquake to study ephemeral properties; drilling Potrok Aike Maar Lake sediments in southern Patagonia, Argentina; and drilling Lake Van sediments in Turkey. Harms gave a status report on two active drilling projects: San Andreas Fault Observatory at Depth (SAFOD); and the Hawaii Scientific Drilling Project. He also presented an update on ICDP membership. He noted that Mexico's membership had expired and was currently being renegotiated, and that without Mexico's support it would not be possible to drill the onshore component (and probably the offshore component) of Chicxulub. Harms mentioned that Russia, Italy, Spain and New Zealand were currently negotiating membership in the ICDP. Harms concluded by describing InnovaRig, a new drill rig constructed in Germany for the earth science community with a unique pipe handling facility that would allow rapid trip times.

Becker asked, in light of Larsen's presentation on potential joint IODP-ICDP proposal evaluation, how the ICDP proposal evaluation process works. Harms explained that proposals in ICDP are reviewed and ranked by a single committee (the Science Advisory Group; SAG). The reviews and rankings are forwarded to the Executive Committee (EC) for acceptance or rejection. He noted that the process was very different from that used by the IODP, especially because the ICDP provides funding to proponents for drilling. Becker asked for clarification on the amount of funding provided by ICDP. Harms explained that typically the ICDP provides 50% funding and proponents must raise the remaining funding from external sources, such as industry. Jenykns asked if the onshore component of Chicxulub is not funded, would it be worthwhile for the IODP to proceed with the offshore component (Proposal 548-Full2). Harms replied that plans would need to be developed that would help make that decision. D'Hondt, however, noted that the objectives of the two projects are somewhat different and not completely linked, and therefore one should not be dependent on the other. D'Hondt inquired if the Mexican government did not provide funding, could funding come from the U.S. National Science Foundation (NSF). Harms replied that Mexico must, in part, provide some of the funding. Referring to the ICDP membership, Larsen asked for clarification of UNESCO as a Member Organization in the ICDP. Harms replied that UNESCO represented developing countries (e.g., Ghana).

Wednesday	7 March 2007	09:00-15:00
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13. Mission implementation

13.1. Summary of SASEC-approved plan

Keir Becker reviewed the highlights of the final version of the document "IODP Missions: Designation and Implementation" (included in the agenda book), which was approved at the November 2006 SASEC meeting, and provided his own initial thoughts on some of the issues. Becker noted that the phrase "on a global basis" had been removed from the definition of a mission to avoid confusion over whether that meant a mission required a global array of sites. Becker also noted, in reference to the overarching principles of mission designation, that a multi-expedition project does not necessarily require a mission. Focusing on the review of mission proposals and mission designation, Becker noted that the SPC will need to decide how the SSEP and SPC should review mission proposals. He suggested that the SSEP review of mission proposals should focus on science aspects, i.e., the relevance of the proposed mission science and how well the mission proposal addresses the goals, definition, and criteria for designation on a scientific basis, but

without consideration of budgetary constraints, since the SSEP is not equipped to address this aspect. Referring to the external review panel for mission proposals, Becker noted that it was not known if this panel would use the same criteria as the SSEP for its review. He added that the SASEC may name the external review panel and define its review criteria at the 22-23 March 2007 SASEC meeting, but he also indicated that the SASEC chair preferred to populate the panel after the mission proposal deadline (1 April). Becker suggested that the SPC review of mission proposals would include an evaluation of all aspects defined by the mission goals, definition and designation criteria. He also suggested that if there are a large number of mission proposals, the SPC could follow its regular review and ranking procedure (including assigning watchdog teams); however, if there were only a few, the SPC might want to consider potential mission designation on a case-by-case basis rather than ranking, as is done with Ancillary Project Letters (APLs).

13.2. Plan mission proposal review procedures at SPC #10

Becker asked for comments and suggestions on the mission proposal review procedures. Referring to the external review panel, Mountain agreed that the panel would need to be populated after the mission proposals were submitted so that a proper range of expertise could be assured. Becker noted that the original concept was that the panel would be populated by very high-level broad-based scientists who could meaningfully review any set of proposals. Mori asked about the time frame for mission designation – does a decision for mission designation need to be made at the August 2007 SPC meeting? Becker noted that the SPC will have the option to not designate any missions in August. Filippelli asked if the proponents of a mission proposal would be allowed to submit a proponent response letter (PRL) to the review by the external panel. Becker was uncertain and noted that the same question could be asked of the SSEP review of a mission proposal. Larsen mentioned that the mission designation document did not specifically allow for PRLs, and that it was his understanding that if a mission proposal was deemed to be unworthy of mission designation, it would be rejected outright. Filippelli stated that it would be nice if mission proposal proponents had the opportunity to respond to reviews. Becker indicated that he would bring this issue up at the March 2007 SASEC meeting.

Camoin asked how the site survey data for a mission proposal would be reviewed. Becker reminded him that the SPC will review the umbrella mission proposal only and that, like a Complex Drilling Project (CDP), the umbrella proposal would not have site survey data; such data would be associated with the component proposals of the mission, and these would be reviewed by the SAS in the normal way, e.g., the Site Survey Panel (SSP) would review the site survey data for the component proposal(s). Byrne commented that there appears to be much overlap between the concepts of mission proposals and CDPs, and asked if one or the other should be eliminated. Becker agreed that this was a valid point and noted that the SPC would return to this topic at its August 2007 meeting. He suggested that, at that time, once the committee has dealt with the first batch of mission proposals the mission proposal review process can begin to evolve. Larsen agreed, but also agreed with Byrne and claimed that the system, with both mission proposals and CDPs, is so complex that many proponents cannot understand the difference, and that the SAS is spending a lot of time dealing with procedures and not science. Ravelo asked if missions were of a higher priority than CDPs within the IODP. Becker explained that a mission could, at least in theory, encompass a CDP and more, and that mission designation implied a commitment of program resources, but that component proposals of a mission would be reviewed via the normal SAS process. Ravelo asked if there would only be one (1 April) call for mission proposals per year. Becker replied that currently the plan calls for one deadline per year.

Referring to the four Overarching Principles of Mission Designation specified in the mission designation document, Mountain asked if the third point, which refers to an integration of “scientific strategies, technological approaches, and management and educational/outreach plans”, also included site surveys. Becker noted that the issue of site surveys is referred to later on in the

mission designation document, and that missions are supposed to improve the likelihood of getting site surveys funded. Mountain suggested that if that is so, such a statement should be moved up front in the document. Becker said that he could suggest that the SASEC insert a phrase about site surveys in the third bullet point. Byrne noted that his understanding was that initially the mission concept was developed to facilitate funding for site surveys, but that now this objective seems to have slipped away, and he again cited the potential for confusion with missions and CDPs existing concurrently. Becker reiterated that mission designation is supposed to be helpful in obtaining site surveys. He also suggested that the earlier nurturing that will occur with missions will also be helpful in this regard. Sawyer asked if the program was comfortable designating a mission, would it also be comfortable if the mission was not accomplished, and suggested that mission designation should imply that the program will do everything possible to ensure the mission is accomplished. Becker noted that this question has been addressed at previous SPC and SASEC meetings. He also noted that there is a provision to change the mission team if necessary to ensure its success.

Becker asked if the committee agreed with the suggested mission review process for the SSEP and SPC as outlined in his presentation. Larsen asked if the SSEP should apply their usual star rating. Becker replied that the star definitions do not apply to missions and suggested that in principle all proposals identified for possible mission designation by the SSEP should effectively be five-star proposals. Mountain asked if there was any expectation for the number of mission proposals to be received at the 1 April 2007 submission deadline. Becker pointed out that at least two of the IODP-sponsored workshops in 2006 (Mission Moho and Continental Breakup) were intending to submit mission proposals. Tada stated that he would like to know more about the type of information that the SPC wished to receive from the SSEP in a mission review, for example a star-type rating system. Becker replied that the SSEP review should focus on science aspects, relevance to the IODP Initial Science Plan (ISP), and how well the mission proposal addresses the criteria for mission designation on a scientific basis. He also suggested that if a large number of mission proposals were reviewed at the same time, perhaps a rating system would be appropriate, but for a small number of proposals the panel could just provide specific comments. Becker also noted that he would attend the May 2007 SSEP meeting and would be able to offer more advice then. Camoin asked if this discussion of mission reviews referred to the mission umbrella proposals only or the component proposals, too. Becker clarified that the mission review process referred only to the mission umbrella proposal. Larsen stated that he presumed a potential SSEP mission proposal ranking system would, like the panel's current star system, provide an absolute ranking. He also stated that presumably it was the responsibility of the SPC to rank missions relatively against one another. Becker commented that an absolute ranking implies that there exists a standard to measure against. Ravelo suggested that it would be helpful if, for example in the case of two mission proposals, the SSEP could give an opinion on which was better. She also suggested that it would be useful if the SSEP could identify proposals already in the system that are similar and relevant to mission proposals. Becker concurred that the SSEP should, in the case of multiple mission proposals, provide a sense of their relative importance.

Nomura suggested that prior to submitting a mission proposal, its theme should be announced so that the SAS and broader scientific community could judge its importance. Becker noted that the group that wrote the mission plan agree with this idea, and that the first of four principles of the Overarching Principles of Mission Designation states that "Missions must address scientific themes of global significance and must originate from, and must be strongly supported by, the international scientific community." Becker also pointed out that the reason for the independent external review panel was to assure that missions would be evaluated by scientists outside of the IODP.

Tada asked if it would be the SPC, and not the SSEP, that would have the role of nurturing mission proposals. Becker replied that if the SPC designates a mission it will be the role of the SPC to monitor its progress. But he also stated that the SSEP can nurture the umbrella mission proposal,

and that any suggestions for major revisions would be useful.

Becker asked the committee if they had any suggestions for the membership on the external review panel, noting that it was not currently known how many will be on the panel. Filippelli asked if Becker was seeking for nominations openly. Becker said the committee should email suggestions to himself. He also noted that he was uncertain if the SASEC will name members to the external review panel at its next (March 2007) meeting, or if it will wait until after mission proposals have been submitted. Larsen commented that the panel will likely need geographical balance with members from Europe, Japan and the U.S. Becker concurred.

14. Science Advisory Structure Working Group (SAS WG) II – develop SPC recommendations

Keir Becker quickly reviewed the general issues raised by the SASEC SAS review working group and in responses to the working group's questionnaire. He then proceeded through each issue and asked the committee for comments. (Issues with discussion are shown below in italics.)

- *Need proactive planning based on milestones to achieve ISP objectives, along with identifying objectives that realistically can't be addressed*
- *Need to involve SPC more clearly in SASEC long-term planning process.*
- *For August 2007 SPC, mission proposal review process and reassessment of proposals remaining at OTF will help start this process.*

D'Hondt agreed that the SPC should be involved in the long-term planning process since the SPC is responsible for selecting the science that could be scheduled. Becker noted that it was not clear how the planning could become more proactive as opposed to reactive. Mori suggested that after the August 2007 SPC meeting there will be much more information that can be taken into consideration. He also suggested that one way to become more proactive was to look for gaps in the science spanned by the active proposals relative to the themes and initiatives specified in the Initial Science Plan (ISP), and look for ways to fill those gaps; for example, with workshops. Becker replied that the tools to address gaps already exist: workshops and program planning groups (PPGs). Byrne commented that the ISP covers such a broad range that there will always be gaps, and he preferred to wait until the August 2007 meeting when the SPC would prioritize and plan for the next five years. Becker noted that the SPC will be involved in revising the ISP, and perhaps what is done at the August 2007 meeting will play into how the ISP is revised.

Mountain, referring to the need for "proactive planning" commented that for an SPC meeting, members get a very thick agenda book, then are asked at the meeting to think long-term in a, for some, jet-lagged mode, which is not effective. He suggested that it might be far more effective if the SPC meetings were restructured to include more work done by small sub-committees prior to the meeting, or perhaps by small groups which meet during the meeting. Ravelo agreed that small groups are more effective at generating good ideas, and that small breakout groups meeting for an hour to try and answer specific questions might be more effective. Becker noted that this has been done in the past for issues that came up during the meeting, and cautioned that this approach could lead to longer meetings. Bekins also strongly supported the idea of small groups or sub-committees and stated that, given a choice between longer meetings versus working in a sub-committee prior to the SPC meeting, she would prefer longer meetings. Camoin also supported the concept of having more work done by small groups and noted that this was similar to the way the SSEP works. He suggested that prior to the SPC meeting the small groups could communicate by email and come to the meeting more prepared to deal with issues. He also agreed that the SPC needed to become more involved in the long-term planning process. Yamamoto was especially supportive of Mountain's idea for small group discussions, noting that some of the Japanese members were not very comfortable speaking in English, and needed extra time to think about the issues. He suggested that it would be easier for Japanese members to communicate in a small group, or by email or video

conference.

Becker asked if thematic sub-groups (such as used by the SSEP) would be a better way for the SPC to review proposals. D'Hondt said he was sympathetic to this suggestion, but he noted that the expertise on the committee was broadly distributed, and it was good to have broader discussions during reviews. Filippelli stated that because the SPC is ranking, and not nurturing, proposals, he was not in favor of the SSEP model of proposal review for the SPC. Larsen agreed and stated that the SPC should be taking input from the SSEP, and incorporating this info into the SPC rankings.

Mori suggested that it would be useful to have a small group look at gaps in proposal pressure and develop some recommendations. Yamamoto noted that the SPC has used small groups previously, for example to deal with the mission concept at the October 2005 SPC meeting. Becker noted that he was in favor of Mori's suggestion to have a small group look at proposal pressure and come up with suggestions. Byrne suggested that another small group might be formed to map out a vision for where the committee thinks the IODP should be in five years. Becker stated that he would bring this suggestion to the March SASEC and Management Forum meetings.

Mori raised a concern over the number of proposals (30-40 by his estimate) that will need to be re-evaluated at the August 2007 SPC meeting, and suggested that perhaps a small group could begin addressing this prior to the August meeting. Becker agreed and suggested that the SPC representatives on the Operations Task Force (OTF) should comprise that small group, and that this group should begin their work at the June 2007 OTF meeting and have a report ready for the August SPC meeting.

- Proposal review process: shortening/simplifying to reduce residence time and inconsistent reviews
- At SSEP level, limit number of revisions

Camoin stated that it is the science, and not the number of revisions of a proposal, that is important, and if the science is good, further revisions should be allowed. Filippelli agreed and mentioned he does not like the idea of Full5, Full6, etc., but that proposals with several revisions do not increase the work load of the SAS significantly, and he was against shutting proponents of these proposals out of the system. Byrne also agreed and stated that he did not want to see the SSEP deactivating an increased number of proposals. D'Hondt noted that when a proposal resides at the SSEP level there is no mechanism for accepting proponent response letters (PRLs) prior to external review, and that this system can lead to a large number of revisions over a few years. Larsen argued that a mechanism was necessary for deactivation of proposals at an earlier stage to deal with proposals that were not on the right track. Schuffert noted that six of the proposals currently residing with the OTF were at a version of Full4 or higher. Ravelo raised a concern about the apparent use of external reviewers to effectively kill a proposal. Becker noted that this was not the intent of external reviews, but that this could happen. Camoin was content with the current system, saying that the SSEP, through their review, can inform the proponent whether their proposal has a good chance to succeed or not. Tada said he thought the SSEP were doing well in this respect. He noted that the SSEP is willing to reject preliminary proposals, and that the SSEP will ask for external review if revisions are not helping. He claimed that one problem is that some proponents begin by submitting a full proposal, knowing that the SSEP will not immediately deactivate it. Sato asked how external reviewers are chosen and suggested it would be best if they were chosen by the SSEP. Tada responded that the SSEP watchdogs suggest external reviewers, but that many of these do not agree to do a review. Sato asked if the proponents also suggest external reviewers. Tada confirmed this was so and stated that the SSEP uses the recommendations of the proponents as a starting point. Eguchi noted that the IODP-MI science coordinators select the external reviewers and rely more heavily on the SSEP recommendations versus proponent recommendations when doing so. Sato argued that the SSEP should choose the external reviewers, not IODP-MI. Becker explained that the IODP-MI office makes their choices based on suggestions by the SSEP. Mori concluded that

there was no real problem with the current system. Becker indicated that he did not sense much support for limiting the number of revisions of a proposal.

- SPC should devise a process to deactivate proposals that consistently rank too low to forward to OTF

Camoin recalled that this issue was discussed previously by the SSEP, which had decided that after about two successive rankings with the proposal not forwarded to the OTF, it was sent back to the SSEP. Becker noted that subsequent SSEP chairs have requested that proposals not be sent back to the SSEP in this situation. Bekins noted that some proponents are very proactive, and that she would personally regret having to deactivate a proposal because of consistent low rankings, because sending a proposal back to the SSEP would mean a major setback. She also pointed out that a mechanism currently does exist for deactivation, which occurs automatically after a proposal has remained inactive for three years (SPC Consensus 0503-5). Becker noted that the SASEC SAS working group recommended changing the deactivation rule to two years. Bekins agreed with this. Tada agreed that low ranking does not necessarily mean poor science, and that other factors such as budget and ship track are involved. Camoin asked if there are examples of proposals that were ranked low several times and then became scheduled. Becker answered that there were several examples of this in ODP time. Becker also agreed with Tada's statement that low rankings does not necessarily imply poor science, and he pointed out that the SPC explains in its reviews that a low ranking does not imply a bad proposal or poor science. Mountain agreed with this. Byrne suggested that a more focused Initial Science Plan would help alleviate the situation. Becker noted that at the August 2007 SPC meeting the committee may be faced with cases where high cost makes implementation of a project impossible. Ravelo commented that she was concerned and frustrated by comments she had heard from several proponents concerning inconsistent reviews and changing watchdogs. Becker noted that one of the reasons the SASEC SAS working group considered reducing the proposal residence time was to diminish the number of inconsistent reviews.

- Disconnect between SAS recommendations regarding site surveys and funding process for surveys

Becker noted that funding for site surveys was completely outside the control of the IODP, and that new budget limits make it unthinkable for the program to have a site survey budget of its own. Mountain cited the increasingly apparent value of 3-D seismic data and suggested that to move forward with bold initiatives would require greater funding for site surveys. He described the impasse that exists in getting site survey funding integrated into the program as a tragedy. Filippelli asked how the need for site survey data was communicated from the SAS to the funding agencies. Mével mentioned that, as the ECORD representative, she was not certain of what happens at the national level, but that the level of funding in Europe is low. D'Hondt explained that in the U.S. system, site surveys must have a stand alone component to move forward, which limits the types of surveys that can be funded. Sawyer added that in the U.S. there is a very long lead time for site surveys. He also noted that, currently, in the U.S. community there was no 3-D seismic ship operating, though there would be one soon, but that there is already a backlog so that a proposal for ship time submitted now might not happen until 2010. He observed that there appeared to be very little connection between what the IODP ranks as important science with what happens at the funding agencies with regard to the funding of site surveys. Allan stated that in the past there was a high correlation between U.S.-funded site surveys and projects that were drilled. He noted that proponents have to demonstrate exciting stand-alone science, in addition to requirements for IODP drilling, before a site survey will be funded. Becker asked Allan if a closer connection between the program and the funding agencies (specifically the NSF) was needed, since the NSF does follow the progress of proposals through the SAS. Allan replied that he thought the situation was pretty good, because the lead agencies have the same background material as the SSEP and SPC. Mével commented that there was room for improvement at the ECORD level. Larsen declared that it is

important that other sources of funding be found, and that there needed to be a clear message accessible to everyone about which projects are highly ranked and which projects need site surveys. Stephen noted that it might be possible for a consortia of oil companies to provide funding but that a closer connection between industry and the IODP was needed.

Bekins suggested that the concept of the SPC holding bin, for proposals nominally forwarded to the OTF, but held back because of deficiencies in their site survey data, should be formalized to give it more meaning. Sawyer acknowledged that the SSP may have misunderstood the concept of the holding bin, but was supportive if the intention of the holding bin was to help obtain funding for site surveys. He also noted that the SSP was sometimes concerned that site survey requirements may be too stringent and could hurt the likelihood of a proposal going forward. Becker agreed that Bekins' suggestion of formalizing the holding bin was a good idea.

- Panel sizes and terms of membership

- Allow for 3 or 4 year terms on SPC and SSEP at discretion of PMOs?

- Following SASEC model, limit # of observers to no more than half the number of panel members.

Filippelli stated that an overarching question was, while reducing panel size or limiting the number of observers may reduce costs for the IODP and Program Member Offices (PMOs), can the money saved go towards operations, or scientific research associated with expeditions. Allan replied that there were three ponds of money, for grants, participation and operations, and a decrease in participation costs would mean more money for grants and operations. Allan also acknowledged that the number of observers at a meeting such as this one may seem large, but one needs to consider the number of meetings going on (a SASEC working group, mini OTF, Panel Chairs, and PMO meetings were all held in conjunction with the SPC meeting). He also pointed out that, relative to the days of ODP, one had to expect three times the number of observers given the number of national and consortia organizations involved. He also emphasized that SAS meetings were open to the public, and that it was up to the national organizations to voluntarily send fewer observers.

Mével noted that the ECORD review committee found that the IODP has a large amount of administration. She agreed that reducing meeting costs was a good thing, but that the Memoranda of Understanding (MOU) specify the number people that can be sent to a meeting. Schuffert noted that recent budget guidance for the United States Science Support Program (USSSP) from the NSF fell far short of what was asked and hoped for, and that any potential savings from reducing participation at SAS meetings could be used for supporting other science. Becker noted that the SASEC working group was not interested in going too far with SAS cuts. Camoin agreed that allowing for 3 or 4 year terms on the SPC and SSEP at the discretion of the PMOs was a good idea, and would help to ensure a correct balance of expertise.

- SAS communication - between panels, among panels/IODP-MI/IOs and among panels/PMOs

- Working group to produce two-page SAS summary for new members

Bekins like the idea of a briefing document for new members and suggested it include a section on how to read the site summary forms. Mountain stated that the site classification information from the Site Survey Panel (SSP) is very timely for the SPC, and suggested it would be helpful to distill all site survey classifications into one spreadsheet. Becker noted that the SASEC working group also considered advancing the data submission deadline so that the SSP meetings could take place earlier relative to the SPC meeting. Sawyer agreed that this would be helpful, and that it would be possible to produce the sort of document suggested by Mountain.

- A possible education/outreach panel?

Mountain commented that the skill set for education and outreach (E&O) was unevenly distributed in the SAS, and therefore the SAS should at most offer only advice on E&O. Ravelo stated that the

United States Science Support Program (USSSP) imagined that an outreach panel would be populated primarily by people outside the SAS, e.g., educators, journalists, etc. Filippelli noted that the mission concept included an outreach component.

- *SSP Matters*

- *There have also been suggestions that SSP be folded into SSEP*

D'Hondt preferred separate panels, noting that the Site Survey Panel (SSP) looks at details of the data, whereas there are not many people on the Science Steering and Evaluation Panel (SSEP) with the necessary skill set to do that kind of assessment. Becker commented that the intention was that site survey data should be folded into the evaluation process a lot earlier. Mountain described the SSP as quite focused, and suggested it would not fit together well with the SSEP, and that a combined meeting would be inefficient. Byrne noted that this idea has been discussed several times by the SSEP and suggested that there was some confusion about the role of the SSP, in addition to questions about how the SSEP can evaluate science without knowing the site survey data status. Allan observed that he had attended meetings by all the panels and felt they worked very well; however, he also suggested that the weakness in the SAS evaluation of proposals is that it is not done within the biggest context of the program. For example, there was no relationship to fiscal reality, or to the underlying data that supports a proposal (e.g., a target that is difficult to see). He stated that the SSEP does not necessarily notice this type of detail, and suggested that a combined evaluation by the SSP and SSEP would give a better basis for evaluation of proposals. He described the current situation as a 'disconnect'. Schuffert suggested that the problem is more fundamental because the set of proposals reviewed by the SSP and SSEP are typically very different. Sawyer concurred, but was open to experimenting with a joint SSP and SSEP meeting. He felt there was a perception that the SSP is merely a gatekeeper of the Site Survey Data Bank (SSDB), but feels that the SSP should be more involved in science assessment. He did acknowledge that a coincident proposal submission and data submission deadline could be problematic. Mountain noted that an SSP meeting requires a venue with a high bandwidth internet connection and wondered if this might limit the number of possible meeting locations for a joint SSP and SSEP meeting. Sawyer admitted that this had to be considered, but that most major universities and corporations would be capable of providing adequate facilities. Larsen noted that all IODP-MI science coordinators attend the SSEP meetings, and that one attends the SSP meetings, and indicated that they can be considered as a source of information about data status. He indicated that a joint meeting would be a very big meeting. D'Hondt suggested that, as an alternative to joint meetings, the SSP watchdogs should communicate with the SSEP watchdogs prior to a meeting. Bekins indicated that this could apply to the SPC as well, and that talking to the SSP watchdogs would be useful.

15. IODP site surveys – revisit SPC#8 discussion

Keir Becker noted that this issue was discussed in the preceding agenda item.

16. 2007 Management Forum II – develop SPC recommendations

Keir Becker asked for comments on the three questions posed to the Management Forum by the president of IODP-MI, Manik Talwani.

(1) If SOC funding is severely reduced, where should budget cuts be applied?

Becker's suggested response was that it is not clear that the SPC is equipped to answer this question meaningfully. He noted that while the question addressed SOC funding, both SOC and POC budgeting had to be considered. He further suggested that to meaningfully answer the question required a cost-benefit analysis, which the SPC is not equipped to do, and an understanding of the basis for which Phase II budget cuts are to be applied. He asked the committee if it could devise a process to answer the question meaningfully at the August 2007 SPC meeting, when the SPC would be asked for a cost-benefit analysis of existing proposals with the OTF.

Bekins agreed that SOC's should not be broken out from POC budgeting because, for example, drilling without being able to afford to analyze a core makes no sense. Byrne agreed with all of Becker's suggestions and with Bekins' comment, but asked if the Management Forum will proceed at their late March meeting without waiting for input from the SPC in August 2007. Becker replied that he would take the suggested response to this question to the 22-23 March 2007 SASEC meeting for discussion. Mountain asked if the SPC was expected to do the cost-benefit analysis on its own. Becker answered that this question needed to be answered by the Management Forum.

(2) Where should we look for additional funding and what accommodations to the IODP model would be necessary?

Becker cited the example of the Expedition 313 (New Jersey Shallow Shelf), towards which the ICDP contributed funding for highly rated IODP/ICDP science, with no accommodations to the IODP model. Pedersen suggested that to tap new sources of funding the program needs to highlight the societal relevance of the science, such as reduction of CO₂. Mountain stated he was concerned that both the *Chikyu* and U.S. SODV may be off contract at times, not raising funds for the IODP, and suggested that the SPC should make a statement that this possibility was abhorrent. Larsen said that the New Jersey example was good, but suggested the SPC should discuss what accommodations to the IODP model might work. Becker suggested that one had to read between the lines to think what might be meant by "accommodations", for example, allowing industry to charter a drill ship under the program, but this, he pointed out, was deemed by the NSF after the last SASEC meeting to be unacceptable. D'Hondt suggested that the ICDP model, where proponents have to raise part of the funding for an expedition, could be considered. Byrne noted that he had trouble understanding what the question really means. He suggested that, because the magnitude of additional funding required was in the order of \$10M, the options are very limited, and that industry was the only realistic option. Thus, the question reduces to how the program can accommodate industry. Becker noted that the program was already trying to do this with the Industry-IODP Science Program Planning Group (IIS PPG), but reiterated that industry charter of *Chikyu* or the U.S. SODV would have to be off-contract only. He wondered if a middle ground could be found, for example, if industry could contribute to the cost of observatories for 589-Full3 (Gulf of Mexico Overpressures II) then this project could go forward. Allan stated that he saw no problem with this type of industry involvement (e.g., third-party tool development), but what would not be acceptable would be a situation where only industry would get access to the data, as the rights of access are specified in the Memoranda of Understanding.

Becker noted that another kind of accommodation that has been mentioned was the concept of a fast-track review process for proposals from industry, but that this raised questions about the scientific integrity of the program. Mountain agreed that if the scientific integrity of the program was maintained, this idea could be considered, but otherwise he was against it. Katz suggested looking at potential overlap in interests between industry and the IODP, for example, stratigraphic information is very valuable to industry, whereas the program typically wants other information from drill sites.

Stephen raised the issue of site survey data and noted that sometimes these data are proprietary to a company, and therefore a mechanism was required to deal with this. Katz noted that the program can, and already has, dealt with proprietary site survey data. Larsen pointed out that the new draft data confidentiality policy, which appears in the agenda book, specifies that all data required to document an expedition will eventually become public. Becker noted that in the past the data bank could handle proprietary data. Sawyer pointed out that a mechanism exists with the new digital Site Survey Data Bank. Larsen continued to explain that in the new draft policy, data can be proprietary for planning purposes, but the SAS have stated that once an expedition is finished, it wants the data to become public. Becker suggested that allowing industry site survey data to remain proprietary is

an accommodation that needs to be made. Mountain stated that data that go into planning does not need to be made public, only the data that result from the expedition. Larsen asked for comments from the committee on the draft data confidentiality policy. Allan commented that releasing industry proprietary data could jeopardize the well-being of the program. Becker interjected that this was a lead agency-central management organization (CMO) issue. Mountain reiterated that drilling products belong in the public domain, but data used to frame the scientific justification for site locations could remain proprietary. Sawyer suggested that if understanding the well data did not require the site survey data for interpretation, then it would not be necessary to release the site survey data. On the other hand, if, for example, the seismic data were necessary to place the well data into context, then the seismic data should be made publicly available. Becker wondered who would make this decision, on what basis, and when. Sawyer suggested that the decision had to be made early, but otherwise was not sure who would decide, or on what basis. Becker suggested that an exception for proprietary industry data could be inserted into the data confidentiality policy. D'Hondt agreed but echoed Sawyer's comment that it can be important to have access to data for integration of the results, and that declaring all industry data as proprietary would create an unequal playing field. Becker suggested that he could point out this issue to the SASEC at their March 2007 meeting as a possible accommodation that could be made to encourage industry involvement. He noted that if the program wants to be able to use industry proprietary data, this issue will need to be addressed.

(3) What role does SAS want to play in raising additional funds?

Larsen asked for clarification on the kind of funds referred to in the question. Becker answered that he did not know, and explained that the question came from the IODP-MI president. Becker suggested that the question was asking for any good ideas to help increase the funding base. Stephen pointed out that the IIS PPG was already addressing the issue of funding from industry. Becker agreed that trying to increase the involvement of industry was already included in the IIS PPG's mandate, so in that sense the SAS is already addressing this question. Byrne suggested that the SAS needs to be involved in developing new sources of funding for the program. Becker agreed that if a new source of funding could be identified, the SAS should be prepared to be involved in terms of explaining the scientific objectives of the program.

17. Update on Marine Protected Areas

Hiroshi Kitazato presented a status report on Marine Protected Areas (MPAs). He presented the findings of a July 2006 U.S. Department of the Interior report on the effect of oil and gas exploration and development in the Mississippi Canyon area of the Gulf of Mexico. He reported that drill mud cuttings were dispersed up to 500m from the drill site, and that deposition of the cuttings totally swept out epifaunal organisms. Kitazato mentioned a report which proposes MPAs in the Pacific Ocean designed to safeguard biodiversity in the Clarion-Clipperton Fracture Zone (CCZ) in the face of nodule mining. He noted that this report recommends establishing a very large MPA, spanning the entire width of the CCZ and encompassing 10° of latitude. He also mentioned that this report would be presented at the 61st United Nations (UN) General Assembly. Kitazato mentioned that the UN Antarctic Treaty does not significantly address environmental matters, but that recently the UN and lobby groups have started to discuss an environmental protection plan. Kitazato noted that "Science Priority Area" is a newly proposed term to describe areas within which scientific activity is acceptable, and distinguished from commercial activities. He indicated that the number of MPAs within and beyond a countries exclusive economic zone (EEZ) is expected to increase, and recommended that the IODP develop a "code of conduct".

Mével asked who decides where an MPA is established. Kitazato replied that it was under the control of the UN, and that the deadline for establishing an MPA was 2012. Allan suggested that any SPC consensus statements addressing environmental issues should build on past statements by

the SPC (Motion 0411-1) and the Science Planning and Policy Oversight Committee (SPPOC) (Consensus 0412-4), which refer to the IODP Health, Safety and Environment Policy. Becker commented that a code of conduct already exists, and thus a new code was unnecessary. Larsen asked if this policy was in an easy-to-find location. Katz replied that the SAS statement was available (See "IODP Environmental Principles" posted at <http://www.iodp.org/program-policies>), but that it was generalized for the program as a whole. He noted that each operator would have its own statement. Allan noted that the USIO is currently developing an environmental impact statement for the U.S. SODV, with a draft available later in March 2007. He also noted that comments from the public were welcomed.

18. Other business

1. Gilbert Camoin requested a discussion on the prioritization of proposals remaining with the Operations Task Force (OTF) at the August 2007 SPC meeting.

Becker explained that the June OTF meeting would result in a package of information for each of the proposals at the OTF, which would include the reasons why they are still awaiting implementation and an order of magnitude comparison of costs required to implement. Armed with that information, the SPC would need to re-review the science of each proposal. This would include distribution of a CD of proposals as for a typical SPC review meeting, an assignment of watchdogs, and a 15-minute presentation and discussion of each proposal, which would include OTF issues. The entire set of proposals at the OTF would then be prioritized in terms of which were the most important to implement. Becker noted that the review would not include those which are already scheduled. Mori suggested grouping the proposals either by geographic region or science theme. Becker countered by suggesting that grouping could be by issues raised at the OTF meeting, or by science theme.

Janecek reminded the committee that some of the proposed operations may require more vetting than others. He noted that at its August 2007 meeting, the SPC would be approving a schedule for FY2009 and a conceptual schedule for FY2010. He suggested that if, for example, the U.S. SODV was in the Indian Ocean, there was no need to consider proposals in the Atlantic. Becker stated that he wasn't planning on reviewing proposals based on potential ship tracks. Filippelli said that decisions will need to be based on where the vessel will likely be, and noted that this was different from the way the SPC had operated previously. He suggested that doing reviews at the August 2007 meeting in the same way as those done at the present meeting may not be the most effective way to consider both science and fiscal aspects. Becker stated that he preferred to group the reviews by science theme. There was general agreement among the committee members. Becker suggested assigning larger thematic watchdog groups, and giving each group all the proposals on the theme. Mori suggested considering themes, cost, and relation to the IODP Initial Science Plan (ISP). Becker reiterated the need to balance cost, including logistical issues, with science. Larsen noted that the initiatives in the IODP ISP also needed to be considered, in addition to the three themes described therein. Byrne recommended doing the reviews proposal by proposal, as currently done at SPC review meetings, but spending less time (15 or 20 minutes) on each. Mountain suggested three thematic working groups, and each would give an overview of how their group of proposals address the ISP theme. Becker noted that there would still need to be a lead watchdog and presentation for each proposal. Mori suggested going through each proposal first, then dividing the entire set into three groups and charging three working groups to prioritize each proposal in that group. Janecek noted that much of the information that will be required by the SPC will have to come from the OTF and the operators, and asked how this could be done for approximately 25 proposals. Becker explained that the three SPC representatives at the June 2007 OTF meeting would leave that meeting with the required information, and thus the information would be available to the SPC two months in advance of its August meeting.

Becker summarized the **working model for the re-evaluation of proposals remaining at the OTF to be conducted at the August 2007 SPC meeting:**

The three SPC representatives to the OTF would obtain information on all proposals remaining at the OTF during the June 2007 OTF meeting. The representatives would compile and distribute this information to the SPC as soon as possible after the OTF meeting. At the August 2007 SPC meeting, watchdogs would be assigned to thematic-based working groups. Each proposal would be presented to the entire committee, after which each thematic working group would meet in breakout sessions to prioritize the proposals within its group. Prioritization would be based on an assessment of the importance of the science, the need to fill gaps within the theme, and budgetary considerations. The prioritizations by the thematic working groups would then be merged, possibly by ballot.

Janecek asked if an Implementing Organization (IO) representative would be required for each breakout group. Becker replied that depended on whether the advice received at the June OTF meeting changes after the OTF meeting. He suggested that IO representatives should at least be present to answer questions on issues that may arise. Larsen suggested that it would be very useful if each working group could map out in a holistic way what needs to be accomplished in order to achieve the ISP goals. Becker commented that a half day may be required for the breakout sessions.

Other business:

2. Greg Mountain asked how proactive members should be with their home institutions when seeking additional funding for the IODP. Mountain noted that he had been advised by Dennis Kent (Department of Geological Sciences, Rutgers University) not to advocate on behalf of the IODP at the Congress level, though it was acceptable to do so as a private citizen, or on behalf of one's home institution. Ravelo stated that one option (for U.S. members) was to express concerns directly to the National Science Foundation (NSF); another was to write and request that their senator sign a letter requesting an increase in funding for the NSF.

19. Review of motions and consensus items

Keir Becker presented a tribute to Mike Underwood for his service as a SSEP co-chair. There was some debate on the number of stars to assign for his co-leadership, but eventually the committee reached a consensus and awarded five. Becker also thanked Jeff Schuffert for his service as an IODP-MI science coordinator and ace SPC minutes scribe. Tributes to departing SPC members Hiroshi Kitazato and Ritsuo Nomura were presented by Hiroyuki Yamamoto and Harue Masuda, respectively. Becker thanked Harue Masuda and her assistants for hosting the meeting.

SPC Consensus 0703-16: The SPC thanks Mike Underwood for two years of dedicated and highly effective service as co-chair of the Science Steering and Evaluation Panel (SSEP). We really appreciated his stellar (*****) co-leadership of the SSEP proposal review and nurturing process, as well as his frank and insightful contributions on new IODP matters like missions. We wish him even longer and more fulfilling service - and unlimited time at sea - as a key member of the NanTroSEIZE project management team.

SPC Consensus 0703-17: The SPC thanks Jeff Schuffert for many years of stellar service as an IODP-MI science coordinator, particularly for producing such fine SPC minutes since the beginning of the IODP. Those minutes are an invaluable record of SPC proceedings. We were disappointed at the news after our last meeting that he had moved on from the IODP-MI, but we are glad to see him remaining in the IODP community at JOI/USSSP.

SPC Consensus 0703-18: The SPC thanks Hiroshi Kitazato for his service to the committee. He has much expertise in geology, paleontology, microbiology for living foraminifer, and even deep

sea biology. His extraordinary efforts have reminded us that it will be important to consider environmental issues in carrying out a marine science program such as the IODP. The real talent is moving out from the SPC, but we believe that he will keep active in the science community.

SPC Consensus 0703-19: Professor Nomura has studied paleoceanography using benthic foraminifera. His research career started from reviewing the classification of benthic foraminifera, Cassidulina Group, and he became a world-famous paleontologist by successful re-classification of these based on detailed observations of the skeletons. He was an onboard scientist of ODP cruises, from which he contributed greatly to the Tertiary paleoceanography of the Indian Ocean. His style of science is always based on the huge data sets of foraminifera. In his career, he is a serious person. He looks modest, like a typical Japanese; however, he turns into a brave hunter when he finds a target in his research work. His recent interest is in the anthropogenic disturbance on the natural environment, and he is particularly active in the analyses of environmental change of coastal and estuary watersheds, such as Osaka Bay, Lakes Naka and Sinji, which are located nearby some highly populated areas in Japan. He is a mysterious person, and no one knows very much about his private life. Based on his self-evaluation, he is a tedious person among his family, because he does not have any hobbies or pleasures other than his own work! Now that he is leaving the SPC, he will no doubt be a boring person, since he will have too much time, which for the last three years he has devoted to the IODP. We are sad that he is leaving, but we can hope that he will come back to the IODP community in the near future. Until then, we wish him great enjoyment with his own time, not only for research work but also with his family.

SPC Consensus 0703-20: The SPC thanks Harue Masuda and Muneki Mitamura of Osaka City University for hosting our 9th meeting at the Osaka International House and a fascinating field trip to the regional fault systems. We also thank Issa Kagaya, Yui Masuda, Manami Ono, and AESTO for outstanding support of the meeting. We thoroughly enjoyed the cosmopolitan city of Osaka and hope to return here for future IODP meetings.

20. Future meetings

20.1. Liaisons to other panels and programs

The committee identified its liaisons for the upcoming round of SAS panel meetings as follows: SSEP - Becker and Mori; EPSP - Becker; SSP - Behrmann; STP - Zhou; EDP - Becker; IIS-PPG - Byrne.

20.2. 10th and 11th SPC meetings

20.2.1. 27-30 August 2007, Santa Cruz, U.S.A.

Barbara Bekins announced that the original proposed location for the tenth SPC meeting (Menlo Park) has been changed to Santa Cruz, California. She noted that a block of hotel rooms have been reserved at the Santa Cruz Coast Hotel, located on the beach and close to downtown. A field trip, led by Ivano Aiello, to look at fluid flow evidence in recent and Franciscan formation rocks, coast outcrops and the Santa Cruz Mountains, was planned for Sunday (26 August).

20.2.2. March 2008, Barcelona, Spain

Gilbert Camoin announced that the ECORD council has approved Barcelona, Spain as the location for the eleventh SPC meeting. Tentative preferred dates are the week of 10-14 March 2008, with the second choice being the week of 3-7 March. A field trip is planned to visit submarine slides around Barcelona.

Becker adjourned the meeting at 14:36.