

Science Advisory Structure Executive Committee

10th Meeting, 14-15 June 2010

Kyoto, Japan

Science Advisory Structure Executive Committee (SASEC)

Shoji Arai	Kanazawa University, Japan
Keir Becker	University of Miami, USA
Se Won Chang (observer)	Korea Institute of Geoscience and Mineral Resources (KIGAM), Korea
Jan Willem de Leeuw	Royal Netherlands Institute for Sea Research (NIOZ), The Netherlands
Gabriel Filippelli (non-voting)	Indiana University-Purdue University Indianapolis, USA
Susan Humphris	Woods Hole Oceanographic Institution, USA
Benoit Ildefonse	Université Montpellier II, France
Kenji Kato	Shizuoka University, Japan
Hiroshi Kitazato	Japan Agency for Marine-Earth Science and Technology (JAMSTEC), Japan
Terry Quinn	University of Texas at Austin, USA
Rasik Ravindra*	National Centre for Antarctic and Ocean Research, India
Maureen Raymo (chair)	Boston University, USA
Jianzhong Shen* (observer)	Ministry of Science and Technology (MOST), China
Kiyoshi Suyehiro (non-voting)	IODP Management International, Inc., Tokyo Office, Japan
Yoshiyuki Tatsumi	Institute for Research on Earth Evolution, JAMSTEC, Japan
Chris Yeats (observer)	Australian Resources Research Centre, CSIRO, Australia

*Unable to attend

Liaisons, Guests, and Observers

Nao Ahagon	Japan Drilling Earth Science Consortium (J-DESC), Japan
Jamie Allan	National Science Foundation (NSF), USA
Rodey Batiza	National Science Foundation (NSF), USA
Brad Clement	US Implementing Organization (USIO), USA
David Divins	Consortium for Ocean Leadership, USA
Robert Gatliff	ECORD Science Operator, British Geological Survey, UK
Christopher Harrison	University of Miami, USA
Shinji Hida	Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan
Hiroshi Kawamura	IODP Management International, Inc., Tokyo Office, Japan
Denise Kulhanek	IODP Management International, Inc., Tokyo Office, Japan
Hans Christian Larsen	IODP Management International, Inc., Tokyo Office, Japan
Charna Meth	US Science Support Program (USSSP), The Consortium for Ocean Leadership, USA
Catherine Mével	ECORD Managing Agency (EMA), Institut de Physique du Globe de Paris (IPGP), France
Hiroko Osawa	IODP Management International, Inc., Tokyo Office, Japan
Ian Ridley	National Science Foundation (NSF), USA
Jeff Schuffert	US Science Support Program (USSSP), The Consortium for Ocean Leadership, USA
Shingo Shibata	Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan
Deborah Smith	National Science Foundation (NSF), USA
Isozaki Yoshio	Center for Deep Earth Exploration (CDEX), JAMSTEC, Japan

Science Advisory Structure Executive Committee

10th Meeting, 14-15 June 2010

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EXECUTIVE SUMMARY (v1.3)

1. Introduction

1.5. Approve meeting agenda

SASEC Consensus 1006-01: SASEC approves the agenda for its tenth meeting on 14-15 June 2010 in Kyoto, Japan.

1.6. Approve last meeting minutes

SASEC Consensus 1006-02: SASEC approves the minutes of its ninth meeting with a minor correction on 18-19 January 2010 in Seoul, Korea.

3. Annual Program Plan

3.3. Discussion including scheduling issues

SASEC Motion 1006-03: SASEC recognizes the exceptional circumstances associated with the possibility of extending proposed drilling at the SuperFast site. Hole 1256D is the first drill hole to sample a complete section of intact upper oceanic crust down to gabbros and is one of only two deep reference holes into intact oceanic basement. It penetrates deeper in the ocean crustal “stratigraphy” than any other site, with the bottom of the hole residing in the dike-gabbro transition. Extending the cruise opens up the possibility of a ~300 to 400 m deepening of Hole 1256D and the sampling of cumulate gabbros in intact ocean crust for the first time. This would be a milestone achievement for IODP, and could have very high scientific impact. In addition, obtaining thermal data at this site will inform plans to drill to the Moho in the next program, thereby building our knowledge base for the future. While not willing to take time away from the expeditions currently scheduled for FY11, SASEC requests IODP-MI to continue to explore the feasibility of extending drilling at SuperFast for an additional 2 weeks beyond what is called for in the draft FY11 APP, and report back to SASEC on its findings as soon as possible.

Becker moved; Quinn seconded; 9 in favor (Arai, Becker, de Leeuw, Humphris, Kato, Kitazato, Quinn, Raymo, Tatsumi); 2 non-voting (Filippelli, Suyehiro); 1 conflicted and not present in the room for this agenda item (Ildefonse)

SASEC Motion 1006-04: SASEC approves the FY11 annual program plan presented at its June 2010 meeting, with the understanding that some budgetary matters remain to be finalized. SASEC emphasizes the importance of achieving the IODP science goals outlined in the FY11 APP and recommends approval by the IODP-MI Board of Governors.

Becker moved; Humphris seconded; 9 in favor (Arai, Becker, de Leeuw, Humphris, Kato, Kitazato, Quinn, Raymo, Tatsumi); 2 non-voting (Filippelli, Suyehiro); 1 conflicted and not present in the room for this agenda item (Ildefonse)

7. Program renewal

7.3. Discussion of Science Plan draft

SASEC Action Item 1006-05: All members of SASEC (as well as concerned stakeholders in the room) will read the draft Science Plan and forward their comments (general, specific,

holistic, scientific, thematic, stylistic, etc.) to SASEC Chair Maureen Raymo, cc'd to SPWC liaisons Hans Christian Larsen and Susan Humphris, by Friday, June 25th, 2010.

Raymo, Larsen, and Humphris will collate and summarize these comments (identities removed) and draft a letter of guidance to SPWC from SASEC.

This draft will first be circulated to SASEC for comment and approval (fast turnaround) with the aim of providing constructive and useful feedback to SPWC by Friday, July 9th at the latest.

SPWC is anticipated to provide a revised version of the Science Plan for community comment and evaluation by August 1st. Community input will be accepted until September 14th.

7.4. Timeline and procedure for Science Plan review

SASEC Action Item 1006-06: SASEC will send names of candidates for the "Blue Ribbon" Committee in the next two weeks to Maureen Raymo and IODP-MI. The goal is to identify a small number of prestigious scientists who would be willing to look at, and give SASEC feedback on, the next significant revision of the Science Plan. This activity is anticipated to occur in November.

7.5. Call for proposals for new program (timing/format)

SASEC Consensus 1006-07: SASEC asks SPC to develop a plan for reviewing the pool of proposals currently within SAS and identifying those high priority proposals, with respect to the current ISP and the Science Plan for the new program, which will be considered for the first phase of scientific ocean drilling in the new program. SPC should finalize the plan at their August 2010 meeting and engage SSEP in this review process during their November 2010 meeting. SASEC would like to review the results of this proposal transition process at their January 2011 meeting.

9. Reports of committees assessing models for post-2013 proposal evaluation process

9.4. SASEC recommendations to IWG+ for transitioning to new SAS structure

SASEC Action Item 1006-08: A subcommittee of Keir Becker, Jan Willem de Leeuw, Gabe Filippelli, and Shoji Arai await guidance from IWG+ and the Second Triennium Review Committee on drafting of new SAS committee mandates. This action will occur over the course of the next few months with draft mandates circulated to SASEC as the time frame defined by IWG+ demands but certainly by the January 2011 SASEC meeting.

10. Workshops in Fiscal Year 2011: Budget and Process

SASEC Consensus 1006-09: SASEC endorses the invitation by SPC to the International Continental Scientific Drilling Program (ICDP) to create a Joint Program Planning Group focused on increasing scientific understanding of the role of past climates in influencing hominid evolution.

SASEC Consensus 1006-10: Based on discussion of potential workshops and scoping groups for FY11, SASEC makes the following recommendations:

- 1) A scoping group will be formed to refine Proposal 672-Full3 Baltic Sea Basin Paleoenvironment as suggested by the SPC Chair.

- 2) Requests for workshop proposals be solicited from the scientific community for FY11 that have an emphasis on scientific topics that prepare for the new scientific ocean drilling program.

11. SASEC recommendation to the Board of Governors regarding planning through end of program

11.3. SASEC discussion and conclusion

SASEC Consensus 1006-11: SASEC has reviewed the alternative drilling scenarios for the remainder of IODP through 2013 that have been developed by SPC/OTF in response to SASEC Consensus 1001-14, and thanks them for the considerable effort they have put into completing this task. While SASEC understands there are transit penalties in going to the Indian Ocean, the committee strongly endorses the inclusion of drilling of Proposals 605-Full2 Asian Monsoon and 552-Full3 Bengal Fan before the end of the program. These address high priority scientific objectives of the Initial Science Plan (ISP) and important societal problems.

The recommended schedule for the *JOIDES Resolution* for FY12 should be based on completing the ISP in the best way possible.

14. Review of action items, motions, and consensus statements

SASEC Consensus 1006-12: Dr. Kenji Kato is a microbial ecologist and has mostly no geoscience educational background in his career. However, he has made invaluable contributions to iPC, SPC, and SASEC through his thoughtful comments and wise counsel. During these experiences, he has become an excellent geoscientist in addition to his biological background. Today Kato-san graduates from SASEC, but we hope that he will promote microbiological work in IODP and develop deep biospheric collaborations with geoscientists.

SASEC Consensus 1006-13: The SASEC deeply thanks Yoshiyuki Tatsumi for his 3-year service as a key member of our committee. Tatsumi-san (Yoshi), based on his profound and unrivaled understanding of the subduction factory and related Earth evolution, has been leading the IODP community for these years. We sincerely look forward to seeing his further contributions to the international ocean drilling program beyond IODP, especially in restructuring its new international framework, as well as to successful completion of Izu-Bonin-Mariana deep drilling.

We also deeply thank Tatsumi-san for organizing our meeting in this worldwide historic city, Kyoto, where he started his brilliant career when he was a student at Kyoto University. We all are enjoying the whole of the fantastic atmosphere of Kyoto, produced during its long history.

Science Advisory Structure Executive Committee

10th Meeting, 14-15 June 2010

Kyoto, Japan

DRAFT MINUTES v1.1

Monday	14 June 2010	9:00-17:30
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1. Introduction

1.1. Call to order and opening remarks

The Science Advisory Structure Executive Committee (SASEC) chair Maureen Raymo called the meeting to order at 09:00 and welcomed everyone to the meeting.

1.2. Introduction of participants

Maureen Raymo introduced Shoji Arai, who is the next vice-chair of SASEC. She then asked all meeting participants to introduce themselves.

1.3. Welcome and meeting logistics

Local meeting host Yoshiyuki Tatsumi welcomed everyone to Japan and gave some basic logistical information for the meeting. He introduced the people who could answer questions or help with logistics issues.

1.4. Rules of engagement (Robert's Rules, Conflict of Interest policy, etc.)

Maureen Raymo began by noting that the SASEC terms of reference are in the agenda book. She then introduced how the meeting would be run. She went over some salient points of Robert's Rules of Order, including that members should take turns speaking, no member should speak twice until everyone has had a chance to speak, each person should raise his/her hand before speaking, members should not speak in the background, and everyone should speak slowly and clearly. She emphasized the last point, noting that this is an international meeting.

Raymo indicated that the full text of the Conflict of Interest (CoI) policy is found in the agenda book. She noted that all actual or potential CoIs must be declared. SASEC members declared the following CoIs regarding potential discussions:

Name	Declaration
Becker	Former proponent of Proposals 677-Full Mid-Atlantic Ridge Microbiology and 545-Full3 Juan de Fuca Flank Hydrogeology; Proponent of Proposal 734-APL Cascadia Accretionary Prism CORK
Ildefonse	Co-chief for Proposal 522-Full5 Superfast Spreading Crust and co-signatory of the letter to SASEC regarding addition of 14 days to Expedition 335 Superfast 4
Raymo	Proponent of Proposals 595-Add3 Indus Fan and Murray Ridge and 768-APL Gulf of Mexico Paleoclimatology
Suyehiro	Former proponent of Proposal 603C-Full NanTroSEIZE Phase 3: Plate Interface
Tatsumi	Proponent of Proposals 695-Full2 Izu-Bonin-Mariana Pre-Arc Crust, 696-Full2 Izu-Bonin-Mariana Deep Forearc Crust, 697-Full3 Izu-

	Bonin-Mariana Reararc Crust, and 698-Full2 Izu-Bonin-Mariana Arc Middle Crust
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1.5. Approve meeting agenda

Maureen Raymo asked if there were any suggested changes to version 1.4 of the meeting agenda. There were no changes, and the agenda was approved by consensus.

SASEC Consensus 1006-01: SASEC approves the agenda for its tenth meeting on 14-15 June 2010 in Kyoto, Japan.

1.6. Approve last meeting minutes

Maureen Raymo noted that she had a correction to the minutes from the last meeting (January 2010). She indicated that she had an additional CoI with Proposal 768-APL Gulf of Mexico Paleoclimatology. Raymo asked if there were any other suggested changes or corrections to the draft minutes from the January 2010 SASEC meeting. No further changes or corrections were suggested; therefore, the minutes were approved as amended by consensus.

SASEC Consensus 1006-02: SASEC approves the minutes of its ninth meeting with a minor correction on 18-19 January 2010 in Seoul, Korea.

1.7. Review of items approved since last meeting

Maureen Raymo noted that no items had been approved since the January 2010 SASEC meeting.

2. Science Planning Committee Report

Science Planning Committee (SPC) chair Gabe Filippelli gave the SPC report. He noted there had been one SPC meeting (March 2010) since the last SASEC meeting. He reminded meeting attendees that SASEC charters SPC to focus on the annual process of review and ranking of proposals and to recommend the annual engineering plan. He noted that all other Science Advisory Structure (SAS) panels report through SPC.

Filippelli presented the following SPC consensus items and motions of interest to SASEC:

SPC Motion 1003-06: The SPC approves the nomination of Yasufumi Iryu as the new co-chair of the Science Steering and Evaluation Panel (SSEP).

Camoin moved; Peterson seconded; passed by consensus

SPC Consensus 1003-03: The SPC recognizes an urgent need to develop adequate borehole monitoring capabilities for future ocean drilling activities, the lack of which currently hamper highly meritorious proposals that address key goals of the IODP science plan. Particularly, capabilities for fluid, biosphere, seismic, and displacement monitoring are central to the future of the program. Borehole monitoring will also provide synergistic collaborations with other ocean observatory activities that are being planned or underway.

Gabe Filippelli indicated that this consensus was in response to the urgent need to develop adequate borehole monitoring capabilities as a result of a number of issues associated with proposals that require Circulation Obviation Retrofit Kits (CORKs). He noted that there is often not enough money to include CORKs and this consensus statement is to note that despite SPC removing borehole monitoring from proposals in the past, they are not happy

with that option and want to endorse that monitoring plans are important. Maureen Raymo asked how much a CORK costs. David Divins noted that there are a lot of factors, but each CORK could add \$1M to the cost of a leg?. Jamie Allan added that there are additional expenses associated with long-term monitoring that need to be considered. Filippelli concluded that SPC has been dealing with the CORK financing issue for a couple of years, but the important thing is that CORKs are important and make the projects better, so removing them to make drilling the proposal feasible should not be the only option.

SPC Consensus 1003-07: SPC recognizes the high scientific value and widespread societal interest in understanding how—or whether—climate influenced the early stages of human evolution on the African continent. Addressing this issue requires a much more detailed understanding of the regional and local climates in which hominids and hominins evolved, and this understanding will require a coherent and integrated approach to recovering detailed climate records from terrestrial (former lake) sequences, from present day lakes in Africa, and from the ocean basins surrounding Africa. SPC invites the ICDP community to join with the IODP community to establish a Joint Program Planning Group charged to plan an integrated onshore, lake, and ocean drilling program that would dramatically enhance scientific understanding of how past climates may have influenced the early stages of our evolution.

Gabe Filippelli indicated that SPC Consensus 1003-07 forms a Joint Program Planning Group (JPPG) with the International Continental Scientific Drilling Program (ICDP) to explore climate and hominid co-evolution through drilling in both the marine and terrestrial realm. He noted that SPC's highest ranked proposal (724-Full Gulf of Aden Faunal Evolution) is logistically impossible due to current security issues, but if it could be drilled it would correlate well with terrestrial-based projects. He added that terrestrial projects require marine records for stratigraphic age control. The SPC is beginning to populate the group, aiming for approximately twelve members.

Hans Christian Larsen asked if there would be any cost implications and if the Integrated Ocean Drilling Program, Management International (IODP-MI) would receive a budget. He added that normally IODP-MI receives proposals and that SASEC typically determines which would be funded. Filippelli indicated that there would not be multiple proposals and that they would probably request funds, possibly for a small workshop. He added that SPC was not clear on the procedures. Maureen Raymo indicated that this should be discussed under Agendum 10. Terry Quinn noted that this consensus is consistent with his discussion with Uli Harms (ICDP) about how to better integrate the Integrated Ocean Drilling Program (IODP) with ICDP where science crosses the bounds of land and ocean, and that this integration needs to happen sooner. Filippelli agreed and noted that SPC has been in contact with ICDP and Harms to try to work on this.

SPC Consensus 1003-18: The SPC creates a subcommittee consisting of Früh-Green, Blackman, and Kasahara to work with the Science Advisory Structure Executive Committee (SASEC) to enhance communication with ocean observatory efforts to promote collaborative science activities.

Gabe Filippelli noted that this consensus established a subcommittee to work with SASEC to communicate with ocean observatory efforts to promote collaborative science activities. He added that SPC would like to help SASEC with this effort and that SPC would like to put together a list of issues in a letter to SASEC prior to the next meeting. Jan Willem de Leeuw

asked if this would include databases of ocean observatories. Filippelli noted it could, but that the charter is pretty vague. de Leeuw added that some groups are trying to make a comprehensive list of ocean observatories and that it would be good to work with those groups. Maureen Raymo noted that SASEC would return to this discussion under Agendum 6.

Gabe Filippelli noted that there were several SPC consensus items associated with ranking and forwarding proposals. He indicated that two proposals (547-Full4 Oceanic Subsurface Biosphere and 557-Full2 Storegga Slide Gas Hydrates) were deactivated and therefore not considered for ranking. Furthermore, Proposal 703-Full Costa Rica SeisCORK was not ranked as funding was not available to implement this proposal. He noted that SPC Consensus 1003-10 asked for three proposals (667-Full NW Australian Shelf Eustasy, 595-Full3 Indus Fan and Murray Ridge, and 698-Add2 Izu-Bonin-Mariana Arc Middle Crust) to be revised because the objectives did not match well with new drilling targets established following site surveys.

Gabe Filippelli showed the eighteen proposals ranked during the March 2010 SPC meeting and noted that SPC had to determine which of those proposals to forward to the Operations Task Force (OTF). He noted that after much discussion, the decision was made to forward proposals ranked 1-11 to OTF, understanding that some interesting proposals (such as 672-Full3 Baltic Sea Basin Paleoenvironment) fell below that line. Hans Christian Larsen asked Filippelli to explain why this proposal was not forwarded to OTF, as it would be discussed later in the meeting agenda. Filippelli replied that the proposal is a very interesting scientifically, but that the proponents do not have a lot of experience writing IODP proposals and that the site survey data is inadequate. He noted that SPC prefers not to forward to OTF proposals with vague site locations. Furthermore, SPC also needs to be sure the objectives are achievable and that they just felt this proposal was not ready yet. Larsen asked what would be required to get it ready. Filippelli replied that a scoping group composed of people with IODP experience to help the proponents prepare a revised proposal is what is needed. He added that based on science alone he thought that the proposal would have ranked much higher. Jamie Allan asked if one problem was that different platforms would be required for different sites. Filippelli agreed that was one issue as the sites are located in a variety of water depths that would require different platforms. Catherine Mével noted that Ruediger Stein has been working with the proponents to help them improve the proposal. Filippelli agreed that this was a tremendous start, but additional help from the IODP community would be beneficial. Robert Gatliff added that the European Consortium for Ocean Drilling Research (ECORD) Science Operator (ESO) would be willing to help with a scoping group.

Gabe Filippelli noted that SPC Consensus 1003-17 deactivated Proposal 556-Full4 Malvinas Confluence because it had ranked low in several SPC evaluations and was unlikely to be implemented. SPC endorsed Proposal 763-APL Iberian Margin Paleoclimate. SPC Consensus 1003-15 placed Proposal 681-Full2 Lesser Antilles Volcanic Landslides in the holding bin until site survey data is released, at which point it can be forwarded to OTF. Filippelli reminded everyone that the holding bin is for proposals that are basically ready, but require more site survey data, and that the proposals can be released to OTF by the SPC chair after consultation with the Site Survey Panel (SSP) or the Environmental Protection and Safety Panel (EPSP). Filippelli noted that SPC Consensus 1003-16 removed tier designations for all proposals residing with OTF, as these designations have become less important as the current program draws to an end.

Maureen Raymo asked if Proposal 763-APL Iberian Margin Paleoclimate only intended to drill the Pleistocene. Filippelli indicated he thought this was a result of the time limit (approximately three days per two month expedition) for Ancillary Project Letters (APLs), but that SASEC could mention the importance of recovering the Pliocene to the Implementing Organizations (IOs). Kenji Kato asked for a brief explanation of why two biosphere-related proposals were deactivated. Filippelli indicated that the proponents of those proposals had not responded in a number of years, despite contact by the watchdogs and IODP-MI, and that submitting a new proposal would be the best option. Chris Yeats asked how many proposals remained at SPC. Hiroshi Kawamura indicated there were eight, including one forwarded by the Science Steering and Evaluation Panel (SSEP) during their May meeting. Raymo noted that SASEC would discuss how to handle proposals currently in the system during the transition to a new program under Agendum 7.5.

3. Annual Program Plan

Maureen Raymo noted that SASEC reviews and approves the IODP Annual Program Plan (APP) and budget prior to submission to the Board of Governors (BoG) for corporate approval. She showed a timeline of the APP and budget approval process, noting that SASEC and BoG approve the draft APP in June, with final Lead Agency (LA) approval in July-September for Fiscal Year (FY) 2011, which begins in October 2010. She indicated that the SASEC budget subcommittee is chaired by Keir Becker with four additional members: Jan Willem de Leeuw, Hiroshi Kitazato, Gabe Filippelli, and Yoshiyuki Tatsumi.

3.1. IODP-MI Budget Report

Kiyoshi Suyehiro presented the APP to SASEC, noting that the main text was sent a few days prior to the meeting, with website access to the appendices. He noted that the latest version was posted as of 13 June and that these revisions could be accessed via the website. He added that the summary sheets have not changed and that SASEC input is extremely important. Suyehiro showed the definitions of Science Operating Costs (SOC) and Platform Operating Costs (POC), noting that modifications to these definitions could be made through consultation and concurrence of the LAs. As an example, he noted that some parts of SOC have recently been moved to POC, and that SASEC members need to take this into account when comparing the proposed budget to previous years.

Kiyoshi Suyehiro indicated that commingled funds amount to approximately \$23M each year, with the largest contribution coming from ECORD. He noted that these funds are spent for integrative activities for SOC and that this is the amount available through IODP-MI. He went over the general APP process, noting that IODP-MI receives budget guidance from the LAs in February and that information is passed on to IOs to develop draft proposals by mid-April, which are passed on to the SASEC budget subcommittee. He noted that this year the total amount requested by IOs was less than the total LA budget guidance.

Kiyoshi Suyehiro noted that IODP-MI received a revised FY11 APP in mid-May that included major changes for the Center for Deep Earth Exploration (CDEX) and ESO. He indicated that each IO proposal included a three-year view of the budget, given to SASEC as a single document. He added that in reviewing the three-year budget, the POC-SOC definition was not consistent. Previously the US Implementing Organization (USIO) separated operational and non-operational SOC, but that operational SOC are now included in POC beginning in FY11 and will be in the revised FY10 APP. Furthermore, ESO had a separate travel budget, but now all SOC to ESO is funded directly through the ECORD Management Agency (EMA) rather than the National Science Foundation (NSF). Suyehiro

noted that personnel changes and office relocation at IODP-MI occurred over FY09/10, meaning that cost increased during the move, but overall there has been cost reduction during the last three years. He concluded that overall, the present plan is within budget guidance; however, cost savings are extremely important for FY12/13 since the OTF scenario is to have two Mission Specific Platform (MSP) expeditions and deep-riser drilling by the *Chikyu*, together with eight months/year of *JOIDES Resolution (JR)* operations during the remainder of the program.

Kiyoshi Suyehiro briefly went over the operations plans included in the FY11 APP. The following expeditions are scheduled for the *JR*: South Pacific Gyre Microbiology, Louisville Seamount Trail, Cascadia CORK, Superfast Spreading Rate Crust, Costa Rica Seismogenesis Project (CRISP) A, and Mid-Atlantic Ridge Microbiology. He noted that a MSP expedition will not be drilled during FY11. Instead, ESO will conduct a hazard site survey for Proposal 548-Full3 Chicxulub K-T Impact Crater. The *Chikyu* is scheduled to complete Nankai Trough Seismogenic Zone Experiment (NanTroSEIZE) Stage 2, and will also likely conduct a Complimentary Project Proposal (CPP) in northern Japan drilling into a hydrocarbon-bearing area to examine coal-bed microbiology. He added that this would be the first time the *Chikyu* conducted riser drilling in a hydrocarbon-bearing zone. He noted that EPSP has looked into the safety of drilling into this area and has cleared it. Once the Japan Agency for Marine-Earth Science and Technology (JAMSTEC) receives funding from the Japanese government, the expedition will happen in FY11. In addition, he added that IODP-MI hopes to complete the Scientific Earth Drilling Information System (SEDIS) in FY11.

Kiyoshi Suyehiro presented the proposed budget for FY11 and compared it to the previous two years (Figure 1). He noted a discrepancy in the FY10 summary pointed out by Jamie Allan, as the USIO did not include \$25M received as part of the US Stimulus Package in the POC. With that addition, the total FY10 USIO SOC/POC are \$63.5M. Allan added that these funds are not included in that column because stimulus money has to be tracked separately. Suyehiro noted that there appears to be an overall decrease in SOC funds between FY10 and FY11, but that is artificial due to the change of SOC definition. He added that the CDEX FY10 schedule has changed, and that IODP-MI is revising the FY10 APP to reflect the new schedule. He noted that the IODP-MI budget was \$6.1M in FY10, which included the office relocation cost, but that budget has decreased to \$5.3M in FY11. He added that IODP-MI is

Summary SOC and POC Budgets

	IODP-MI	IODP-MI Operators & Subcontractors				Total
		USIO	CDEX	ESO	Bremen	
SOCs	5,330,111	4,081,893	9,700,000	2,573,641	338,779	\$22,024,424
POCs	-	62,548,034	89,563,856	1,538,898	-	\$153,650,788
Total	\$5,330,111	\$66,629,928	\$99,263,856	\$4,112,539	\$338,779	\$175,675,213

FY10

	IODP-MI	IODP-MI Operators & Subcontractors					Total
		USIO	CDEX	ESO	Bremen	SIO	
SOCs	6,157,461	12,838,112	7,557,390	2,984,200	338,792	270,000	\$30,145,955
POCs	0	25,695,665	38,476,429	1,743,000	-	-	\$65,915,094
Total	\$6,157,461	\$38,533,777	\$46,033,819	\$4,727,200	\$338,792	\$270,000	\$96,061,049

FY09

	IODP-MI	IODP-MI Operators & Subcontractors					Total
		USIO	CDEX	ESO	Bremen	SIO	
SOCs	4,841,721	11,420,909	12,809,544	4,944,300	324,590	270,000	\$34,611,064
POCs	0	49,343,199	106,226,381	19,949,200	-	-	\$175,518,780
Total	\$4,841,721	\$60,764,108	\$119,035,925	\$24,893,500	\$324,590	\$270,000	\$210,129,844

Figure 1. Fiscal Year (FY) 2011 Annual Program Plan budget for Science Operating Costs (SOC) and Platform Operating Costs (POC) compared to FY09 and FY10.

trying to reduce that amount as much as possible, but still remain functional. The overall program cost for FY11 is \$175M, a decrease from FY09 (\$210M) when all three platforms were operating.

Maureen Raymo thanked Kiyoshi Suyehiro and IODP-MI for making the APP more readable and easier to understand in response to a request by SASEC.

3.2. Update from Budget Subcommittee

Keir Becker gave an update from the SASEC budget subcommittee. He agreed that the text of the APP was much easier to understand this year. He noted that the subcommittee was unaware of the changes in SOC definition and also that the USIO FY10 POC did not include the \$25M in stimulus funds; thus, some of the conclusions in his presentation need to be updated. Becker noted some positive developments, including that the FY11 POC and total budgets are up from FY10. With a strong FY11 science program, he is hopeful that the budget will be comparable in FY12/13. Becker also noted that the FY11 SOC budget was below the agency target of \$23.5M, so that there may be some reserve for FY11 that could be carried over into FY12/13. He added that at this time the APP is in much better shape than in previous years.

Jamie Allan noted that ECORD has informed NSF that they will contribute \$3.5M less in commingled funds in FY11 in order to have money in reserve for upcoming MSPs; therefore, there is \$3.5M less for cash flow. Becker noted that this is a major change.

Keir Becker indicated that the IODP-MI budget for FY11 is \$1M less than the previous year, showing the benefit of office consolidation. Chris Yeats noted that the budget was still up from FY09, prior to the relocation. Jamie Allan responded that the FY11 IODP-MI budget includes the Scripps Institution of Oceanography (SIO) budget, which was a separate line item in FY09/10. Kiyoshi Suyehiro added that overall management and administration costs have decreased, but engineering development changes each year, accounting for the increase. Susan Humphris asked if there was an estimate for how much will be saved by the office consolidation. Suyehiro responded that there is a substantial decrease in salary, benefits, and rental costs. He also noted that IODP-MI spent less than what was budgeted for FY10. Allan added that NSF has looked carefully at this question and determined there is \$1M in savings, which is not apparent on the summary tables. The change in office location and reduction to two people in Washington DC resulted in substantial savings.

Keir Becker noted that the FY11 budget for ESO is relatively small as they will be conducting only a hazard site survey rather than drilling. He added that the FY09 ESO budget was much higher because it includes costs associated with two MSP expeditions. Catherine Mével commented that ESO would like to have two additional MSPs prior to the end of the current program, but do not have enough POC to do that; thus, ESO has informed the LAs that they need to change their POC/SOC ratio. Maureen Raymo asked if this was because platform costs are increasing. Mével replied that it was. Gabe Filippelli noted that ESO had estimated \$1M for the Chicxulub hazard site survey and asked how that was determined. Robert Gatliff indicated that was a very rough estimate based on the survey completed for the New Jersey Shallow Shelf expedition.

Keir Becker noted that the POC budget for CDEX is up strongly from FY10, although this includes the possible CPP that still requires SPC approval. Gabe Filippelli noted that he is aware of the CPP, but that SPC has not received it yet as they are awaiting a delayed

proponent response letter (PRL) in response to the recent SSEP review. He noted that this is the first time a CPP will be conducted and added that the budget numbers are not yet fixed, but that perhaps the way to handle it was to give provisional approval with the understanding that the budget would change. He indicated he was not sure how much of the SOC budget was allocated to the CPP. Hans Christian Larsen noted that for a CPP, 70% of the POC funds have to come from an outside source, but that SOC funds come from the program. There was considerable discussion at SPC if this was acceptable. He added that for this CPP, the POC would be fully funded, but there would still be SOC funding from the program. Larsen noted that he thought it unlikely there would be significant SOC savings, even if the CPP does not occur (perhaps only approximately 10% of what is shown in the APP). Maureen Raymo noted that this sounded like a beneficial program, although the timeline was out of sync with the APP. Larsen responded that IODP-MI was presented with this in March as a national program for the *Chikyu*. He indicated there was intense discussion with CDEX and the Ministry of Education, Culture, Sports, Science and Technology (MEXT), resulting in the suggestion of a formal proposal for a CPP. This was seen as a win-win situation, as the project would still be drilled, but with the added benefit of being an international program. He added that the proponents worked very hard to meet the 1 April 2010 deadline for proposal submission and that EPSP held a special meeting on 14 May to assess it, with the result that it was deemed safe to drill. Raymo asked if there was any role for SASEC. Larsen suggested SASEC give SPC a deadline for finishing the review and making a recommendation, noting that a response by early July would not delay the APP. Filippelli reminded everyone that SPC does not have the proposal yet, but would try to work with that deadline. Jan Willem de Leeuw noted that a lot of this discussion was a result of not understanding the CDEX budget, and asked if CPPs could be broken out in a separate column in the future. Suyehiro indicated they could do that since the three-year summary is a request from SASEC and not the funding agency.

Keir Becker concluded by presenting the subcommittee recommendations, although he noted that the present discussion changed what was indicated on the PowerPoint slide. He did commend the agencies for a somewhat increased funding level, SPC and OTF for a strong science plan, and IODP-MI and the IOs for a strong draft APP. He added that they originally intended to request a modest increase in the IODP-MI workshop budget, but with the potential SOC shortfall that would not be the case. He indicated he was unsure how to address this potential \$2M shortfall in SOC funds.

3.3. Discussion including scheduling issues

Maureen Raymo noted that Benoit Ildefonse was conflicted for part of this agenda item, so he left the room. She indicated that she had received an email from the proponents of Proposal 522-Full5 Superfast Spreading Crust, requesting changes to the scheduling of the expedition. She added that Hans Christian Larsen would present the issues, but that it comes down to SASEC's role in approval of the science plan and budget.

Hans Christian Larsen showed the FY11 APP expedition schedule for the *JR*, which includes Superfast and CRISP A in one expedition window. He explained that SPC had suggested they be combined into one expedition and that this was considered by OTF. It had previously been decided that in order to complete more expeditions, when possible expeditions would be shortened to the minimum length necessary to complete good science and then combined with other shortened expeditions. Since Superfast and CRISP A sites are in close proximity to each other, this was a good place to try this approach. It was left to SPC and OTF to work with the proponents to work out the details for shortening their expeditions. Larsen noted that

there were a number of issues as a result of this, including the time on site and priorities for CRISP A drilling considering the shortened length of time available for drilling.

Hans Christian Larsen presented a quick overview of the CRISP A proposal, noting that it is the second of the big seismogenic zone proposals, with nonriser drilling during Phase A. He noted that OTF discussed many possibilities of what to drill based on the limited time available. OTF felt the mid- and toe-of-slope sites would be important, but that the proponents felt the two deeper locations would be more important for modeling the amount of erosion that occurs in the subduction corridor. OTF agreed with this approach, prioritizing the mid-slope site, which must drill into basement. The second priority would be the upslope site with full sediment recovery. He added that the proponents are happy with this and that the USIO has scoped this in detail, indicating that reaching basement at the first site could preclude reaching basement at the second site. Should more time become available, the trench site would be the third priority, followed by a reference site on the incoming plate.

Hans Christian Larsen presented a synopsis of the planned Superfast expedition, in which they hope to re-enter Hole 1256D to deepen it. He noted that this site is located on fairly young, hot crust and has been successfully drilled during Ocean Drilling Program (ODP) Leg 206 and IODP Expeditions 309 and 312. The final results of the latter expedition are published in the journal *Science* as this is the first time drilling has reached through the lava deposits and sheeted dikes into gabbros; however, the hole did not reach through the entire transition into the lower crust. The goal of Superfast is to drill through the dike-gabbro transition zone into the gabbros. The proponents are concerned that with the current program there is not enough time to drill significantly deeper. They indicated an additional 18 days would potentially double drilling time and allow for ~300-400 m deepening, thus likely reaching cumulate gabbro. Larsen noted that hole conditions were deemed good in 2005, but it will still need to be cleaned out before drilling can resume. He added that there is strong consensus from the community that getting significantly into the gabbros is important for the remainder of the program. He noted that at the recent Mohole workshop in Kanazawa, this site was considered as a possibility for a future Mohole. Recovery of an undisturbed temperature record would provide calibrations for the thermal model for deeper penetration, which will be a necessity for realizing a Mohole. With the current schedule of 33 days, the hole may only be deepened by ~100 m; adding an additional 14 days could change that to ~300-400 m, thus likely reaching the cumulate gabbro target. Larsen noted that the proponents initially approached him to find out what to do about their concerns, and followed that up with a letter to SASEC. After discussion, Larsen and Maureen Raymo contacted the USIO to get a feasibility study for providing two additional weeks of drilling to make a robust effort to deepen the hole.

The USIO made an assessment and presented their results in a letter to IODP-MI on 11 June 2010. The USIO assessment resulted in small differences in estimated penetration due to differences in drilling strategy. The USIO also noted that the transit time is less based on actual planned ports. As a result, the original schedule could potentially deepen the hole by ~175-250 m; adding an additional 14 days to the expedition could deepen the hole ~325-455 m. There are two options to extend the expedition by 14 days. The first (cost neutral) option is to take 14 days from another expedition. The second option is to find an addition \$500,000 in POC; NSF is currently considering funding options.

Larsen again showed the diagram of estimated penetration, noting that a further 100 m of penetration likely terminates within the dike/gabbro transition zone. Maureen Raymo asked

how the depths of the boundaries were determined. Larsen responded that it was based on comparison to ophiolite studies in Oman. He added that although the lower boundary depth could be quite different, he thought it unlikely that the upper boundary would be. Although 100 m of penetration could reach the gabbros, there is no contingency; he noted that adding 14 days would make reaching cumulate gabbros much more likely. Keir Becker asked if this had been discussed at SPC. Gabe Filippelli noted that SPC originally was okay with the split expedition because of the uncertainties of target depth. Larsen added that the details of how to split Superfast and CRISP A were left to OTF. The proponents of Superfast responded when they were not happy with the plan, but the response came after the March SPC meeting.

Hans Christian Larsen presented the IODP-MI recommendation, suggesting that IODP-MI request continued USIO scoping of the Superfast expedition for final assessment of operational feasibility of up to 14 days additional time. Furthermore, NSF should assess if the necessary additional POC funding for a 14 day extension can be made available. Finally, any necessary changes should be applied to the FY11 APP before final approval in August/September.

Ian Ridley pointed out that Superfast opted to deepen Hole 1256D because of the presumed relationship between spreading rate and thickness of layer two; the faster the spreading rate the thinner the crust. The possibility of the gabbros not being reached until a depth of 2 km would be inconsistent with this relationship. He added that deepening the hole will confirm what we think we know about this relationship. Hans Christian Larsen added that one message out of the Mohole workshop is that there is very little thermal information about this type of crust, and that this information will be vital to realize drilling to the Moho.

Jamie Allan noted that the question is will it be worth spending an additional \$500,000 to help to meet the goals of the Initial Science Plan (ISP). Maureen Raymo summarized this point, noting that should SASEC determine this is compelling enough science, that it would be crazy not to do it now. There was much discussion around this point. There was much discussion around this point. Chris Yeats noted that with the current schedule, if re-entering Hole 1256D proved impossible, then that would be abandoned and additional drilling time would be available for CRISP A. He asked what would happen if Superfast became a single expedition, but then failed to re-enter the hole. Larsen responded that they expedition would move to CRISP A and that because both expeditions aim to drill basement, the Superfast science party would be well suited to begin drilling at CRISP.

Terry Quinn noted that deeper penetration into ocean crust has been a priority, and that this should be what drives the SASEC decision, rather than the proposed penetration diagram. Jan Willem de Leeuw agreed with Quinn, noting that this is one aspect of the ISP that has been missing, but should be done before the end of the program. He added that this would penetrate new territory, so whatever the outcome it would be interesting. Furthermore, considering this would be a long-term investment towards Mohole drilling, an additional \$500,000 is not much. Kenji Kato agreed with this assessment. Susan Humphris noted that scientifically she supported this, but was not sure about it in terms of the FY11 budget. After additional discussion regarding the FY11 APP, Hans Christian Larsen noted that the budget details could not be worked out at the current meeting, but that IODP-MI needed to know if they should ask the USIO and NSF to continue looking into whether or not an additional 14 days of time for Superfast would be possible.

Maureen Raymo noted that SASEC could give science guidance indicating that this is critical science that has so far slipped through the cracks. She added that based on the discussion all members of SASEC feel that this is more than worth the investment and that SASEC can make a strong statement regarding this. Terry Quinn agreed, noting that it is clear in the ISP that recovering crustal rocks is important. He added that SASEC can say continue to scope this and if the two extra weeks are possible extend the expedition. Raymo agreed and asked Quinn to draft a motion. Brad Clement noted that the USIO needs to know what to do right away or there would not be enough time. Rodey Batiza indicated that the SASEC motion provided guidance about the science and that the USIO could use this to move ahead with scoping.

SASEC Motion 1006-03: SASEC recognizes the exceptional circumstances associated with the possibility of extending proposed drilling at the SuperFast site. Hole 1256D is the first drill hole to sample a complete section of intact upper oceanic crust down to gabbros and is one of only two deep reference holes into intact oceanic basement. It penetrates deeper in the ocean crustal “stratigraphy” than any other site, with the bottom of the hole residing in the dike-gabbro transition. Extending the cruise opens up the possibility of a ~300 to 400 m deepening of Hole 1256D and the sampling of cumulate gabbros in intact ocean crust for the first time. This would be a milestone achievement for IODP, and could have very high scientific impact. In addition, obtaining thermal data at this site will inform plans to drill to the Moho in the next program, thereby building our knowledge base for the future. While not willing to take time away from the expeditions currently scheduled for FY11, SASEC requests IODP-MI to continue to explore the feasibility of extending drilling at SuperFast for an additional 2 weeks beyond what is called for in the draft FY11 APP, and report back to SASEC on its findings as soon as possible.

Becker moved; Quinn seconded; 9 in favor (Arai, Becker, de Leeuw, Humphris, Kato, Kitazato, Quinn, Raymo, Tatsumi); 2 non-voting (Filippelli, Suyehiro); 1 conflicted and not present in the room for this agenda item (Ildefonse)

Maureen Raymo also noted that SASEC needed a consensus statement endorsing the APP. Chris Yeats felt that SASEC could not yet endorse the APP due to budgetary unknowns. Kiyoshi Suyehiro noted that the total budget is always unknown. Raymo added that SASEC would be endorsing the science addressed in the APP.

During discussion of the APP motion, Shingo Shibata noted that page nine of the APP indicated IODP had received a new 10-year contract. He asked if this was correct. Kiyoshi Suyehiro replied that it was. Shibata added that last year there had been comments that the APP did not highlight science findings, and he was happy to note that this had been added to the new APP. He further noted that he would like to see scientific highlights rather than the science relevance to the ISP. Maureen Raymo thanked Suyehiro for making the report much more effective.

SASEC Motion 1006-04: SASEC approves the FY11 annual program plan presented at its June 2010 meeting, with the understanding that some budgetary matters remain to be finalized. SASEC emphasizes the importance of achieving the IODP science goals outlined in the FY11 APP and recommends approval by the IODP-MI Board of Governors.

Becker moved; Humphris seconded; 9 in favor (Arai, Becker, de Leeuw, Humphris, Kato, Kitazato, Quinn, Raymo, Tatsumi); 2 non-voting (Filippelli, Suyehiro); 1 conflicted and not present in the room for this agenda item (Ildefonse)

4. International Continental Scientific Drilling Program-Integrated Ocean Drilling Program linkages update

Terry Quinn presented conversations between himself and Uli Harms (ICDP), with contributions from Shoji Arai, regarding linkages between IODP and ICDP. He noted that currently there is no official pathway for linkages. He added that there has been some increased interaction because former SAS panel members Jim Mori and Jan Behrman now reside on ICDP panels. Quinn suggested a joint approach to review proposals that have both a land and sea component, which is generally a small number. He noted that the current challenge is that both IODP and ICDP indicate they want to wait for the other to drill, resulting in progress being significantly delayed. Quinn suggested that a protocol be established to ensure regular exchange of joint proposals, possibly through panel chairs. He noted that the new Science Plan should identify linkages with ICDP, and include language in the plan to do so. He added that both he and Harms think it would be useful to have a formal procedure, but neither thought it would be necessary for official liaisons to attend each panel meeting.

Chris Yeats noted that at the last SASEC meeting, they heard about an ICDP proposal to drill in Norway and the North Sea. He wondered if there had been any discussion on how to demarcate proposals between ICDP and IODP when there is some overlap. Terry Quinn replied that the shared science goals are what are important, not the present location of the shoreline. He added that sharing the cost of proposals is something that should be discussed. Yoshiyuki Tatsumi noted that the current proposal evaluation system is not well suited for collaboration between the two organizations, but by using workshops, ICDP people could attend to help develop joint proposals. Maureen Raymo added that this is what Gabe Filippelli envisioned for the Human-Climate JPPG.

Jamie Allan noted that ICDP is thinking about changing how they preserve records; they want to follow the IODP model for core curation, data management, etc. Larsen added that IODP-MI has been discussing this with ICDP for three years. Jan Willem de Leeuw noted that ICDP basically does MSP-type operations, and thus we could learn something from each other about the organization of these types of efforts. Terry Quinn agreed, noting that so far there has been work by individual proponents to make connections, but that a larger effort is needed. Kiyoshi Suyehiro noted that he had met with Walt Bannerman and came to an agreement that they would like some sort of common umbrella for the two programs. It would be good if the new Science Plan had some sort of preamble that states the ICDP objective and notes the connection to IODP, with indication that there will be some sort of effort to make this connection. He added that we need a statement endorsed by the LAs to break the stalemate of each organization waiting for the other to drill. Maureen Raymo asked if a strong statement about endorsing scientific objectives that cross the land/sea boundary and encouraging IODP-MI to support workshops was needed.

Hans Christian Larsen noted that a big difference between the organizations is that in IODP, science review determines what will be drilled, whereas in ICDP, the availability of funding approves the science to some extent. He added that there will not be true cooperation unless there is one entrance for proposals for both as the path trying to combine proposals does not work well. Maureen Raymo added that this should be kept in mind when looking at the new program architecture. Catherine Mével noted that the workshop approach to developing proposals is a really good idea. Chris Yeats added that the CPP funding model overlaps with how ICDP works and that perhaps this could be a path for cooperation.

5. Integrated Ocean Drilling Program-Deep Carbon Observatory linkage update

Kiyoshi Suyehiro noted that the information he presented about this agendum at the January 2010 SASEC meeting is still current. He added that a workshop jointly funded by IODP and the Deep Carbon Observatory (DCO) would take place on 9-11 September at the Carnegie Institute of Washington, DC. The program committee for the workshop consists of two people from the Mohole workshop and others from DCO. The objectives are to expand the scientific scope of reaching the mantle, with the hope of reaching out to scientists outside of the IODP community to get them engaged and enthusiastic about reaching the mantle. In addition, engineers and project managers who have handled large industry projects will be invited to identify a feasible roadmap that will address things like how long it will take to conceive the project, what technology will be needed, and how much it will cost. Suyehiro noted that engineers attended the Mohole workshop and that they were very helpful in keeping the discussion grounded.

Maureen Raymo noted that IODP-MI is doing a good job of pushing the IODP-DCO connection and that it is really moving forward. Jan Willem de Leeuw added that DCO will be generating a white paper that combines biotic and abiotic aspects of deep life and that he would be happy to send it when complete to Raymo or IODP-MI for distribution.

6. Linkages to other scientific and national initiatives (Ocean Observatories Initiative, etc.)

Maureen Raymo asked if anyone in the room was actively involved with the Ocean Observatories Initiative (OOI). Hiroshi Kawamura noted that in SSEP they can identify links to other international programs and that IODP-MI also looks for those linkages. Benoit Ildefonse noted that the InterRidge program has been very willing to link with IODP as much as possible, and as a result has had a liaison attend the SPC meeting, which they are willing to continue. Gabe Filippelli pointed out that H. C. Larsen would attend the next InterRidge Workshop in September; Larsen concurred.

Gabe Filippelli noted that SPC developed a consensus to form a small group to explore integrating with other programs and wondered if that was enough, or did there need to be more systematic attempts at the SPC or SASEC level to incorporate other communities. Maureen Raymo noted that this was a good question as SASEC tends to be more reactive, and she asked that the panel members think about this. Filippelli asked if SPC should act by making a consensus about OOI or if linkages would be handled another way in the new program. Kiyoshi Suyehiro added that the challenge was moving from generic terms to a specific relationship, which takes national level involvement. Susan Humphris asked Filippelli what the charge was to the small group formed to explore integration with other programs. Filippelli replied that he was unsure, which is why he brought the issue up to SASEC. He noted that originally the group was going to be more directly associated with OOI, but SPC decided the group should be international, even though many of the programs are national. He added that the group does not really know what they will be doing. Rodey Batiza added that this sort of effort usually works best at the grassroots level during early stages of planning. He further noted that relationships often develop by people working together and holding a workshop.

Maureen Raymo noted that SASEC could be proactive by putting an advertisement in Eos indicating that there is a pool of money for initiatives to bring different groups together for planning to encourage proposals. Hans Christian Larsen agreed that could be done, but was unsure if it would help when the biggest hurdle is that the structure needs to be responsive to

joint proposals. His hope is that in the new science structure, at the pre-proposal level, joint proposals between programs (e.g., IODP-ICDP) would go to the same place, but then take different paths from there. Jan Willem de Leeuw noted that in the new program, there needed to be a distinction between national and international programs, but that it would be good in the early stages to be generic. He added that a small database of programs would be useful. Raymo further noted that the new Science Plan should have a section about linkages that has not been written yet and wondered if SASEC should have a hand in writing it. She noted they would come back to that when discussing the new Science Plan. Hiroshi Kawamura agreed to distribute a list of these organizations and initiatives to SPC and SASEC.

Maureen Raymo asked everyone to come back to SASEC with specific ideas that could be acted upon in regards to linkages to other programs. Keir Becker asked if the objective was to make sure IODP is important to other programs. Catherine Mével noted that in Europe there is the Deep Seafloor Frontier initiative and that they are working to install seafloor observatories. She indicated that IODP needed to talk to groups like this to combine efforts and address new scientific problems that cannot be addressed individually. Raymo agreed, indicating that they need strong collaboration.

7. Program Renewal

7.1. International Working Group Plus report

Catherine Mével presented the International Working Group Plus (IWG+) report. She noted that the vision of IWG+ is to frame a new multinational program architecture that promotes delivery of the best possible and most exciting and relevant science to the broader science community and the public through scientific ocean drilling. IWG+ meets every six months (beginning June 2009) and is composed of three co-chairs (from NSF, MEXT, and ECORD), members from all funding agencies, and observers from IODP-MI, IOs, and the scientific community. She noted that everyone could find out more by visiting the IWG+ website at <http://www.iodp.org/International-Working-Group-Plus/>.

Catherine Mével noted that IWG+ is making excellent progress, with focus on integrative cooperation. In addition, they have developed four position papers on points of agreement and given a guidance paper to the Science Plan Writing Committee (SPWC). She also noted that they are seeking names for the new program. Rodey Batiza added that Sara Saunders is in contact with IWG+ and the Education and Outreach Task Force, with the plan to have three meetings (one each in Europe, US, and Asia). These meetings would bring together 13-14 people to brainstorm ideas for names for the new program. He noted that Saunders' background is in marketing and she is very excited about this. He further added that they are looking for a name that does not include the word drilling.

Catherine Mével described four position papers on points of agreement developed by IWG+. The first position paper is on the multinational program architecture and financial contributions. This paper suggests elimination of the distinction between POC and SOC, and that platform providers would cover all costs associated with operating their platforms. Commingled funds would be maintained and used to support integrative activities and contribute to *Chikyu* riser operations. At this point participation rights based on financial contributions to the commingled funds have not been defined. The second position paper describes the new program management and money flow, and suggests that IODP-MI would continue as the Central Management Office (CMO) through the transition phase (until 2016). In the new program the CMO would continue to conduct integrative activities including planning, core curation, data management, education and outreach, recruitment of new

members, publications, engineering development, linkages to other programs, and fund raising. Jamie Allan added that NSF has changed how they deal with large bodies (from contracts to cooperative agreements). IWG+ collectively agreed that IODP-MI should remain for approximately five years once converted over; the transition may occur later than originally expected, so 2016 is not firm. Mével added that the important thing is that there will be a new bid at that time and IODP-MI could move to Europe or the US. The third paper proposes a new SAS structure that suggests simplifying the current structure into two committees for proposal evaluation and program development. (This would be a reduction from the current three: SSEP/SPC/SASEC.) It also suggests separate pathways for planning riser and long-term multi-expedition riserless projects. The fourth position paper describes transition to the new program. It stresses the importance of beginning now in order to be ready for new expeditions in 2014. One important consideration is how to deal with proposals presently in the system and when to place a call for new proposals. She stressed the importance of having the new structure in place well before 2013. She added that they hope to have the new science plan approved and the new structure decided by mid-2011, which would allow funding agencies to have these documents to make decisions. For drilling to begin in 2014, planning for *Chikyu* needs to begin as soon as possible; planning for *JR* and *MSP* expeditions needs to start in 2012. She added that comments could be sent to iwg_plus@iodp-mi-sapporo.org.

Rodey Batiza noted that IWG+ would meet on Wednesday and Thursday and that the meeting was open and all were welcome to attend. He indicated there had been meetings between NSF, MEXT, and ECORD that have led to further agreement. He noted that the four position papers would be turned into a 4-5 page Memorandum of Understanding (MOU) for members to agree to and sign, with the hope that the document would be simpler and easier to understand. Batiza noted that they hope to vastly simplify the entire program. The model they are looking at begins with a workshop to develop pre-proposals; full proposals would go to a single evaluation panel that would receive input from IOs and that these proposals would only be evaluated once. Selected proposals would be sent to an implementation committee that would be more mindful of sensible ship tracks, which has been an issue in the current program. A single committee at the top would combine SASEC/SPC/IODP Council into an Executive Board that would include the funding agencies, the IOs, IODP-MI, chairs of the evaluation and implementation committees, and scientific leaders from various countries. Batiza added that how service panels would work has yet to be decided, but a safety panel would still be required. The hope is more meetings could be done by email. He added that IWG+ would like input, so feel free to give it to them as soon as possible. Catherine Mével added that everything needs to be finalized within the next year.

Yoshiyuki Tatsumi asked about the relationship between IWG+ and the Second Triennium Review committee regarding the new SAS structure. Catherine Mével noted that the Second Triennium Review is complete and that IWG+ will incorporate their report. Rodey Batiza added that there were a number of committees looking at the SAS structure and that IWG+ is looking at the results of each of these. He noted that it was interesting that all had essentially come up with the same answer. Benoit Ildefonse noted that the community was really starting to wonder about the new program, for instance how and when to submit new proposals. He wondered if it is time for more information to be distributed. Batiza noted that IWG+ is painfully aware that they are behind schedule and realize that it is vital to get information to the community. Mével added that they could not communicate anything until all steps are agreed upon. Ildefonse added that the biggest question is how the new program will work; should people submit new proposals now or wait for the call for the next program. Hans

Christian Larsen noted that the last call for proposals for IODP had just been published in Eos and that it indicated what kinds of proposals would be considered.

7.2. Science Plan Writing Committee report

Hans Christian Larsen gave the SPWC update. He noted that the IODP New Ventures in Exploring Scientific Targets (INVEST) report was now published and available on the IODP (and soon to be available on the Marum) website. He added that the INVEST executive summary was published in Scientific Drilling volume 9. He congratulated the steering committee of INVEST, noting that this was a major accomplishment and huge success.

Hans Christian Larsen indicated that the first draft of the new Science Plan from the SPWC is available. The committee has identified four grand scientific challenges (outlined below); however, several sections covering resources and implementation, outreach, and program nature and management are still missing and it needs to be decided if these should be included. Larsen noted that the Science Plan would be posted for community review in approximately August and that a science writer would be involved in September, with the final SPWC meeting planned for early October. The first draft and new program name will be presented at the American Geophysical Union (AGU) fall meeting during a Townhall and special Union session. Larsen added that he hoped the final version would be ready in February 2011.

Hans Christian Larsen presented an outline of the first draft of the new Science Plan: The Earth's Hidden Frontier: Beneath the Ocean Floor, the Case for Ocean Drilling. The vision is to deliver the Earth and life sciences discoveries needed to meet the challenges society faces as stewards of our planet. The four grand challenges are:

- Climate and ocean change: Reading the past, informing the future
- The biosphere: Co-evolution of life and the planet
- Earth dynamics and processes
- Earth in motion: Crustal dynamics, fluid flow, and active experimentation

Hans Christian Larsen noted that each chapter contains several boxes that illustrate examples of what could be done. He added that the document is a major accomplishment, but that they need feedback from every group meeting during the week. He noted specifically a number of questions SASEC members should think about when reviewing the plan, including the scientific content, technical level of writing, general structure, etc. He also asked everyone to think about the parts that are still currently missing (outlined above) and the format and timing of the community review. Maureen Raymo noted that the SPWC has done an incredible job delivering the document and asked SASEC to look at it and come up with positive and instructive feedback.

7.3. Discussion of Science Plan draft

Rodey Batiza noted that there will be three different versions of the new Science Plan: a full version for scientists, a boiled down version for funding agencies, and a 4-5 page version suitable for the general public (e.g., science teachers) that will hopefully generate excitement. Keir Becker noted that Batiza did not include the ocean drilling community in the list, and wondered if the plan would be a guide for writing proposals. Hans Christian Larsen indicated that there had been discussion at SPWC whether or not the new Science Plan would be the same as an ISP, but there had been the general assumption that it would give some guidance

to the community. Batiza added that NSF would use the Science Plan as a measure of what was being accomplished in the new program.

Prior to general SASEC discussion, it was determined that this part of the meeting would be an “Executive Session” (comments not included in the minutes), encouraging everyone to speak freely. Feedback from this discussion would be collected and then given to the SPWC. Maureen Raymo noted that everyone also needed to email comments on the Science Plan to Raymo, Susan Humphris, and Hans Christian Larsen, who would summarize the comments in a draft letter to Mike Bickle. The SPWC would then have a short amount of time to make changes to the draft Science Plan, at which point it would be returned to SASEC for further comment.

SASEC Action Item 1006-05: All members of SASEC (as well as concerned stakeholders in the room) will read the draft Science Plan and forward their comments (general, specific, holistic, scientific, thematic, stylistic, etc.) to SASEC Chair Maureen Raymo, cc'd to SPWC liaisons Hans Christian Larsen and Susan Humphris, by Friday, June 25th, 2010.

Raymo, Larsen, and Humphris will collate and summarize these comments (identities removed) and draft a letter of guidance to SPWC from SASEC.

This draft will first be circulated to SASEC for comment and approval (fast turnaround) with the aim of providing constructive and useful feedback to SPWC by Friday, July 9th at the latest.

SPWC is anticipated to provide a revised version of the Science Plan for community comment and evaluation by August 1st. Community input will be accepted until September 14th.

7.4. Timeline and procedure for Science Plan review

Keir Becker noted that for the ISP there was a panel that took the science plan and added implementation, followed by evaluation by a review board and review committee. He asked if the community review for the new Science Plan was going to be open for everyone. Maureen Raymo indicated that if the Science Plan went out for review at the end of July, then it would likely not include finished implementation and education and outreach sections. Hans Christian Larsen agreed, but noted he preferred that the community look specifically at the science. Raymo asked what the timeline of review for the document was and whether it would be the draft or revised document that the community saw. Rodey Batiza noted that the National Research Council (NRC) would only review a public document. He added that November 2010 would be a little late for the review. Raymo indicated that SASEC would provide feedback to the SPWC so they could update the document prior to October.

Maureen Raymo asked how the community input would happen. Hans Christian Larsen indicated that was something SASEC needed to resolve. Rodey Batiza added that the ISP had a “Blue Ribbon” panel of reviewers and that the public commented on a mature draft. Raymo noted that there should be a revised Science Plan by August, and asked if it should then be sent to a “Blue Ribbon” panel or posted for public comment. Catherine Mével noted that the community had been told that it will be posted on the website, so that must be done. Raymo indicated that she would write a letter, with the help of Larsen, inviting comments on the Science Plan to be directed to SASEC.

Maureen Raymo asked how SASEC should choose the members of the “Blue Ribbon” panel. Keir Becker read the list of members from the previous panel. Raymo indicated that everyone should think of who would be effective on this panel and send names to Raymo, Hiroshi Kawamura, and Hans Christian Larsen. Becker noted that the previous panel reviewed a fully developed document that included science and implementation. Gabe Filippelli added that it was not a science plan if it did not include a way to implement it, noting that proposals have to include some sort of implementation. Susan Humphris agreed with Filippelli and suggested having community review of the science, with the “Blue Ribbon” panel review after the implementation is written (possibly in November).

Maureen Raymo asked for general consensus about how to move forward. Should a revised draft of the Science Plan go out to the community at the end of July, and should high-level advice occur at the same time or after the community input? Terry Quinn thought that the “Blue Ribbon” panel should occur later in the process. Rodey Batiza agreed, adding that he would like the “Blue Ribbon” panel to review the document before it is sent to the NRC to find vulnerabilities. Raymo indicated that SASEC would ask for the “Blue Ribbon” review after incorporation of community responses. She then asked how long the community should be given to respond. Hans Christian Larsen indicated until the beginning of September, which would give SPC an opportunity to comment during their August meeting. Catherine Mével suggested that the review continue through mid-September. Raymo indicated the community review period would run from roughly 1 August to 14 September. Larsen noted that the next SPWC meeting was in early October, so that would be good timing.

SASEC Action Item 1006-06: SASEC will send names of candidates for the "Blue Ribbon" Committee in the next two weeks to Maureen Raymo and IODP-MI. The goal is to identify a small number of prestigious scientists who would be willing to look at, and give SASEC feedback on, the next significant revision of the Science Plan. This activity is anticipated to occur in November.

Susan Humphris noted that to meet the above timeline so that the Science Plan included implementation, a group of people needed to work on the implementation plan in early September. She asked who would do that, and added that it would need some input from the IOs. Hans Christian Larsen noted that it was important to define what kind of implementation plan it would be, and that after discussion with Rodey Batiza, he thought it should include necessary technologies, examples of timelines for big projects, etc. He added that a small group could probably write it and that the group must include the IOs. Maureen Raymo indicated she thought this group should include people from IWG+, SASEC, and SPWC. Batiza noted that IWG+ gave a letter to SPWC with constraints on this issue. He indicated that he thought IODP-MI should get together with the IOs and one or two people from SASEC to talk about capabilities, facilities, timelines, etc., to outline how the science in the plan could be accomplished. Raymo asked who should write this section. Catherine Mével added that she thought IWG+ should determine who would write it. Raymo indicated that this would be discussed at the IWG+ meeting later in the week and then come back to SASEC. She added that the IOs would have to be involved and that the implementation plan must be written by September/October.

7.5. Call for proposals for new program (timing/format)

Maureen Raymo noted that it was still unknown how proposals currently in the system will be handled in the new program. She indicated that there were a couple of options currently being discussed, including deactivating all current proposals (asking proponents to submit to

the new program) or all proposals would roll over into the new program for further review. She added that there could be additional options, and showed a consensus statement from the May 2010 ECORD Science Support and Advisory Committee (ESSAC) meeting in Tromsø, Norway.

ESSAC Consensus 1005-xx: In preparation for the new program, ESSAC recommends that proponents of active IODP proposals should be invited to submit a new version of their proposal to the new program. The new proposal should take into consideration the new Science Plan and the recent scientific achievements of IODP in the relevant field.

Hans Christian Larsen noted that the last call for IODP proposals has gone out and that IODP particularly welcomes APLs and other proposals that could be added on to the remainder of the schedule that will be advertised in July, as well as proposals that would form a resource for the new program. Maureen Raymo indicated that SASEC needed to determine how to bring proposals into the new system. Benoit Ildefonse noted that discussion has indicated that proposals for the new program will mostly come through pre-proposals and workshops. He added that until the format of the new program is known, trying to determine how to transition proposals is pointless. Yoshiyuki Tatsumi asked if there would be different pathways for riser and non-riser drilling.

Maureen Raymo indicated that the agreement seem to be that it was premature to determine how proposals should come into the new program. Rodey Batiza suggested that pre-proposals could be invited from proposals currently in the system that would not be drilled before the end of IODP, adding that this would put everyone on an even playing field. Raymo asked if this would be making additional work for proposals that have already been submitted. Chris Yeats agreed that without a science plan in place it was too early to discuss this. Keir Becker noted that the Second Triennium Review committee was going to suggest pre-proposals as the preferred method, but that would not exclude initial submission of a full proposal. Gabe Filippelli added that everyone needed to keep in mind the proposals currently at OTF that would not be drilled, as well as the proposals at SPC, as he would hate to see those go all the way back to the beginning when they could be used to start the new program. Catherine Mével noted that ESSAC suggested taking the proposals at OTF and giving them to the new SAS to be drilled during the first year of the new program. She added that the real problem is what to do with proposals currently at SSEP.

Maureen Raymo indicated that this is a topic SASEC should revisit at the January 2011 meeting. Catherine Mével added that it is very important to inform the community of when they will be able to submit new proposals and if existing proposals will be considered. Benoit Ildefonse agreed, noting that people in the community have been asking if they should submit a new proposal now or wait for the new program. Mével noted that a timeline just needed to be developed. Gabe Filippelli added that the plan right now in SPC is to work with SSEP to identify a small pool of mature proposals that can be included in the pool for the first year of the new program. The remainder of proponents will be told that their proposal will not be considered among this pool and that they will soon receive guidance on how to proceed. Raymo asked Filippelli to put this into a consensus statement.

SASEC Consensus 1006-07: SASEC asks SPC to develop a plan for reviewing the pool of proposals currently within SAS and identifying those high priority proposals, with respect to the current ISP and the Science Plan for the new program, which will be considered for the first phase of scientific ocean drilling in the new program. SPC should finalize the plan at

their August 2010 meeting and engage SSEP in this review process during their November 2010 meeting. SASEC would like to review the results of this proposal transition process at their January 2011 meeting.

Hans Christian Larsen noted that the community will need to know how these proposals are selected. Catherine Mével indicated that IWG+ has been thinking about this, and that science quality and readiness in terms of site survey are very important. She added that they should also fit with the new science plan. Maureen Raymo added that SASEC could indicate that we expect the new SAS structure to be determined by January 2011. Larsen asked what the SPC timeline was for this review. Gabe Filippelli indicated that SPC would develop criteria at the August meeting and charge SSEP with carrying out the review at their November meeting. The SPC could then discuss via email in January or wait until the March meeting to finalize. Larsen added that then a call for new proposals could possibly be issued in April, with a deadline of October 2011.

Maureen Raymo asked Rodey Batiza to say a few words about NSF's request to the NRC to appoint an ad hoc committee to review the scientific accomplishments of US-supported scientific ocean drilling. Batiza indicated that the committee has been formed and is co-chaired by Bob Duce and Arthur Goldstein, with 13-14 members, some of whom are familiar with the drilling program. He added that Duce has never been involved with the program and should be objective. They have several meetings scheduled and hope to have a report ready about the same time that the final science plan is released. Yoshiyuki Tatsumi asked if there were any other reviews being planned. Catherine Mével noted that ESSAC is doing the same, but the committee is not set yet. Shingo Shibata indicated that he did not know if MEXT was going to do something like that.

8. Renewal of Integrated Ocean Drilling Program website

Jan Willem de Leeuw reported on renewal of the IODP website. He noted that in January, as a newcomer to SASEC, he went to the IODP website for information and was confronted with a lot of letters and acronyms. After the January SASEC meeting, he spoke with Kiyoshi Suyehiro about the website and came up with a few suggestions. He suggested having a list of bodies and a diagram to show how they fit within the program and interact with each other. This should be included in the first layer of the website so that newcomers can orient themselves to the program. He also noted that more pictures of the ships should be available on the website. He suggested including flow charts for how to create proposals, both simple (*JR* and *MSP*) and complex (riser and multi-leg/ship expeditions). He added that it is important to have this information in the first layer of the website and to keep the graphics as simple as possible. Jan Willem de Leeuw noted that the website is the first encounter for many outside organizations. He added that there is a need to close the gap between the scientific community and the IODP community. He asked when and how these changes could be accomplished.

Hans Christian Larsen responded that since the last SASEC meeting, IODP-MI has been working on a project with the current vendor hosting the website to migrate everything into a different format, which will make it easier to manage in the future (but will not change the current layout). He added that IODP-MI is very aware of the issues with the website, but noted that it will take a long time (possibly a year) to make all of these changes. He indicated that IODP-MI has included time and money in the next budget plan for this, but really thinks it will take 12 months to see all changes implemented.

Maureen Raymo noted that by fall there will be a new name for the program and thought that the website for the new program will be an even bigger priority. Hans Christian Larsen indicated that until a new program is funded, the new webpage would be part of the current website. Raymo replied that she thought it very important to have a separate website and that it should look different from the current program website. Larsen indicated that the domain could be bought right away, and that maintaining it would be easy at first, but become more intensive as there are more things to be added. Jan Willem de Leeuw indicated he thought really only the first and possibly second layers of the current website needed to be changed. Larsen replied that this could be done more quickly, and asked what SASEC thought about being able to click on different entry points depending on if you are a scientist, media, etc. de Leeuw indicated he wanted the first page to show a map with ongoing expeditions. Larsen thought that could be accomplished before the next SASEC meeting. Jamie Allan clarified that de Leeuw was asking for an overlay for the current website; one that would give critical information up front, but then power users would be able to easily access the backend content. Raymo noted that SASEC could get an update on progress at the next SASEC meeting. Benoit Ildefonse further added that when you Google IODP.org, you have to go beyond the first page to find out what the program is, adding that he thought this information should be available on the first page.

Maureen Raymo pointed out that there is now an IODP page on Wikipedia, but that it only has one picture of a ship at the moment. She added that IODP should consider shepherding the article. Benoit Ildefonse added that IODP is also on Twitter and Facebook, and that many people go to those websites for information. Hans Christian Larsen added that IODP-MI has had a position vacant for Education and Outreach for a long time and asked everyone to spread the word.

9. Reports of committees assessing models for post-2013 proposal evaluation process

9.1. Status of Second Triennium Review committee

Hans Christian Larsen presented an update of the Second Triennium Review committee. He noted that the report had been sent to the BoG and that Ian Macgregor (committee chair) would present the report to the BoG on Wednesday. He showed a summary of the mandate for the review panel, which included looking into the effectiveness of the IODP science planning process and SAS functionality, as well as helping to focus discussion for the structure of the future program.

Hans Christian Larsen noted the resources the committee used to make their assessment, including the First Triennium Review report, previous SAS reviews, the BoG ad Hoc Review Committee report, science evaluation structures from other programs (e.g., ICDP), and opinions from a number of individuals involved with the program. He showed the committee schedule, noting that the initial draft was submitted in early June and would be discussed at the BoG meeting on Wednesday. The final report should be completed by early July and will be submitted to NSF by late July or early August. Larsen noted that this report could play a role in development of the new SAS structure. Catherine Mével asked why a copy would not go to IWG+. Larsen indicated that she should ask the BoG to make it public. Maureen Raymo added that SASEC would not know what the recommendations were.

9.2. International Working Group Plus review committee recommendations

Christ Yeats noted that nothing new had been done by this review committee since the January meeting. He added that they are waiting for the Second Triennium Review committee response, and that they have had a number of interactions with this committee.

9.3. Review of SASEC “Keir Report”

Keir Becker noted that the report from this committee was submitted in January. He gave a quick overview of what the committee thought the new structure should look like. Their recommendation was that the new SAS should be simpler, with two committees for proposal evaluation. He added that there should be more effort placed into early proposal development and nurturing through workshops and possible SAS working groups prior to full proposal submission. The committee also recommended that single expedition *JR* and MSP proposals could be evaluated with a common process/pathway, whereas planning for riser and/or long-term, multi-expedition nonriser projects needed a separate pathway. Becker added that the Second Triennium Review committee presented general information to SPC, and so he gave a brief summary of that presentation. He noted that the Second Triennium Review recommendations are very similar to those of the SASEC subcommittee. He added that the Second Triennium Review has suggested names for the new panels: the Science Evaluation and Selection Panel (SESP) and the Science Executive Authority (SEA)

9.4. SASEC recommendations to IWG+ for transitioning to new SAS structure

Keir Becker showed recommendations for the transition to the new SAS structure. He noted that IWG+ and SASEC (possibly a subcommittee) should write mandates and procedures for interim SAS in 2010 and put it in place by 2011. By 2011, nearly all IODP ranking and scheduling should be completed, at which point IODP SAS panels would be phased out; the last SSEP meeting may be in November 2010, with the last SPC meeting in March or August 2011. The current SSEP/SPC could make the initial choice for which proposals currently in the system should be forwarded to the new system. He also suggested a call for new proposals be issued in late 2010. Becker noted that since all three committees that have proposed new SAS structures have very similar ideas, writing of the mandates should begin now. Benoit Ildefonse agreed, reminding everyone how long it took to write the mandates during the transition from ODP to IODP.

Maureen Raymo requested comments on these points and whether or not SASEC should form a new subcommittee. Rodey Batiza indicated that he liked the idea of a subcommittee, but added that they needed to begin thinking about the new executive board so that they can approve the mandates. Raymo asked if IWG+ would be who made the final decision on the final structure of the new program. Batiza indicated that was correct. He added that IWG+ would like input, and that he thought a subcommittee would be really helpful sketching out key elements for a mandate for the evaluation and implementation panels.

Maureen Raymo noted that she thought the subcommittee should consist of four people. She nominated Keir Becker (as chair), and then opened the floor for further nominations. She added that Gabe Filippelli would bring valuable insight into the SAS structure. Jan Willem de Leeuw volunteered to help, as did Yuki Yoshi Tatsumi. It was later determined that Shoji Arai would act as the Japanese representative on the subcommittee.

SASEC Action Item 1006-08: A subcommittee of Keir Becker, Jan Willem de Leeuw, Gabe Filippelli, and Shoji Arai await guidance from IWG+ and the Second Triennium Review Committee on drafting of new SAS committee mandates. This action will occur over the course of the next few months with draft mandates circulated to SASEC as the time frame defined by IWG+ demands but certainly by the January 2011 SASEC meeting.

Maureen Raymo noted that SASEC would like to see the Second Triennium Review committee report as soon as it is available. She added that the IWG+ meeting minutes would

be available on the Internet for those unable to attend the meeting. She indicated these would be the starting point for the subcommittee, but asked how the subcommittee would know when to act. Rodey Batiza indicated that Raymo, as chair of SASEC, could ask the subcommittee to begin writing the mandates for the two new panels as soon as SASEC had access to the report. Raymo indicated that she will send an email to SASEC, addressed to the subcommittee, to initiate the process. She noted that it would be helpful to have a better understanding of how people envision the new SAS structure.

Maureen Raymo asked if SASEC should discuss specifics of phasing out SAS committees. Keir Becker noted that in January they suggested that once the new structure was established, new mandates should be written before starting transition. Rodey Batiza added that IWG+ would not be working on the mandates. Raymo asked if there was something that SASEC could usefully do right away to help the process move forward. Batiza noted that the exact schedule for the transition was vague, and added that there needed to be terms of reference for each of the new committees. He indicated that it was up to IWG+ how to accomplish this. Catherine Mével noted that IWG+ would discuss this topic during the meeting later in the week.

Tuesday	15 June 2010	9:00-12:30
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10. Workshops in Fiscal Year 2011: Budget and Process

Hans Christian Larsen presented the workshop report. He noted that in the APP for FY11, \$180k was set aside for workshops and \$50k for scoping groups. He indicated that while the *JR* was being renovated, a number of workshops were held, in part planning for the rest of the program. He added that at this meeting SASEC needed to discuss the nature of workshops; should they be broad and thematic, directed at long-range planning, or focused on specific targets? He added that they needed to determine if workshops should result in new proposals. Larsen added that they needed to determine if scoping groups would work with only full, accepted proposals or be a mechanism to take generic (or pre-proposals) to full proposal stage. He indicated that since workshops and scoping groups use commingled funds, they require SASEC permission.

Keir Becker agreed that workshops should be used for planning for the future, especially since the new program will rely more on workshops. Susan Humphris asked Gabe Filippelli if there had been any discussion at SSEP or SPC about topics for workshops. Filippelli replied that there was the JPPG on hominid evolution and climate that he mentioned yesterday. He added that there was some interest in helping the proponents of Proposal 672-Full3 Baltic Sea Basin Paleoenvironment get the proposal ready to go. Hans Christian Larsen noted that Detailed Planning Group (DPG) workshops are used when there are a number of proposals already in the system that address a common theme, which does not apply to the climate/hominid evolution JPPG. He added that these are paid for by non-IODP funds, so the burden for financing them is carried by the Program Member Offices (PMOs).

Yoshiyuki Tatsumi asked for clarification of the difference between a workshop and a scoping group. Hans Christian Larsen replied that a scoping group is for an existing proposal that needs additional scoping to be ready to drill. Tatsumi asked if scoping groups are formed through request by SPC. Larsen indicated that it could be left up to IODP-MI, but that he preferred that SAS be involved.

Maureen Raymo noted that a clear workshop topic is climate and human evolution, which is designed to cross the boundary between land and sea and build bridges to ICDP. She added that this would be a positive message that SASEC could send to IODP-MI if all agreed this should be a workshop. Gabe Filippelli clarified that SPC envisioned this as a small group, since ICDP had recently held a workshop on the topic. Raymo asked if the small size would preclude it from being termed a workshop. Filippelli noted that he had approached the PMOs and they were open to the idea of providing travel support for some members. Terry Quinn asked if this group would deal with the political realities of working in some of the areas in and around Africa. Filippelli responded that they were currently working on the mandates and that it was clear that the political situation would need to be addressed. Susan Humphris added that there was a figure in the current science plan draft that showed sites currently impossible to drill due to piracy.

Maureen Raymo asked if SPC would like there to be a scoping for Proposal 672-Full3 Baltic Sea Basin Paleoenvironment. Gabe Filippelli responded that one of the SPC European members already agreed to be a consultant to the proponents, but he thought more needed to be done. He added that if SASEC voiced support for this that it could help IODP-MI get this going more quickly. Hans Christian Larsen agreed, noting that it could then be discussed at OTF.

Chris Yeats suggested a possible Indian Ocean focus for a workshop, as it has been under-drilled and could encourage participation by India. Maureen Raymo noted that this is a consensus SASEC could send to IODP-MI if all agreed. Keir Becker noted that in the past they have set up a procedure for workshops where IODP-MI would advertise the availability of workshop funds and bring the response to SASEC, who would then make comments. Becker suggested that the advertisement could mention thematic or regional workshops. Raymo added that they could strongly encourage people to submit suggestions for an Indian Ocean workshop. Hans Christian Larsen noted that in the past, IODP-MI had a bigger budget and more time. He noted that by following the old procedure they could run out of time. Susan Humphris agreed that it would be good to open it up to the community for suggestions, especially since the new draft Science Plan would be released soon.

Jeff Schuffert noted that Ocean Leadership also has funding for workshops (enough for approximately two), with the next deadline in October. Catherine Mével added that Europe has the Magellan workshop program and that people can submit proposals to that. Yoshiyuki Tatsumi added that the Japan Drilling Earth Science Consortium (J-DESC) has a similar program.

Maureen Raymo noted that there has been interest in having an upcoming SASEC meeting in India. She added that at the AGU meeting there was a workshop describing how to become involved in IODP. Raymo indicated that Charna Meth has been working with the Indians to potentially hold a workshop in India, but they are waiting for the new Science Plan to be released first. Raymo suggested that it could be good to hold the June 2011 SASEC meeting in India in association with a workshop.

Maureen Raymo asked Susan Humphris to draft a consensus indicating that IODP-MI would work with SPC to hold a hominid-climate mini-workshop and to form a Baltic Sea scoping group. The statement should also request that the community submit proposals for workshops and indicate that an Indian Ocean workshop would be favorable. Humphris indicated that the call for proposals should be general. Keir Becker asked if the climate-hominid evolution

group was a program planning group or a workshop. Gabe Filippelli responded that SPC asked for a JPPG, not a workshop, and that the group would specifically report back to SPC, likely in March 2011. Jeff Schuffert noted that a JPPG did not preclude holding a broader workshop on a similar topic.

Hans Christian Larsen summarized the consensus so far: a scoping group for Baltic Sea Paleoenvironment be formed through OTF and the SPC chair, whereas workshops be advertised on a competitive basis. Kiyoshi Suyehiro added that it was not clear if workshop topics should be thematic or broad. Larsen agreed and indicated that they needed to give people an idea of what kind of workshop proposals they are looking for. Keir Becker suggested that the workshop subjects be based on the new Science Plan, with emphasis on planning for the new program. Suyehiro noted that these workshops should be in preparation to be adaptable to the new program. Maureen Raymo agreed, indicating that these workshops could begin working as the new SAS will work. Terry Quinn suggested that advertisement for the workshops be drafted after the Science Plan has been released. Larsen agreed, but noted that it puts IODP-MI on a tight schedule for implementing the workshops in FY11.

Chris Yeats noted that nine months ago a number of thematic workshops were held during INVEST; he did not think it necessary to do the same thing again so soon. He suggested that these workshops be used to look at gaps in the current program (such as observatories or the Indian Ocean). Maureen Raymo noted that Keir Becker suggested that workshop ideas should come from the community. She suggested that all SASEC members should feel comfortable going to the community and suggesting that they put in a request for an observatory or Indian Ocean workshop. Hans Christian Larsen shared some of Yeats' concerns, indicating that they would need to work with mature proposals to start the new program. He added that a workshop would be a good way to get new proposals in the system quickly.

SASEC Consensus 1006-09: SASEC endorses the invitation by SPC to the International Continental Scientific Drilling Program (ICDP) to create a Joint Program Planning Group focused on increasing scientific understanding of the role of past climates in influencing hominid evolution.

SASEC Consensus 1006-10: Based on discussion of potential workshops and scoping groups for FY11, SASEC makes the following recommendations:

- 1) A scoping group be formed to refine Proposal 672-Full3 Baltic Sea Basin Paleoenvironment as suggested by the SPC Chair.
- 2) Requests for workshop proposals be solicited from the scientific community for FY11 that have an emphasis on scientific topics that prepare for the new scientific ocean drilling program.

11. SASEC recommendation to the Board of Governors regarding planning through end of program

Maureen Raymo noted that there was a SASEC consensus during the January 2010 meeting, asking SPC/OTF to present at this meeting a small number of alternative drilling schedules for the remainder of the program.

SASEC Consensus 1001-04: SASEC requests that SPC/OTF develop and present to SASEC in June 2010 a small number of alternative drilling schedules for the remainder of IODP through 2013 that incorporate the highest priority science to be completed before the end of the program.

The first-order guiding principle for recommending expeditions for scheduling by 2013 should be scientific excellence, and a very high likelihood of having a major scientific impact in an ISP theme or initiative.

Other guiding principles, consistent with the 2008 SASEC Implementation Plan for IODP Expeditions 2008-2013, include:

- Accomplishing the best and most exciting science consistent with the program's resources
- Demonstrating an integrated and interdisciplinary approach
- Meeting objectives of high societal relevance.

In developing the alternative scheduling scenarios, SPC/OTF should:

- 1) Review and evaluate how well each theme and initiative of the Initial Science Plan has been addressed to date, what specific questions have been answered, and what specific questions remain;
- 2) Identify which proposed drilling projects that are mature enough to be scheduled between 2011 and 2013, could make a significant contribution to accomplishment of a major ISP theme or initiative, thereby helping build the case for renewal;
- 3) Consider from a strategic perspective which proposed drilling projects should be part of the drilling schedule to best position IODP for its successor program.

11.1. Operations Task Force scenarios

Hans Christian Larsen presented the OTF drilling scenarios to the end of the program. He noted that SPC met in March to review and forward proposals to OTF, knowing that OTF needed many proposals to work with. He indicated that OTF met in April with this charge to develop drilling scenarios as the primary agenda plan. He noted that they considered all proposals residing at OTF and SPC, as well as several that could be forwarded to SPC soon. Larsen indicated that the SPC chair reported the results to SPC via email for discussion and comment prior to the current meeting.

Hans Christian Larsen noted that OTF worked within a number of guidelines to produce possible schedules. These were that there would be two MSP operations, with at least one low-cost option; NanTroSEIZE would have high priority and must have approximately five months of riser drilling per year; and that the *JR* would have eight months of drilling per year. He added that OTF considered many options, but in the end chose one to forward to SASEC and the BoG.

Hans Christian Larsen presented the *Chikyu* three-year plan, noting that NanTroSEIZE was the priority until the end of the program, with some exceptions in FY10/11. He noted that Proposal 601-Full3 Okinawa Trough Deep Biosphere would be drilled in FY10 and that Proposal 745-CPP Shimokita Coal Bed Biosphere would likely be drilled in FY11. He added that during FY10 there would be preparation for the deep riser hole, including observatory installation, as well as conducting Proposal 738-APL Nankai Trough Submarine Landslides. In addition, CDEX would be planning for CRISP B and Mohole, noting that the former could

be one of the first *Chikyu* expeditions in the new program. Keir Becker asked if this program would complete NanTroSEIZE. Larsen replied that the Project Management Team (PMT) was currently meeting in Bremen to discuss the plans.

Hans Christian Larsen indicated that three options were discussed for MSP operations, and that OTF chose Option M by consensus. He noted that this option gives the opportunity to address Proposal 548-Full3 Chicxulub K-T Impact Crater. During FY11 a hazard site survey would be conducted; this is a relatively small cost and would help determine if IODP could receive permission to drill there. He added that if all went well, Chicxulub would be drilled during FY12. This would require a low cost option for FY13. Currently there is only one available at OTF: Proposal 581-Full2 Late Pleistocene Coralgall Banks, which is not high priority, but other options could be available by FY13, including Proposal 672-Full3 Baltic Sea Basin Paleoenvironment or 748-Full2 Nice Airport Landslide.

Maureen Raymo indicated that she had heard that Proposal 716-Full2 Hawaiian Drowned Reefs was not feasible. Hans Christian Larsen replied that was not entirely true, but that following poor recovery during the Great Barrier Reef Environmental Change expedition that ESO was worried about recovery at Hawaii. He added that the Hawaiian Drowned Reefs proposal also had a large range of water depths that could require two different platforms, and also had a narrow operational window due to whales. Robert Gatliff noted that ESO is continuing to scope Hawaii in case the Chicxulub proposal will not occur. Larsen added that at OTF they noted that there have been a number of sea level studies and that it would be nice to do something different. Jamie Allan asked Gatliff if Hawaii required an environmental assessment or a full-blown environmental impact survey. Gatliff replied that he was not sure yet, but should have a better idea by the August OTF meeting. Larsen asked Gatliff if they had been in contact with the proponents about the water depth issued. Gatliff indicated that they had been and had received one response. Susan Humphris asked what happened to Proposal 637-Full2 New England Shelf Hydrogeology. Larsen noted that it is in the holding bin, adding that it was discussed at OTF, but they determined it would not be ready to drill before the end of the program. He added that it would be very expensive and that it could require a scoping group to prepare it for drilling during the new program.

Hans Christian Larsen noted that a number of scenarios were discussed for the *JR*. He showed the FY12 options considered, noting that Mid-Atlantic Microbiology was already on the schedule, and would most likely be followed by Mediterranean Outflow in FY12. Larsen indicated that the options included spending the year in the Atlantic or returning to the Pacific, with varying amounts of transit for each scenario. He also showed the FY13 scenarios considered, some of which included going to the western Pacific and Indian Oceans. He noted that these options require a lot of transit, but added that it was important to include Asian monsoon before the end of the program.

Hans Christian Larsen showed the recommended schedule from OTF, noting that the *JR* would leave the Atlantic very quickly in FY12. He noted that Cascadia and Costa Rica Mud Mounds (CRMM) are both CORK expeditions, which would be very expensive and also result in more than eight months of ship time during FY12 to implement both. He noted that the USIO was concerned about raising expectations in the community and also had indicated that the CRMM expedition would take longer than what is shown on the recommended schedule. Larsen added that OTF had indicated that Cascadia would have priority if only one CORK expedition could be implemented because of the linkage to the Neptune cable network. He further added that the CRMM group could get funding for their CORKs, but

would need to know if they are on the schedule before pursuing it. Jamie Allan noted that one of the problems with CORKs is the long-term funding commitment required for monitoring, and that the CRMM proponents need to be asked what their strategy for long-term monitoring is. Larsen agreed and noted that Cascadia has the same issue.

Hans Christian Larsen showed the FY13 recommended schedule, which includes two expeditions in the western Pacific, including Asian Monsoon, and also Bengal Fan and a to-be-determined expedition in the Indian Ocean. He noted that there is a significant amount of transit time in this schedule (approximately 24%). Larsen indicated there were only two viable options for drastically reducing transit time: do not go to the Atlantic (unacceptable, as Mid-Atlantic Microbiology is already on the schedule) or do not cross the Pacific and therefore end the program in the eastern Pacific. The latter option would exclude the Asian monsoon proposals and the Indian Ocean, which has not been drilled during IODP. Larsen noted that it would reduce transit time to around 15-17% and possibly offer more options for non-IODP work. It would also result in less demobilization time for the *JR*, should the new program not be funded.

Keir Becker noted that the transit issue also depends on non-IODP work, as in the past there has been potential opportunities with Korea and Indian hydrates. Maureen Raymo asked if decisions should be based on the possibility of non-IODP work or the best science. Jamie Allan responded that if you save the *JR* day rate for a couple of months through non-IODP work, it provides enough money for an extra expedition or observatories. He added that in the past there was non-IODP work with Japan and also with India, and that there are reasonable opportunities in the Gulf of Mexico and Hatton Bank.

11.2. Science Planning Committee comments on Operations Task Force scenarios

Gabe Filippelli noted that IODP-MI allowed additional SPC members to attend the April OTF meeting. Originally six were slated to attend, although one was stuck in Wyoming in a snowstorm, but provided comments via email. He added that SPC members had a lot of input at the meeting about the highest science priorities, and after the meeting approximately two-thirds of SPC members commented on the recommended schedule. The SPC indicated that the recommended schedule is high impact and has high societal relevance because it supports the Monsoon DPG, it includes one expedition that investigates the linkage between climate and tectonics (South Alaska), microbiology is covered in the FY11 schedule, and it also touches on ocean crust formation and destruction.

Gabe Filippelli noted that during the post-OTF discussion, some SPC members suggested some adjustments, acknowledging that these could change depending on funding availability and ship track, but that some excellent proposals should remain in consideration, including Proposals 681-Full2 Lesser Antilles Volcanic Landslides and 551-Full Hess Deep Plutonic Crust. The SPC also noted that the MSP options could be more open in the future with new proposals, including Proposals 672-Full3 Baltic Sea Basin Paleoenvironment or 748-Full2 Nice Airport Landslide. Filippelli added that SPC was in general happy with the MSP recommended schedule, and that having the Chicxulub hazard survey this year gives more options for the remainder of the program.

Gabe Filippelli concluded by noting that SPC is generally happy with the recommended schedules, and that they would be unenthusiastic about the low-transit scenario Hans Christian Larsen mentioned. Maureen Raymo asked if SPC was happy despite the lack of the Hess Deep and Lesser Antilles in the schedule. Filippelli replied that they were, but if there

were changes to the schedule, those would be preferred additions. Benoit Ildefonse asked why SPC would be unenthusiastic about the lower transit time scenario. Filippelli replied that this scenario would mean no Asian monsoon and no presence in the Indian Ocean.

11.3. Science Advisory Structure Executive Committee discussion and conclusion

Maureen Raymo opened up the floor for discussion by SASEC about the recommended schedules, noting that transit time, non-IODP work, and a presence in the Indian Ocean would be good topics to begin with. Benoit Ildefonse noted that the transit penalty needed to be taken into account, as many in the community think the ship has wasted too much time to transit during IODP. He added that there could be a lack of enthusiasm for doing only two expeditions in the Atlantic before returning to the Pacific, especially since there are other Atlantic options. Hans Christian Larsen noted for clarity that the low transit option he showed has not been scoped, but is just an example of a possible way to better balance transit vs. science.

Maureen Raymo asked if it would be possible to spend more time in the Atlantic and still make it to the Indian Ocean before the end of the program. David Divins replied that they basically were mutually exclusive; if you spend a full year in the Atlantic, getting to the Indian Ocean would require a lot of transit during FY13. Raymo noted that SASEC needed to determine if they really wanted to end the program in the Indian Ocean. Hans Christian Larsen added that a decision about FY12 needed to be made right away. Jamie Allan noted that if the program were to end in the Indian Ocean and was not renewed, an expedition could be lost due to the time necessary to transit back before the end of FY13. He suggested having a Plan A (go to Indian Ocean) or Plan B (do not go to Indian Ocean if the program is not renewed), adding that more should be known in 6-12 months. Rodey Batiza added that if the National Science Board is approached in 2011, it is likely that we will not know if the program is renewed before 2012.

Keir Becker noted that the BoG ask for options, not a final schedule. He agreed with Gabe Filippelli that high impact science is important and that the Asian monsoon has always been a priority. Susan Humphris agreed that the SPC assessment of high science impact was correct, and also agreed with Jamie Allan's Plan A/B suggestion. She noted that making progress on the monsoon would be important for possible future member participation. Jan Willem de Leeuw asked if going to the Indian Ocean and fulfilling part of what has not been done in the ISP would enhance the possibility of renewal, noting that if so that would be another good reason for Plan A. Rodey Batiza replied that it was really hard to say, especially since the NRC study would be completed before FY13. He added that they would be sure to tell the National Science Board what options for completion of the program were on the table. Terry Quinn noted that it would not be good to leave out part of the ISP when there was an opportunity to do it. He added that it was also really important for SASEC to look at the transit issue, but that the program is dedicated to doing the highest impact science. Maureen Raymo noted that there seemed to be general consensus for ending the program in the Indian Ocean, which included high priority and high impact science. Several SASEC members voiced caution about wording, as all proposals at OTF are high priority.

Maureen Raymo returned the discussion to the issue of how much time to spend in the Atlantic. David Divins noted that to transit directly from the Atlantic Ocean to the Indian Ocean would require going through the Suez Canal, which is a security issue. Raymo indicated that SASEC should look to SPC for guidance on what would be gained in the Atlantic but lost in the Pacific. Gabe Filippelli noted that this was discussed; staying in the

Atlantic would add the Newfoundland proposals, but would preclude the Asian monsoon. There was further discussion of the Suez Canal, as Susan Humphris noted that Woods Hole Oceanographic Institute had used it in the past. Ultimately it was decided that the situation was less secure now and that the Suez Canal was not a viable transit option. Hans Christian Larsen noted that OTF really just needed a statement from SASEC about what the *JR* should be doing, and then OTF could work with issues such as weather windows and security to develop the best possible schedule.

Maureen Raymo noted that ending the program in the Indian Ocean seemed to be a unanimous agreement. She asked if there were any other issues that needed to be discussed regarding the recommended schedules, adding that some members were conflicted on some proposals, so all should be careful what they say. Susan Humphris noted that SASEC needed to make some sort of comment on the preferred option for FY12, unless that was predetermined by the Indian Ocean priority in FY13. Hans Christian Larsen noted that the most important thing was for OTF to know that the program should go to the Indian Ocean. He added that SASEC could make a general statement that OTF consider all proposals in the August meeting. Terry Quinn added that microplanning of FY12 should be left to OTF and SPC, who are quite cognizant of weather windows and science priorities. Raymo asked if anyone disagreed or wished to elaborate on Quinn's point. Jan Willem de Leeuw noted that SASEC could add that the main criteria for remaining in the Atlantic or returning to the Pacific for FY12 be fulfillment of the ISP. Raymo asked Humphris and de Leeuw to write consensus statements regarding the recommended schedules.

SASEC Consensus 1006-11: SASEC has reviewed the alternative drilling scenarios for the remainder of IODP through 2013 that have been developed by SPC/OTF in response to SASEC Consensus 1001-14, and thanks them for the considerable effort they have put into completing this task. While SASEC understands there are transit penalties in going to the Indian Ocean, the committee strongly endorses the inclusion of drilling of Proposals 605-Full2 Asian Monsoon and 552-Full3 Bengal Fan before the end of the program. These address high priority scientific objectives of the Initial Science Plan (ISP) and important societal problems.

The recommended schedule for the *JOIDES Resolution* for FY12 should be based on completing the ISP in the best way possible.

12. Review of rotation schedule for SASEC members

Hiroshi Kawamura showed the IODP-MI understanding of member rotations, indicating that Kenji Kato and Yoshiyuki Tatsumi were rotating off after the current meeting. He noted that if the schedule was not correct, to let IODP-MI know.

13. Other business

Maureen Raymo asked if there was any other business. Chris Yeats, building on the previous discussion about a possible Indian Ocean workshop, indicated that the Indian delegates had a meeting in January. He suggested that the SASEC chair should try to email those delegates to try to engage them, especially if there could be a workshop or meeting held in India.

14. Review of action items, motions, and consensus statements

The SASEC reviewed the consensus statements, motions, and action items from the meeting, making final corrections to wording. In addition, Kenji Kato and Yoshiyuki Tatsumi were both thanked for their contributions to SASEC.

SASEC Consensus 1006-12: Dr. Kenji Kato is a microbial ecologist and has mostly no geoscience educational background in his career. However, he has made invaluable contributions to iPC, SPC, and SASEC through his thoughtful comments and wise counsel. During these experiences, he has become an excellent geoscientist in addition to his biological background. Today Kato-san graduates from SASEC, but we hope that he will promote microbiological work in IODP and develop deep biospheric collaborations with geoscientists.

SASEC Consensus 1006-13: The SASEC deeply thanks Yoshiyuki Tatsumi for his 3-year service as a key member of our committee. Tatsumi-san (Yoshi), based on his profound and unrivaled understanding of the subduction factory and related Earth evolution, has been leading the IODP community for these years. We sincerely look forward to seeing his further contributions to the international ocean drilling program beyond IODP, especially in restructuring its new international framework, as well as to successful completion of Izu-Bonin-Mariana deep drilling.

We also deeply thank Tatsumi-san for organizing our meeting in this worldwide historic city, Kyoto, where he started his brilliant career when he was a student at Kyoto University. We all are enjoying the whole of the fantastic atmosphere of Kyoto, produced during its long history.

15. Future meetings

Maureen Raymo noted that it was not clear to her which panel determined the date and location for the next meeting. She indicated she had spoken to Hans Christian Larsen about holding a SASEC meeting in India, and that it would be nice to do it in conjunction with a workshop or proposal writing class, possibly in June 2011. She added that the other invitation that had been extended was to meet in Miami in January. Keir Becker added that he was willing to host the meeting, although it was technically Europe's turn.

Catherine Mével noted that since IWG+ and SASEC usually meet at the same time, ECORD is offering to host the next IWG+ meeting in Europe. Maureen Raymo indicated that this meeting would be in January and that since it is time to rotate to Europe, this would be preferred. She asked meeting attendees if Europe was acceptable. Rodey Batiza indicated that the senior panel should make the decision, which would be SASEC for the January meeting. He suggested thanking Keir Becker for his offer, and hold the meeting in Miami. Raymo added that the Europeans might also prefer Miami in January.

Keir Becker noted that there was also a planning workshop in Oman in January. Benoit Ildelfonse added that the provisional dates for the workshop could conflict with SASEC. He asked if it would be feasible to organize the SASEC/IWG+ meeting in Oman at the same time as the workshop. John Ludden noted that the research council might see this as wasting money. Hans Christian Larsen added that it would be best to have the meeting in an IODP member country, and that it was also good to have a local host, otherwise it adds a significant amount of work for IODP-MI. After further discussion to set the date, it was decided that the next meeting would tentatively be held the week of 17 January 2011 in Miami.

16. Closing Remarks

Maureen Raymo noted that the afternoon joint session began at 15:00. She adjourned the meeting at 12:23.

Appendix: Acronyms and Abbreviations

AGU	American Geophysical Union
APL	Ancillary Project Letter
APP	Annual Program Plan
BoG	Board of Governors
CDEX	Center for Deep Earth Exploration
CMO	Central Management Office
CoI	Conflict of Interest
CORK	Circulation Obviation Retrofit Kit
CPP	Complimentary Project Proposal
CRISP	Costa Rica Seismogenesis Project
DCO	Deep Carbon Observatory
DPG	Detailed Planning Group
ECORD	European Consortium for Ocean Drilling Research
EMA	ECORD Management Agency
EPSP	Environmental Protection and Safety Panel
ESO	ECORD Science Operator
ESSAC	ECORD Science Support and Advisory Committee
FY	Fiscal Year
ICDP	International Continental Scientific Drilling Program
INVEST	IODP New Ventures in Exploring Scientific Targets
IO	Implementing Organization
IODP	Integrated Ocean Drilling Program
IODP-MI	Integrated Ocean Drilling Program, Management International
ISP	Initial Science Plan
IWG+	International Working Group Plus
J-DESC	Japan Drilling Earth Science Consortium
JAMSTEC	Japan Agency for Marine-Earth Science and Technology
JPPG	Joint Program Planning Group
<i>JR</i>	<i>JOIDES Resolution</i>
LA	Lead Agency
MEXT	Ministry of Education, Culture, Sports, Science and Technology
MOU	Memorandum of Understanding
MSP	Mission Specific Platform
NanTroSEIZE	Nankai Trough Seismogenic Zone Experiment
NRC	National Research Council
NSF	National Science Foundation
ODP	Ocean Drilling Program
OOI	Ocean Observatories Initiative
OTF	Operations Task Force
PMO	Program Member Office
PMT	Project Management Team
POC	Platform Operating Costs
PRL	Proponent response letter
SAS	Science Advisory Structure
SASEC	Science Advisory Structure Executive Committee
SEA	Science Executive Authority
SEDIS	Scientific Earth Drilling Information System
SESP	Science Evaluation and Selection Panel

SIO	Scripps Institution of Oceanography
SOC	Science Operating Costs
SPC	Science Planning Committee
SPWC	Science Plan Writing Committee
SSEP	Science Steering and Evaluation Panel
SSP	Site Survey Panel
USIO	US Implementing Organization