# **IODP Science Planning Committee**

# 18<sup>th</sup> Meeting, 22-24 August 2011 Zao, Miyagi, Japan

#### Science Planning Committee - SPC

Donna Blackman Scripps Institution of Oceanography, USA Hans Brumsack <sup>6</sup> Universität Oldenburg, Germany Daekyo Cheong (non-voting) Kangwon National University, Korea

**Robert Dunbar** Stanford University, USA

Javier Escartin CNRS Institut de Physique du Globe, France

David Feary Arizona State University, USA

Gabriel Filippelli (Chair) Indiana University-Purdue University Indianapolis, USA

Gretchen Früh-Green ETH Zurich, Switzerland

Stephen Gallagher <sup>c</sup> (non-voting) University of Melbourne, Australia Barbara John University of Wyoming, USA Takeshi Kakegawa Tohoku University, Japan

Junzo Kasahara (Vice chair) University of Tokyo, Japan

Junichiro Kuroda d Japan Agency for Marine-Earth Science and Technology

Chunfeng Li (non-voting) Tongji University, China

Hirokazu Maekawa Osaka Prefecture University, Japan

Richard Murray Boston University, USA Hiroshi Nishi <sup>6</sup> Tohoku University, Japan

Heiko Pälike National Oceanography Center, Southampton, UK

Ashok Singhvi Physical Research Laboratory, India **David Smith** University of Rhode Island, USA

**Ruediger Stein** Alfred-Wegener-Institute for Polar and Marine Research, Germany

Ryuji Tada University of Tokyo

National Institute of Advanced Industrial Science and Technology, Japan Akira Takada

Susumu Umino Kanazawa University, Japan Ben van der Pluijm University of Michigan, USA Jody Webster (non-voting) University of Sydney, Australia

Toshitsugu Yamazaki National Institute of Advanced Industrial Science and Technology, Japan

#### \*Unable to attend.

a -Alternate for Pälike

b -Alternate for van der Pluijm c -Alternate for Webster d -Alternate for Tada e -Alternate for Maekawa

#### Liaisons, Guests, and Observers

Jamie Allan National Science Foundation (NSF), USA

David Divins (USIO) Ocean Drilling, The Consortium for Ocean Leadership, USA Nobuhisa Eguchi Center for Deep Earth Exploration (CDEX), JAMSTEC, Japan **Robert Gatliff** ECORD Science Operator (ESO), British Geological Survey, UK

**Kevin Johnson IODP Management International IODP Management International** Issa Kagaya Barry Katz (EPSP Chair) Chevron Corporation, USA Kiichiro Kawamura Fukada Geological Institute, Japan

Yoshi Kawamura **IODP Management International** 

Masa Kinoshita Japan Agency for Marine-Earth Science and Technology Ministry of Education, Culture, Sports, Science and Technology (MEXT) Shin'ichi Kuramoto

**IODP Management International** Hans Christian Larsen

Korea Institute of Geoscience and Mineral Resources (KIGAM) Youn Soo Lee

Alberto Malinverno Lamont-Doherty Earth Observatory, USA

Mitch Malone (USIO) Texas A&M University, USA

ECORD Managing Agency, Paris Geophysical Institute, France Catherine Mével

Ian Ridley National Science Foundation (NSF), USA Saneatsu Saito Japan Agency for Marine-Earth Science and Technology

Jeff Schuffert
U.S. Science Support Program, Consortium for Ocean Leadership, USA
Shingo Shibata
U.S. Science Support Program, Consortium for Ocean Leadership, USA
Ministry of Education, Culture, Sports, Science and Technology (MEXT)

Kiyoshi Suyehiro IODP Management International Harold Tobin University of Wisconsin-Madison, USA

Sean Toczko Center for Deep Earth Exploration (CDEX), JAMSTEC, Japan

Shouting Tuo Tongji University, China

Michiko Yamamoto IODP Management International

# **IODP Science Planning Committee**

18<sup>th</sup> Meeting, 22-24 August 2011 Zao, Miyagi, Japan

## **EXECUTIVE SUMMARY (V.0.4)**

Monday 22 August 2011 09:00-17:30

- 1. Introduction
  - 1.3. Approve SPC meeting agenda highlight action items

**SPC Motion 1108-01**: The SPC approves the agenda for its 18<sup>th</sup> meeting on 22-24 August 2011 in Miyagi, Japan.

Murray moved, Escartin seconded, 16 in favor (Dunbar, Escartin, Feary, Filippelli, Früh-Green, John, Kakegawa, Kasahara, Kuroda, Murray, Nishi, Smith, Stein, Takada, Umino, Yamazaki), 0 opposed, 1 abstained (Blackman), 3 non-voting (Brumsack, Gallagher, Li). The motion passed.

1.4. Approve last SPC meeting minutes

**SPC Consensus 1108-02:** The SPC approves the minutes for its 17<sup>th</sup> meeting on 28-31 April 2011 in Edinburgh, UK.

7. SAS panel reports

7.1. SSP

SPC Consensus 1108-03: The SPC received SSP consensus 1108-04 and 1108-05.

7.3 STP

**SPC Consensus 1108-04:** The SPC received STP consensus 1108E-02, 1108E-03 and 1108E-05.

8. Proposal Review (Rapid Response Proposal)

**SPC Consensus 1108-05:** In light of the potential for high scientific and societal returns from JFAST, SPC forwards the proposal to OTF. We acknowledge the potential scientific and technical risks associated with the project management. Pending the results of SSP and other feasibility reviews, we expect implementation of the project by OTF as warranted.

Tuesday 23 August 2011 09:00-17:30

10. Review and Discussion of CPP

735-CPP South China Sea Tectonics

**SPC Consensus 1108-06:** SPC recognizes the importance of 735-CPP proposal to understand the regional tectonic and climatic evolution of the Western Pacific.

The scientific drilling results will contribute towards the advancement of the IODP science program, and in particular Challenge 9 'How are seafloor spreading and mantle melting linked to ocean crustal architecture? On Theme 4 'Earth connections: deep processes and their impact on Earth's surface Environment'. An updated proposal following detailed comments would also address aspects of climate evolution (e.g., Theme 2, Climate and Ocean Change) more specifically.

The proponents are encouraged to submit an updated proposal that includes the results of recently acquired data, and the outcome of the workshop while addressing specific comments and recommendations provided by SPC.

- 11. Review and Discussion of OTF proposals
- 11.2. Discussion and summary of proposals
  - 11.2.2 Proposals that have been partially implemented

**SPC Motion 1108-07:** The SPC does not forward Proposal 477-Full4 Okhotsk/Bering Plio-Pleistocene to the new SAS.

Feary moved, Murray seconded, 17 in favor (Blackman, Dunbar, Escartin, Feary, Filippelli, Früh-Green, John, Kakegawa, Kasahara, Kuroda, Murray, Nishi, Smith, Stein, Takada, Umino, Yamazaki), 0 opposed, 0 abstained, 3 non-voting (Brumsack, Gallagher, Li).

**SPC Motion 1108-08:** The SPC does not forward Proposal 601-Full3 Okinawa Trough Deep Biosphere to the new SAS.

Murray moved, Früh-Green seconded, 14 in favor (Blackman, Dunbar, Escartin, Filippelli, Früh-Green, John, Kakegawa, Kasahara, Murray, Smith, Stein, Takada, Umino, Yamazaki), 2 opposed (Kuroda, Nishi), 1 abstained (Feary), 3 non-voting (Brumsack, Gallagher, Li). The motion passed.

11.2.3 Non-riser proposals

**SPC Motion 1108-09:** SPC returns Proposal 659-Full Newfoundland Rifted Margins to the

SAS system and encourages the proponents to select more suitable sites and to take into consideration comments in previous SPC reviews.

Früh-Green moved, John seconded, 17 in favor (Blackman, Dunbar, Escartin, Feary, Filippelli, Früh-Green, John, Kakegawa, Kasahara, Kuroda, Murray, Nishi, Smith, Stein, Takada, Umino, Yamazaki), 0 opposed, 0 abstained, 3 non-voting (Brumsack, Gallagher, Li). The motion passed.

**SPC Motion 1108-10:** SPC returns Proposal 705-Full2 Santa Barbara Basin Climate Evolution to the SAS system and encourages further development of the site assessment and safety characterization in consultation with the operators.

Murray moved, Blackman seconded, 17 in favor (Blackman, Dunbar, Escartin, Feary, Filippelli, Früh-Green, John, Kakegawa, Kasahara, Kuroda, Murray, Nishi, Smith, Stein, Takada, Umino, Yamazaki), 0 opposed, 0 abstained, 3 non-voting (Brumsack, Gallagher, Li). The motion passed.

**SPC Consensus 1108-11:** SPC Recognizes that borehole observatories (e.g., CORKS, Smartplugs, and other similar borehole-installed instrument packages) are necessary to address numerous goals of the new science plan. For this initiative to be successful, it is critical to both secure funding for the installations themselves and support for their operation through an extended period of time. SPC stresses that a link to existing seafloor observatory programs is necessary, and that the task of developing this link should be undertaken by SIPCOM. Aspects to be considered on this front include operations and maintenance of observatories, data management and distribution, and coordination of field operations, among others.

Wednesday 24 August 2011 09:00-17:00

#### 12. Discussion and Prioritization of MSP scheduling

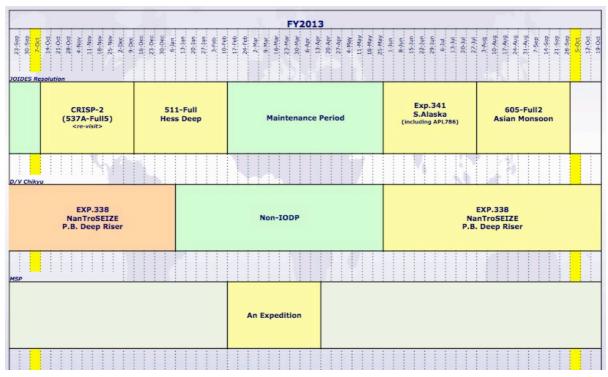
**SPC Consensus 1108-12:** The SPC recommends that two proposals, Baltic Sea Paleoclimate and Chicxulub Impact Crater, continue active scoping and that both of these proposals be implemented in FY13 and FY14. These proposals have different scientific objectives, and both constitute clearly exciting science of the highest impact. The SPC recommends that the Baltic Sea Paleoclimate be prioritized for implementation in FY13, and that Chicxulub Impact Crater be implemented in FY14. This timing will allow for additional potential positive linkages to be forged for the Chicxulub project with ICDP, thus maximizing the impact of this effort.

**SPC Consensus 1108-13:** SPC prioritizes Proposal 758-Full2 Atlantis Massif Seafloor Processes as the first option for additional operations beyond Baltic Sea Paleoclimate during

## 13. OTF Report: IODP expedition scheduling II

#### 13.2. SPC discussion and approval

**SPC Consensus 1108-14**: The SPC approves FY13 ship schedule as presented by OTF chair Yoshi Kawamura.



#### 15. Other business

**SPC Consensus 1108-15**: SPC acknowledges there will be a new funding model for post-2013 scientific ocean drilling. In light of the recent communication from the U.S. NSF, SPC wishes to emphasize the following guiding principles, independent of the on-going national and international financial discussions:

- --The internationally developed science plan, "Illuminating Earth's Past, Present, and Future", remains the over-arching vision that provides the scientifically-driven suite of highest priority objectives using multiple platforms in the coming decade.
- --Significant participation by the international scientific community in the Science Advisory Structure and implementing the next phase of scientific ocean drilling is essential. Expertise

from throughout the international community will be required to achieve the strongest possible scientific outcomes.

- --Access to a variety of programmatic resources, such as drilling platforms (including non-riser, riser, and MSPs), repositories, legacy and future cores, data and metadata, will be desired by members of all participating countries, and the new program should make every effort to enhance and streamline such international collaborations of personnel.
- --All possible avenues to increase the operations time of the individual platforms should be pursued.

SPC further wishes to thank IWG+ and personnel at the different national funding agencies for their dedication and pursuit of a successful post-2013 scientific ocean drilling program.

#### 16. Review of motions and consensus statements

**SPC Consensus 1108-16**: The SPC expresses their sincere appreciation to Takeshi Kakegawa, Daisuke Sugawara, Akiko Fuse, and Hiroshi Nishi for organizing and leading the field trip to Mt Zao, and the area around Sendai influenced by the March 11, 2011 M9 Tohoku megaearthquake and tsunami. We were granted a poignant reminder of the power of the Earth, its devastating effects and tremendous human tragedy – a humbling lesson none of the trip participants will ever forget.

**SPC Consensus 1108-17**: The SPC thanks our local host, Professor Kakegawa, for an incredible meeting. Together with the able assistance and organization of Mrs. Akiko Fuse, Professor Kakegawa made this final meeting of the SPC a memorable one. From the efficient and thorough arrangement of travel for participants, the clear instructions on using the Japanese bath, the wonderful, and delicious, reception on the first day, and the excellent choice of meeting location and meals, this meeting was thoroughly enjoyable and memorable. We thank you for a special meeting, and wish the best of luck for all of those affected by recent tragic impacts in this area.

**SPC Consensus 1108-18**: Gabe - SPC offers its most sincere thanks for your many years of service to the international scientific drilling community. We thank you for your thoughtful, patient, and gentle guidance as Vice Chair and then Chair of SPC, your unfailingly constructive wisdom, your quiet and effective leadership, and your spectacular ability to achieve consensus where none seemed possible—all done with a smile. Enjoy your break - we have no doubt that the community will call on your experience and skills in the future.

# **IODP Science Planning Committee**

# 18<sup>th</sup> Meeting, 22-24 August 2011 Zao, Miyagi, Japan

## **DRAFT Minutes (Ver. 3)**

Monday 22 August 2011 09:00-17:30

#### 1. Introduction

#### 1.1. Call to order and introductions

SPC Chair Gabriel Filippelli called the meeting to order at 9:00. All meeting participants introduced themselves.

## 1.2. Welcome and meeting logistics

Local host Takeshi Kakegawa welcomed the meeting participants to Zao and outlined the logistics for the meeting.

## 1.3. Approve SPC meeting agenda – highlight action items

Filippelli suggested switching 2.1 MEXT report and 2.2 NSF report, and including an executive session of SPC at the end of the first day. SPC approved the revised agenda.

**SPC Motion 1108-01**: The SPC approves the agenda for its 18<sup>th</sup> meeting on 22-24 August 2011 in Miyagi, Japan.

Murray moved, Escartin seconded, 16 in favor (Dunbar, Escartin, Feary, Filippelli, Früh-Green, John, Kakegawa, Kasahara, Kuroda, Murray, Nishi, Smith, Stein, Takada, Umino, Yamazaki), 0 opposed, 1 abstained (Blackman), 3 non-voting (Brumsack, Gallagher, Li). The motion passed.

#### 1.4. Approve last SPC meeting minutes

Filippelli asked for comments or suggestions for changes to the draft minutes for the 17<sup>th</sup> SPC meeting (March 2011, Edinburgh, UK). With no comments, SPC approved the minutes by consensus.

**SPC Consensus 1108-02:** The SPC approves the minutes for its 17<sup>th</sup> meeting on 28-31 April 2011 in Edinburgh, UK.

## 1.5. Items approved since March 2011 meeting

SPC electronically reviewed the report from Rapid Response Drilling Detailed Planning Group and invited a full proposal on this topic.

**SPC Consensus 1106-01:** The Science Planning Committee has received the Workshop Report from the Rapid Response Drilling Detailed Planning Group. The SPC is extremely appreciative of the hard work under a short timeline that went into developing this report. The SPC receives the report, thanks the DPG for their work, approves the report for posting on the IODP-MI website, and disbands the DPG given the successful completion of this effort.

## 1.6. SPC procedures and protocol

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

Filippelli referred to the SPC terms of reference and noted that an SPC decision requires either a consensus or an affirmative vote of at least two-thirds of all members present and eligible to vote. He explained that SPC meetings are conducted according to Robert's Rules of Order, and listed some of the salient points from this set of rules.

#### 1.6.2. Conflict-of-interest policy and statements

Filippelli reviewed the conflict-of-interest procedures for the meeting. He stated that potential conflicts should be declared. He added institutional conflict is normally not taken as a conflict. The SPC members and other meeting participants declared the following direct or potential indirect COIs regarding potential discussions; the chair's ruling follows each member's declaration(s):

Name	Declaration	Ruling by Chair	
Blackman	779-APL Atlantis Massif Lithosphere Hydration	Conflict for agenda 11.2.1	
	787-RRD Japan Fast Drilling (institutional)	No conflict	
Escartin	758-Full2 Atlantis Massif Seafloor Processes	Conflict for agenda 11.2.5	
	787-RRD Japan Fast Drilling (institutional)	No conflict	
Früh-Green	758-Full2 Atlantis Massif Seafloor Processes	Conflict for agenda 11.2.5	
John	758-Full2 Atlantis Massif Seafloor Processes	Conflict for agenda 11.2.5	
Kinoshita	NanTroSEIZE (603)	Conflict for agenda 11.2.2	
Kuramoto	537B-Full4 Costa Rica Seismogenesis Project Phase B	Conflict for agenda 11.2.4	
Li	735-CPP South China Sea Tectonic Evolution	Conflict for agenda 9	
Malinverno	779-APL Atlantis Massif Lithosphere Hydration	Conflict for agenda 11.2.1	
Malone	787-RRD Japan Fast Drilling (institutional)	No conflict	
Mével	758-Full2 Atlantis Massif (institutional)	No conflict	
	787-RRD Japan Fast Drilling (institutional)	No conflict	
Sato	NantroSEIZE (603A, 603B)	Conflict for agenda 11.2.2	
Tobin	NanTroSEIZE (603)	Conflict for agenda 11.2.2	
	787-RRD Japan Fast Drilling	Conflict for agenda 8	
Umino	522-Full5 Superfast Spreading Crust	Conflict for agenda 11.2.2	

Yamazaki 695-Full2 Izu-Bonin-Mariana Pre-Arc Crust (ex-proponent) No conflict

## 2. Agency reports

#### 2.1. NSF (U.S.)

Jamie Allan provided NSF report.

FY11 funding is the same as FY10. FY12 is expected to be flat or decline. FY13 may decline as well. JOIDES Resolution (JR) will drill 4 expeditions in FY12. Planned budget increases for IODP did not materialize, because Inflation-adjusted budgets have been flat since ODP, and fuel fee has increased more than 4-fold since the beginning of IODP. In summary, the required increase in budget to support an IODP style, rather than the ODP style program, never occurred, and is not forecast to occur post 2013 in the US. Lately, the JR has been kept alive within IODP only with the carry forward budget from operational savings, and additional funding from the US fiscal stimulus package.

Because National Science Board (NSB) approval for JR as a facility in a new drilling program can only be obtained by demonstrating a viable economic model, NSF made a decision to pursue a funding model that differs from that discussed by IWG+ over the last two year. The model was communicated in a letter to the scientific community by August 19, following presentation to MEXT officials by NSF officials in Tokyo August 18th. In this model, 12 months operation of the JR is a TOP priority. NSF will seek financial partners for post-2013 in operating the JR to make this possible, and will do this as a single agency. (NSF letter and subsequent letters from other program entities at www.iodp.org).

The science advisory structure is expected to be similar to the current new structure. The JR is expected to operate under the umbrella of the new IODP science plan. NSF looks forward to the continued intellectual collaboration between the US, Japan, Europe, and other nations in ocean drilling science beyond 2013.

The National Research Council (NRC) report will be published soon. The report is about the achievements of past scientific drilling, and an assessment of the new science plan for 2013 to 2023. It is important to note that this is a committee formed by luminaries, mainly outside of drilling. The report will help to determine how NSF should move forward.

Following the NRC review, NSF will seek the approval from the NSB. April 2013 is the critical time for the minimum notice NSF needs to give to the ship operator in order to extend the lease on the JR.

Some of the details remain unanswered, but NSF will work with all international partners to identify a fiscally viable program structure in which JR can serve 12 months/year or as closely to 12 months as possible.

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Hans Brumsack asked if this is the end of IODP, and if the program will go back to ODP. Allan replied that it is not the end of IODP, but a change in the style of the program. The US, Japan and Europe will run their own platform in the way that they think is the best for them.

Donna Blackman pointed out that Allan mentioned only Europe as a potential US partner, and not Japan. Rudy Stein agreed with Blackman, and commented that he understood from Allan's presentation that the US envisions that US and ECORD will work only for JR. Allan replied that he did not want to be precise, and added that NSF hopes to continue the intellectual partnership with Japan as well. Gretchen Früh-Green commented that NSF should give a clear explanation if they want support from the European and Japanese communities.

Hiroshi Nishi commented that the international system of proposal decision and core repository support cannot be easily changed. Allan replied that he hoped there would be every opportunity for anyone to join JR cruises and access the cores, although the management system will change.

Hans Christian Larsen asked that if indeed there is a fixed cap on the NSF budget for JR, and hence, the funds are supposed to come from international partners, would it not have been useful for NSF to consult with international partners. Allan replied that they are looking at any viable support option, and that they hope that significant new funds will come in, either from new partners or increases in funding from some existing partners. Larsen suggested taking advice from international partners.

Stephen Gallagher asked what would happen to the proposals in the current system. Allan replied that the new SAS would determine what would be transferred to the next program. Barbara John asked what SPC could do now for the proposals that will not be drilled by 2013. Filippelli replied that SPC reviews OTF proposals and creates packages to PEP and SIPCOM, although no one knows how an OTF will be constituted post-2013.

Junichiro Kuroda asked for a clear explanation on why NSF needs an independent, JR-optimized SAS for the new program. Allan replied that each platform needs its own advisory structures to work closely with its operator. The US would keep the same SAS style, and the only change will be the right to participate post-2013, which will depend on each country's contribution.

Harold Tobin suggested letting the proponents decide whether they should put their effort into proposals to submit for October 2011 and later deadlines. Filippelli agreed with Tobin. Allan replied that that decision should be made by the CMO. (IODP-MI subsequently approached the scientific community through a letter explaining the situation regarding proposals and science planning; posted at www.iodp.org)

Gallagher asked if NSF considers a lead-time in FY13 for the new program. Allan replied that keeping the ship is the priority and they have not assessed the lead-time. There may be a time gap.

#### 2.2. MEXT (Japan)

Shingo Shibata explained that MEXT understood that NSF' new model was created from the viewpoint of securing JR operation under the difficult financial situation. However, there was a concern that this model was dominantly focused on financial planning for JR, and no details on international cooperation aspects on ocean drilling science were known. He emphasized the importance of maintaining effective exchanges and collaborations in this importance science discipline in addition to securing platform operations. He mentioned that the international recognition and political support of the community would be significantly undermined and the competence/momentum of drilling science community would be severely hampered, if it were not for the international framework. It was mentioned essential to find out the best international cooperation mechanism. Shibata strongly urges NSF and others to work together, to craft the best mechanism. MEXT very much looks forward to listening to the community's opinions on this matter.

## [Chikyu Status]

Ship-bottom repair work at the dock was completed on June 16. After testing DPS (Dynamic Positioning System) with five thrusters, Chikyu sailed out for Sri Lanka for non-IODP work.

## [Chikyu Schedule]



FY2013													
Apr.	Apr. May		ın.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jar	٦.	Feb.	Mar.
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[New Science & Technology Basic Policy Plan]

- 1. Science & Technology Basic Policy Plan (Aug. 2011 Jul. 2016)
- (a) Enhancing Green Innovation -- Renewable energy / Smart grid system / Earth observation etc.
- (b) Enhancing Life Innovation -- Development of new medical treatment (telemedicine, tissue engineering etc.) / Improvement of quality of life for elderly and disabled person etc.
- (c) Enhancing recovery/revival actions incl. risk management to improve safety against

disaster -- Restoration of infrastructure / Revitalization of Tohoku district's industry / Radiation monitoring, Removal of Radiation-contaminated soil .

## [Basic Policy on Tohoku Reconstruction]

The Tohoku Reconstruction policy asks Japanese geologists to focus on the mechanism that cause the Tohoku earthquake and the huge tsunami, and risk assessment of Tokai, Tonankai and Nankai earthquakes

## [J-DESC activities]

- Detail Planning Group (DPG) meeting for the Tohoku Earthquake RRD was held at Tokyo on 18-20 May, 2011 to discuss scientific significance and technical possibility of Rapid Response Drilling (RRD) for Tohoku.
- Workshop for earthquake fault drillings (NanTroSEIZE, Kanto Asperity Project, and Tohoku Earthquake Rapid Response Drilling) was held on 22 and 23 June in Tokyo.
- Three J-DESC Core Schools (Logging courses / Core Description course/ Core Isotope Analysis course)
- JPGU (Japan Geo-science Union) and IODP-ICDP Town Hall Meeting (22 to 27 May, Chiba)

## [IODP National Review]

- 14 Jan. 2011: Outline of current IODP and NSP
- 14 Feb.2011: Discussion on New Chikyu proposal
- 10 Mar. 2011: Strategies for new research development
- 21 Jun. 2011: Discussion on outreach strategies of Ocean Drilling
- 15 Aug. 2011: Drafting a report of above discussions

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Junzo Kasahara asked what kind of program framework MEXT would need to get the IODP budget from the finance ministry. Shibata replied that an international framework is essential.

Blackman asked if the Science and Technology Plan refers to deep ocean drilling. Shibata replied that there is only one phrase, "Enhance the scientific research in innovative fields, such as space science and ocean" that is somewhat related to ocean drilling.

#### 2.3. EMA (ECORD)

Catherine Mével provided ECORD report.

#### [MSP operations]

ECORD provides 16.8 M\$ in SOCs annually to the commingled funds. POCs are accumulated over several years to have enough funds to implement an expedition. For FY11, ECORD council has allocated 9.2 M\$ to ESO in POCs. This will allow ESO to go for tender for the last MSP expedition. Depending on the result of the tender, ESO may be able to implement an additional cheap expedition.

#### [Magellan workshops by ESF]

The Magellan workshop series comes to an end this year. The last workshop will be held in the following schedule.

Workshop title: Arctic Ocean drilling and the site survey challenge

Date and venue: November 1-3, 2011, Copenhagen, Denmark.

Conveners: N Mikkelsen (Denmark), Rüdiger Stein (Germany) and Bernie Coakley (USA)

ECORD council decided to allocate a budget to continue this project as Magellan Plus to strengthen the links between ECORD and ICDP in Europe.

## [Arctic drilling]

Arctic drilling is an important goal for most ECORD member countries. ECORD Industry Liaison Panel (<a href="http://www.ecord.org/ecord-ilp.html">http://www.ecord.org/ecord-ilp.html</a>) decided to focus on the Arctic to investigate the possibility of developing joint projects. To promote contacts with industry, an Arctic session and IODP booth are organized at the 3P Arctic meeting in Halifax, 30 August – 2 September.

#### [DS3F]

DS3F conference will be held in Barcelona, 11-14 March 2012, to finalize the white paper that will emphasize the scientific priorities in the deep-sea, seafloor and sub seafloor frontiers during the next 15 years.

#### [Future of ocean drilling, post 2013]

There is strong interest in participating in the next phase of scientific ocean drilling, although most ECORD member countries are in a difficult economic situation. The ECORD council endorsed the business plan developed by EMA/ESO. ECORD will link with other science initiatives (IMAGES, EMSO, ICDP, etc...) to develop a "Distributed European Marine Subseafloor Infrastructure".

## [ECORD evaluation committee]

The committee chair reported at the ECORD council meeting. The report will be submitted to the funding agencies this fall, and expressions of interest will be submitted by the end of 2011. ECORD needs to discuss with this with NSF before this deadline.

[Next ECORD Council meeting]

November 2-3, Granada

## 2.4. MOST (China)

Shouting Tuo provided MOST report.

[Chinese participation in expeditions]

9 scientists participated in 8 cruises, and 4 scientists are scheduled for upcoming 4 cruises.

#### [735-CPP]

Shouting introduced a Chinese proposal, "Opening of the South China Sea and its implications for Southeast Asian tectonics, climates, and deep mantle processes since the early Mesozoic", which will reviewed by this SPC meeting.

## [National Natural Foundation of China]

NNFC focuses on the South China Sea basin evolution. The total budget is 150 Million CNY (about 22 Million US\$)

#### [MOST activity]

Marine Geology Summer School was held in Tongji University, 10-20 July, 2011. The new science plan was introduced in this summer school.

## 2.5. KIGAM (Korea)

No representative from Korea.

## 2.6. ANZIC (ANZIC)

Stephen Gallagher provided ANZIC report.

## [ANZIC IODP Membership]

ANZIC consortium of Australia and New Zealand, together forms 30% of a membership unit

- -Australian IODP consortium consists of 14 Universities and 3 Government agencies (25% of unit \$1.4 m per year). Australia funded to end 2013.
- -New Zealand IODP Consortium consists of 5 universities and 1 Government agency (5% of unit). NZ funded to end 2011, but NIWA have confirmed they will contribute \$15k per year.

#### [Recent and Future IODP Activity in ANZIC Region]

- Port call in Auckland in mid-February 2011, coincided with the STP Meeting
- IODP Workshop: Using Ocean Drilling to unlock the Secrets of Slow Slip events. Gisborne, NZ, 1-5 August, 2011.
- Indian Ocean IODP Workshop. Goa, India, 17-18 October. Arrangements going well (link: http://www.ncaor.gov.in/iodp/index.html)
- John Townsend (Victoria University, Wellington) participated in the Tohoku Earthquake Rapid Response Detailed Planning Group meeting (Tokyo, May 2011).
- New Zealand has been selected as one of primary Focus Sites for the next ten years of NSF GeoPRISMS Subduction Cycles and Deformation program

## [ANZIC Participation in Legs]

Three Australians have sailed recently. No New Zealand applicants were received to sail.

#### [Indian Ocean IODP Workshop]

Indian Ocean IODP workshop will be held in Goa in 17-18 October 2011, to build international scientific alliances, and generate new ideas needed to build strong new IODP proposals and to provide wide exposure of IODP to the Indian science community. ~60 Indian and ~40 non-Indian participants are expected.

#### [Future JOIDES Resolution program]

ANZIC regards JR as the most important platform. ANZIC now expects that JR will come back into the western Pacific Ocean in late 2013, allowing the start of a new IODP program in Indian Ocean, which is important for funding for the next phase of IODP.

#### [Post-2013 Program]

- -Australia and New Zealand both intend to be involved post-2013, at least at current financial levels
- Need an in-principle decision from NSF-MEXT-ECORD on their continued support for Ocean Drilling. Australia will then seek long-term funding for 2013-2023.

## 2.7. MoES (India)

No representative from India.

3. Implementing Organization (IO) reports (see written reports)

#### 3.1. CDEX

Nobu Eguchi provided CDEX report.

## [Damages caused by Tsunami]

- 11 March 2011; during the port call for Exp. 337 at Hachinohe, Chikyu suffered from the tsunami induced by M9 Tohoku Earthquake.
- Crews working at dock side escaped into the vessel, Chikyu left the dock and anchored in the middle of port. However, the tsunami hit the vessel and the Chikyu received significant damage.

## [Repair plan]

- -Retrieve outer and inner structure of Fuel Oil Overflow Tank□ No.7 Void space and reconstruct them.
- -Retrieve 4P Azimuth thruster platform and close open space.

## [Non-IODP Operation #1]

Operator: Cairn Lanka (Private) Limited

Mobilization: 25 days (arrived Sri Lanka on 2 Aug)

Planned Well: 3 wells (+ 2 options)

Period: Max. 150 days (Aug. –Dec.)

Demobilization: 30 days

HQ: New Delhi, India

Logistic base: Colombo, Sri Lanka

## [Non-IODP Operation #2]

Operator: JAPEX

Planned Well: 4 wells

Period: 32 days (early February – early March, 2011)

Location: Nankai Trough Purpose: Gas Hydrate

#### [Revised Chikyu operation schedule]



- Non-IODP work; until late February early March 2012
- RRD window; late March/early April early/mid May 2012 (1.5 month)
- Dry dock (thruster installation); early/mid May early/mid June 2012 (1 month)
- Exp. 337 (Shimokita); late June late August 2012 (2+ months)
- Exp. 338 (NantroSEIZE); early September 2012 early January 2013 (4+ months)

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Kasahara asked if there is enough time to assess the technological issues for the RRD. Eguchi replied yes, and informed that CDEX has already started assessment with a consulting company. Chikyu will be ready for the RRD by April or May.

Filippelli asked what the contingency plan is if the funds will not be adequate for Expedition 337 (Shimokita). He also asked if the contingency could be to extend NanTroSEIZE. Eguchi replied that CDEX is optimistic about the budget for 337. However, even if 337 cannot be implemented, its budget cannot be transferred to NanTroSEIZE, because the budget source is different.

Blackman asked what percentage of the expense of the Shimokita CPP is paid by non-IODP sources. Eguchi replied that it is more than 70%. Blackman commented that if there is 20% from IODP, that 20% could be transferred to NanTroSEIZE. Eguchi replied yes, but this small amount does not help significantly affect the expensive NanTroSEIZE operation. David Smith commented that one option is moving the Rapid Response to after the thruster repair. Eguchi basically agreed with Smith, but the lead proponents of RRD requested the expedition as soon as possible. Allan pointed out that JAMSTEC has conducted an enormous number of cruises offshore Fukushima and Tohoku, and that could be a real strain on the budget. Eguchi replied that the budget for the three expeditions is still secured regardless of the enormous site surveys for Tohoku earthquake.

#### 3.2. USIO

David Divins provided USIO report.

#### [Expedition 334 : COSTA RICA SEISMOGENESIS PROJECT (15 March - 13 April, 2011)]

- Science Goal: Complete characterization (composition, texture, and physical properties, fluids, etc.) of the sedimentary section and basement of the upper plate at 2 sites.
- Highlights: Recovered 1493 m of core, 85% recovery. Logging While Drilling (LWD) at two sites, coring at four.

## [Expedition 335 :SUPERFAST SPREADING RATE CRUST (13 APRIL - 3 JUNE, 2011)]

- Science Goals: Understand the formation of oceanic crust, by deepening Hole 1256D several hundred meters, and study the magmatic rocks of the lower crust, which scientists expect to access for the first time in their original position.
- Highlights:
- •Opened hole (920 m)/stabilized with cement: 16 d (9 reentries).
- •Cored (4 cores, 8% recovery): 2 d (1 reentry) Spectacular bit failure
- Progressively fish/mill/clean/ream hole: 19 d (13 reentries)
- Logging (triple combo): 2 d (1 reentry)
- Cored (1 core, 35% recovery) and cemented: 1.5 d (1 reentry)
- BOH to 1510 and 940-910 m cemented to stabilize

#### [TIE-UP PERIOD]

- JOIDES Resolution in Curacao: June 8 September 13,2011
- Two major ongoing projects:
  - •LIMS Reports and DESClogik Application enhancement
  - •To be completed and deployed by September 2011

## [Revised JR Schedule]

EXPEDITION	EXP#	DATES	TOTAL DAYS (port/at sea)	CO-CHIEF SCIENTISTS
Non-IODP		3 June–16 Sept. 11		
Mid-Atlantic Mbio	336	16 Sept.–17 Nov. 11	62 (2/60)	K. Edwards W. Bach
Mediterranean Outflow	339	17 Nov. 11–17 Jan. 12	61 (5/56)	J. Hernandez- Molina D. Stow
Atlantis Massif (779 APL)	340T	17 Jan6 Feb. 12	20 (5/15)	D. Blackman
Lesser Antilles	340	6 Feb18 March 12	41 (1/40)	A. Le Friant O. Ishizuka
Non-IODP		18 March-18 Jun 12		
Newfoundland Sediment Drifts	342	18 June-17 August 12	60 (4/56)	R. Norris P. Wilson
Non-IODP		17 August–17 Oct. 12		

#### [Education & Outreach Activities]

- -IODP Newsletter Spring 2011 issue available at www.oceanleadership.org/wp-content/uploads/2009/03/CoreDiscoveries\_Spring2011\_Web.pdf Fall issue to be published in September.
- -School of Rock (SOR) 2011: Five-Year Review Workshop, 1-3 August, 2011 onboard the JOIDES Resolution while in port in Curacao. Three participants from each previous SOR and five instructors assessed the SOR program and plan for its future.
- Kris Ludwig resigned her position as Communications Manager at the end of July to begin an AAAS Science and Technology Policy Fellowship (Executive Branch) at NSF.

# [LIMS report highlight]

- LIMS Reports provides scientists with a simple, intuitive, web interface to extract data and generate reports for scientific analysis.
- Project encompasses the development of 30 tabular-data reports by September 2011.
- Each report will include a description, definitions, and examples to guide scientists not familiar with the data.
- Each report will display the primary data relevant for that system.
- Project includes overview tables (drill down capability).
- The reports do not encompass descriptive data, which will be addressed in a separate project.

#### 3.3. ESO

Robert Gatliff provided ESO report.

## [Post cruise meetings]

- Expedition 325 GBR Operations Review: 18th 19th July, 2011, Edinburgh, UK
- Expedition 313 New Jersey 2nd Post-expedition Meeting: 15th 19th August, 2011, Salt Lake City, Utah, USA
- Expedition 325 GBR 2nd Post-expedition Meeting: 2nd 7th July, 2012, Cairns, Australia

#### [Proposal 548 Chicxulub Impact Crater]

--- Progress on permitting

(June 2011)

- Letter sent to Ministry of Environment and Natural Resources (SEMARNAT) and National Council on Science and Technology (CONACYT)
- Co-signed by IODP-MI, EMA and ESO
- Project approval from IODP-MI and ECORD, and how it will be funded
- The project will be implemented by ESO
- Formally collaborate with UNAM the National Autonomous University of Mexico
- Two Mexican scientists will join the Science Party as members
- Cores back to BCR and then ultimately stored at the GCR.

#### (August 2011)

- Early meetings to raise awareness have gone well
- Have high-level support in SEMARNAT
- Asked to submit formal applications for hazard survey and drilling operation
- ESO will also need to submit Environmental Assessment
- --- Scoping of operations
- 3 companies interested in tender for drilling
- Discussions still taking place, but a New Jersey-style lift-boat arrangement is expected
- Price will not be known until tender responses are received
- After a slow start, permitting appears to be on track
- A 2012 hazard survey may still be possible
- ESO will issue separate tenders for the hazard survey and drilling operations

- --- Recommendation
- Plan Chicxulub and Baltic in parallel, giving Chicxulub priority for 2013 and have Baltic as backup. Whatever expedition is not done in 2013 will be done in 2014.

[Proposal 672, Baltic Sea Paleoenvironment]

- PMT meeting 28th June with Thomas Andrén and Bo Baker Jörgensen
- Proposal has a high priority microbiology component
- 2 companies interested have quotes
- Question mark over deepest site: to include it significantly raises costs and limits choice of contractor to one company
- --- Recommendation

Plan in parallel with Chicxulub, likely 2014 implementation

[Proposal 758: Atlantis Massif Seafloor Processes]

- PMT meeting 29th June with Gretchen Früh-Green and Christopher MacLeod
- Proposal requires use of a seabed drill
- Proposal has a high priority microbiology component
- Discussion of site survey data: ESO and proponents are re-evaluating site survey data for safe positioning of seabed drill
- Logging requirements from a seabed drill: Oriented imaging is required, others if possible but not essential
- --- Recommendation
- Schedule for the new program (2014/2015)
- Time for seabed drilling & logging technology to develop and be tested
- Potential to use research ship contributions in kind from ECORD partners in new program

[Proposal 716, Hawaiian Drowned Reefs]

- No further scoping since last SPC meeting
- Sites too deep for seabed drills operating alone, would need drill ship for base of sites
- --- Recommendation

- Leave to new program time for seabed drill technology to mature (in particular penetration must be improved, but also logging tools need further development).
- Atlantis Massif requires less penetration and is within reach of current seabed drills.

## [2012-2013 recommendation]

- Aim for Chicxulub hazard survey in 2012
- Plan Chicxulub and Baltic in parallel, giving Chicxulub priority for 2013 and have Baltic as backup. Whatever expedition is not done in 2013 will be done in 2014
- Chicxulub permitting and contracting may still throw up some hurdles
- Further planning of Baltic microbiology sampling
- Continue planning an Atlantis Massif seabed drill campaign, possibly for 2014 or 2015.

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Ruediger Stein pointed out that Gatliff made some recommendations concerning Chicxulub and the Baltic Sea from a technological point of view, but SPC's recommendation from scientific point of view should be the first priority. Gatliff agreed with Stein.

Brumsack commented that Chicxulub was not the highest priority in ICDP, and asked if Gatliff communicated with ICDP regarding Chicxulub. Gatliff replied no. Stein commented that Chicxulub can have a chance to develop as a joint project with ICDP, but ICDP has not decided when or whether the Chicxulub onshore drilling will occur. Brumsack commented that there was a long debate on whether ICDP should put any money into an IODP operation, and the majority of SAG (ICDP Scientific Advisory Group) members were opposing it. But it has been changing slowly. He recommended that the proponents communicate with ICDP.

Blackman asked Gatliff if his recommendations for the Baltic Sea and the Atlantis Massif are from only an operational point of view. Gatliff replied yes, and commented that ESO will be in much better position in two years to guarantee good recovery of what the Atlantis Massif proponents want.

- 4. IODP Management International, Inc. (IODP-MI) report
- 4.1 Science planning and General report

Kevin Johnson provided MI report.

## [Appointment of New SIPCOM and PEP chairs]

SIPCOM and PEP Chair Selection Committee (Ian Macgregor, Geoff Garrett, Masaru Kono, Gerold Wefer, Terry Quinn) reviewed 7 candidates for the SIPCOM Chair and 7 candidates

for the PEP Chair and made a recommendation to IODP-MI. IODP-MI selected Jan de Leeuw for SIPCOM Chair and Dick Kroon for PEP Chair. Both accepted.

## [Schedule of New SAS Panel Meetings]

1st PEP Meeting – just after NSF in November (November 30-December 3) in SF Bay area (TBD) before AGU

2nd PEP Meeting – May 9-12 (TBD); subsequent meetings will target meeting prior to NSF panels if IODP proposal deadline moves forward

1st SIPCOM Meeting – January 18-19, 2012 in Goa

2nd SIPCOM Meeting – June 2012? US (TBD)

1st STP Meeting – February, 2012, Kochi

1st SCP Meeting – just prior to 2nd PEP meeting

EPSP Meeting – As called

[Rapid Response Drilling to Tohoku Earthquake fault zone: J-FAST Project]

- IODP-MI utilized DPG format to expedite initiation of the project:
- 1. Organized the Tohoku Earthquake Rapid Response Drilling Detailed Planning Group, May 18-20, 2011
- 2. DPG Report Submitted June 9, 2011
- 3. Weekly meetings with proponents, CDEX, and IODP-MI in June-July
- 4. Japan Trench Fast Earthquake Drilling Project (J-FAST) proposal submitted to IODP-MI August 1, 2011
- 5. 11 external reviews received & distributed to SPC
- 6. SSEP and SSP reviews to follow per SPC recommendations
- Yomiuri newspaper contacted IODP-MI concerning RRD and the article appeared August 13, 2011

[Complementary Project Proposal (CPP)]

- CPP to South China Sea Submitted July 20, 2011.
- Site survey data are being collated and will be submitted in the coming month.
- Additional site surveys will be funded by the Chinese government.
- SSEP and SSP review to follow per SPC recommendations.

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Smith asked how the public reaction to the newspaper article was. Johnson replied that he did not know yet what the response was from the readers. Gallagher informed that a similar article was published in an Australian newspaper.

Filippelli asked how IODP-MI handled the confidentiality issue with RRD proposal. Johnson replied that IODP-MI did not tell the reporter about any details.

Filippelli asked if Johnson received any feedback about naming two Dutch people to be the two top chairs of the SAS. Johnson replied no, and he commented that the two Dutch chairs were selected by the committee who focused on only the specific needs for the job and they were country-blind.

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[Proposal submission to new SAS]

- First deadline is October 1, 2011 (submissions open September 15)
- New web-based proposal submission system may be functioning in time; if not, the old pdf upload system is still in place
- New submission deadlines in future: March 15, 2012 and September 15, 2012 are planned to allow scheduling PEP Meetings before NSF panels in 2012

## [Workshop]

Johnson introduced the new workshop policy for FY12 and later.

## (Extraction from FY12 APP)

With the new SAS and proposal process, the demand for WS will increase, in particular for WS aimed at producing full proposals. Similarly, it is envisaged that effective, long-term scheduling of platforms will require an improved mechanism to secure a critical mass of mature proposals in different oceans. Workshops with a regional inclination assist such a planning effort.

The program will therefore accept three types of WS proposals:

- 1) Unsolicited or solicited proposal that will address scientific opportunities in a particular region, with or without specific scientific theme(s) in mind,
- 2) Unsolicited WS proposals for thematic WS that has potential to develop new scientific approaches,
- 3) Solicited (by PEP) WS proposals to develop a full drilling proposal.

Ad (1): The need for such regional WS may be significant. There is a growing concern about lack of a critical mass of proposals, making efficient scheduling difficult. Long range planning, defining (tentative?) ship tracks and regional WS may be a path forward to

overcome this quite fundamental problem.

Ad (3): Solicited implies that a pre-proposal has been submitted and favorably reviewed by PEP, with review comments of a nature that will make it natural to further develop the scientific rationale, technology, or group of proponents through a WS.

## [IODP-MI news]

- Complete IODP website redesign is currently underway
- Strong interest from Russia, Indonesia, and Brazil to join IODP
- Hans Christian Larsen announces his retirement at end of January, 2012.

## 5. SASEC report

Filippelli provided SASEC report.

The last SASEC meeting was in Amsterdam, 14-15 June, 2011. He introduced the following SASEC consensuses.

SASEC Consensus 1106-5 (abridged version of Consensus): The Tohoku mega-earthquake was a major tragedy of national and international importance.

- The scientific program of any submitted proposal should be carefully developed and tightly integrated with the necessary technological capabilities.
- The proponents must convincingly articulate how samples and data recovered will address the science objectives proposed.
- The proposal should provide options for measurements of ephemeral properties as they relate to various scheduling options.
- SASEC also requests that CDEX, in cooperation with the drilling proponents, initiate an assessment of the technological feasibility of the proposed drilling program.

SASEC Action Item 1106-6: SASEC will review SPC recommendations for a RRD expedition to Tohoku earthquake zone, and consider the issues concerning technological capability and achievement of NanTroSEIZE objectives in time remaining, as well as implications for FY12 APP.

SASEC Consensus 1106-7: SASEC commends IODP-MI for pursuing external funding to scope mantle drilling. Pending a favorable Sloan Foundation co-funding decision and in-kind

contributions from JAMSTEC, the possibility of establishing a scoping office will be evaluated within the context of the FY12 APP by the SASEC.

Kiyoshi Suyehiro commented that IODP-MI was successful in getting 500K USD from Sloan Foundation for scoping mantle drilling, which will run from July 2011 to 2013. The FY12 APP stipulates that the scoping will be done as an IODP activity, which was approved by SASEC and the Board of Governors. The scoping office is in the process of starting up. Allan informed the audience that the NSF contracting officer was making a thorough evaluation of the monetary aspects of it.

SASEC Consensus 1106-11: SASEC recommends to IWG+ that the SIPCOM chair also be a member of OTF within the new SAS structure and that the TORs be modified accordingly.

Larsen commented that IODP-MI and IWG+ co-chairs discussed this and decided to have SIPCOM chair not be a member of OTF, but a permanent liaison.

SASEC Consensus 1106-13: SASEC declines to recommend funding of GOLD workshop proposal.

SASEC Motion 1106-14: SASEC recommends that the Beaufort Sea Workshop proposal be funded at the requested amount.

Stein informed that the Beaufort Sea Workshop would be in February 12th to 15<sup>th</sup> in Kananaskis, Alberta, Canada.

6. NanTroSEIZE program update

Harold Tobin provided NanTroSEIZE update.

[Organization of NanTroSEIZE CDP]

- Related proposals:

603-CDP = overview proposal (Lead Proponents G. Kimura and H. Tobin)

603-A: Inputs Sites (Lead Proponents M. Underwood and J. Ashi)

603-B: Splay Fault Sites (Lead Proponents M. Kinoshita, K. Brown, P. Henry, and D. Saffer)

603-C: Deep Plate Boundary Site (Lead Proponents H. Tobin, K. Suyehiro)

603-D: Non-riser site Observatories (Lead Proponents E. Screaton and M. Underwood)

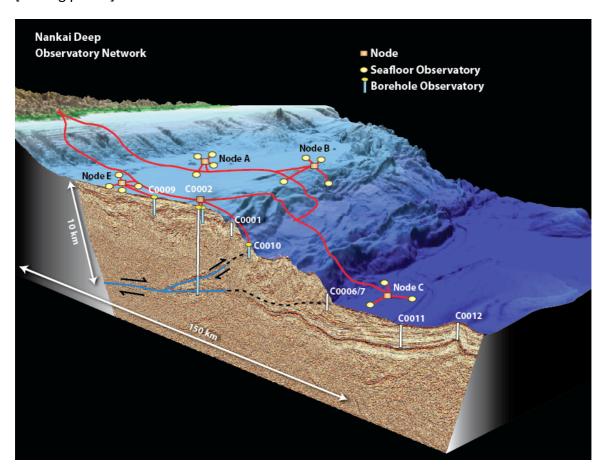
- Project Management Team set up on recommendation from SPC in June, 2004

## [Seismogenic Zone Challenges]

NanTroSEIZE is to address the following questions by imaging, sampling, downhole measurements and long-term monitoring

- 1. What governs subduction zone seismogenic fault locking vs. stable slip and/or transitional fault behavior?
- 2. Does fault state evolve during interseismic and pre-seismic period? If so, how?
- 3. What governs tsunami generation characteristics for a given great earthquake?

## [Drilling points]



C0011, C0012: Incoming Plate - Inputs to the Seismogenic Zone

C0001, C0010, C0006, C0007: Shallow fault zones - frontal thrust and up-dip end of megasplay fault system

C0002: Ultra-deep drilling across the plate boundary fault zone

## C0010, C0002, C0009: CORKs and long-term monitoring system

## [NanTroSEIZE activities]

- 8 expeditions from 2007 2011 (note that the division is a bit non-traditional)
- More than 150 scientists from 15 countries
- 13 sites (11 with extensive datasets)
- Max depth 1600 mbsf so far
- Frontal thrust and intra-wedge thrust splay fault sampled
- 1 permanent, 1 temporary long-term observatory installed, 2 more to go
- Most extensive LWD program and downhole stress, pressure
- Most advanced CORK-style deployment achieved, recording data
- About 45 papers published, many more in the works

#### [NantroSEIZE Accomplishments]

- NanTroSEIZE has completed nearly all drilling objectives except very deep hole and full instrumentation.
- Even shallow faults (both frontal and mid-wedge splay) show possible evidence of rapid, seismic fault slip.
- Shallow faults are in stable sliding (non-seismogenic) regime in conventional lab experiments, but high-velocity behavior may differ.
- No evidence of fault-bounded lateral fluid transport.
- Principal stress axis orientations are controlled by far-field tectonic stresses, magnitudes locally vary, flipping stress regimes.
- Inputs include voluminous hydrated clay minerals and altered basement, some evidence of long-distance lateral fluid flow from beneath prism.
- Temporary monitoring has provided quantitative pore pressure, temperature data from within the splay fault zone for first time.
- First long-term monitoring package (CORK) installed to be connected to DONET in 2012 for real time data.

## [Remaining work to do]

- Riser drilling of the ultra-deep site to mega-splay at ~5500 mbsf and across plate interface to subducting basement at ~7000 mbsf
- Installation of final long-term observatories (seismic, strain, fluid pressure, temperature) in 2 deep sites and 1 shallower site

## [Future possible schedule]

Sept 2012 - Jan 2013: (Exp 338) Drill and case to 3600 mbsf

July 2013 – Dec 2013: Drill and case to 4700 mbsf (above mega-splay reflector)

2014: Complete casing across mega-splay and drill to 7000 mbsf.

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Li asked if C0001 is one of the deep riser sites. Tobin replied not C0001 but C0009 was chosen for semi-deep deep riser drilling, and it is about 1600m deep now (with instrument package). The ultra-deep site to the plate boundary is Site C0002 for which preparation and the upper 800 m has been drilled, and key target for 2012-13 operations.

Murray asked what Tobin learned in terms of science management of a CDP. Tobin replied that he learned that communicating directly with operators and crews, and understanding their background is very important.

Murray asked what could help for better management in the future. Tobin replied that the PMT is the window into how the management goes because the PMT includes the operator, the IODP-MI, and representatives from the various other organizations. Thus, documentation of lessons that PMT learned would be important for future.

Larsen asked how Tobin and Kinoshita see the outcomes of NantroSEIZE fitting with other seismogenesis research. Kinoshita replied that one of the contributions from NantroSEIZE would be re-estimation of time-dependent regional stress and propagating ruptures model. Tobin commented that the drilling point for NantroSEIZE was chosen because it is a place that locked up between earthquakes. On the other hand, rapid response drilling will see the immediate after-effects. Hikurangi and Costa Rica also do not seem to be locked up like Nankai. So, something will be learned from comparing systems that look the same, but behave differently.

## 7. SAS panel reports

#### 7.1. SSP

Kiichiro Kawamura provided SSP report.

He reported the site classifications for the proposals reviewed at the last SSP meeting in St. Petersburg, FL, US, 1-3 August 2011.

Proposal	Short_Title	Proponent	Classification (site#)		
595-Full4	Indus Fan and Murray Ridge	Clift	1Ab(1)		
644-Full2	Mediterranean Outflow	Hernandez-Molina	1Aa(7),1Ba(2)		
686-Full	Southern Alaska Margin 1: Climate-Tectonics	Jaeger	1Aa(9)		
707-CDP3	Kanto Asperity Project: Overview	Kobayashi	n/a		
770-Full2	Kanto Asperity Project: Observatories	Sato	1Ba(1),2Cb(3),2Cc(2)		
782-Pre	Kanto Asperity Project: Plate Boundary Deformation	Yamamoto	n/a		
758-Full2	Atlantis Massif Seafloor Processes	Früh-Green	1Ba(11)		

Kawamura introduced SSP consensus statement from the last meeting.

SSP Consensus 1108-04: SCP should be allowed to hold proposals until all data are in the SSDB and deemed of adequate quality to achieve the scientific goals, to avoid problems with scheduling.

SSP Consensus 1108-05: A Full Proposal should be redefined as including all data in SSDB in addition to the proposal text.

SPC Consensus 1108-03: The SPC received SSP consensus 1108-04 and 1108-05

Katz pointed out the confusion between SSP and EPSP, showing as an example that if SSP dictates that a drill site should be on a crossing line but EPSP finds that that location is not safe, the EPSP moves it off crossing line. Then the relocated site gets a low score upon subsequent SSP review, with the risk that it is then pulled out of OTF even though the site itself is drillable. Li suggested creating a criterion to show which level of the site

classification is good to reject or keep the proposal. Stein also pointed out that the current SSP site classification is too complicated to see if the proposal can go or not. Filippelli commented that after he discussed this at the recent SSP meeting, they realized the problem, and they started to scope out other site readiness schemes at their recent meeting.

#### **7.2. EPSP**

Barry Katz provided EPSP report.

The latest EPSP meeting was held in June 2011, Edinburgh. He reported the review results of the six proposals below.

## [681-Full2 Lesser Antilles Volcanic Landslides]

- Review of 16 sites, two being relocated sites
- Revised locations are considered consistent with the Expedition's scientific objectives

## [644-Full2 Lesser Antilles Volcanic Landslides]

- Review of 10 sites, three being relocated positions
- Confusion about naming convention and site movements had occurred. Sites had retained their original name after being relocated
- Positions of submarine cables and explosive dumps need to be confirmed prior to spud-in
- Gas hazard is thought to be limited, and over-pressure limited to depths greater than proposed

#### [553-Full2 Cascadia Gas Hydrates 2]

- Ten sites were reviewed, three were relocated positions
- New positions and recommended depths included in the panel minutes
- Revised locations are considered consistent with the Expedition's scientific objectives
- CASO3-CORK required verification that no live vent community is present prior to drilling
- EPSP noted several potential safety issues during sampling (the potential for H₂S, Significant core expansion)
- Need to be sensitive to marine mammals

#### [686-Full South Alaska Margin]

- The eight proposed sites requested were recommended for approval as proposed

- Locations are within marine mammal migration paths
- Contingency plans need to be in-place at start of the expedition
- Cruise ships present in the region

#### [637-Full2 New England Margin Hydrogeology]

- Ten sites were reviewed, two represented new locations positioned by the panel
- These locations are provided in the June meeting minutes
- No loss of science program at new location
- No significant hydrocarbon risks were identified, but mild overpressure could be present
- Shallow water hazards survey will need to be completed prior to making final EPSP recommendations
- There may be a need to be prepared to isolate freshwater reservoirs from saltwater zones after drilling
- Marine mammal and fisheries issues are known and can be dealt with in the operational plan

## [705-Full2 Santa Barbara Basin Climate Change]

- Panel reviewed six locations and found that only one location could potentially be approved, but to a depth less than that originally proposed and only after the completion of shallow hazards survey
- Panel discussed go-forward options without proponents in the room
- Another review will be required by the panel
- More complete geologic and geophysical package is needed

The next EPSP meeting will be in June 2012, College Station.

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Allan commented that the Santa Barbara Basin needs a full environmental impact statement along with the legal assessment by NSF. Katz commented that the Santa Barbara Basin goes nowhere unless it is granted by the state of California and NSF, which is unlikely to happen.

#### 7.3 STP

Saito provided STP report. The last STP meeting was held as a web-meeting. The discussion board with voting function was built in to the IODP-MI server. 18 STP members and 26 liaisons/observers discussed 26 agenda items, resulting in 16 consensus statements and 8

action items. After the meeting, they evaluated the efficiency of the web-meeting and summarized it in the following points.

#### Lowlights:

- Hard to fully engage in the e-discussion while engaging in daily work.
- Hard to keep all members engaged/participating in the meeting.
- Hard to keep up with many discussion running in parallel
- Hard to understand the whole information from only shared PowerPoint file.

## Highlights:

- Cost savings for the program and PMOs.
- Plenty of time for discussion and opportunities to comment for everyone
- Quick answers to unexpected questions because members in their office can easily access information or ask their colleagues.
- Easy edit to action items/consensus statements, because everyone has the opportunity to edit through the message board during the discussion. A similar process would be useful during physical meetings.

#### Suggestions:

- Small number of agenda items. Discuss one agenda item at a time and finalize before moving onto the next.
- For particularly important discussions, schedule a Skype session or video conference, even if it occurs at odd hours for some panel members.
- PowerPoint files should be presented with more detailed information in a report or in the "notes" area in PowerPoint for each slide).

Saito introduced the following STP consensuses.

1108E-02: Nomination of external reviewers for a full proposal of Rapid Response Drilling Following the Tohoku Earthquake

The STP nominates one STP member, Dr. Takehiro Hirose, a structural geologist/rock mechanics specialist, as one of the external reviewers for a full proposal of Rapid Response Drilling following the Tohoku Earthquake. STP also nominates Prof. Mark Zoback (Stanford Univ.) and Prof. Georg Dresen (GFZ Potsdam) both fault drilling specialists, as outside reviewers external to the SAS. If this drilling proposal is accepted, STP expects that the IO will provide the measurement/instrumentation plans for STP review as soon as possible.

# 11108E-03: Evaluation of Experimental E-meeting

The STP recognizes that IODP-MI recommended an e-meeting for the final meeting of STP in the current SAS and that this format was selected in part due to scheduling conflicts for a physical meeting. The STP would like to thank IODP-MI, Kevin Johnson and particularly Jamus Collier for their hard work to support the e-meeting and implement suggested changes to the website during the course of the meeting. Based on STP member feedback, STP recommends that future e-meetings be utilized only for a limited number of agenda items or for issues that arise between meetings, with physical meetings scheduled for a full agenda.

#### 1108E-05: New Terms of Reference

The STP has reviewed and revised the new Terms of Reference for this panel in the new SAS. The STP approves the revised ToR (shown below in the Background Information) and notes the following important revisions to that received from IODP-MI:

- 1) Electronic meetings should be for urgent issues only, so agenda items are limited to a small number;
- 2) STP will review the feasibility of proposals that contain non-standard measurements as part of the science rationale; and
- 3) Chair and Vice-Chair positions are defined so the Vice-Chair can have 2 years to learn what is required to be chair before becoming chair for a further two years. This also preserves vital corporate memory on the panel

With these revisions, the STP supports the revised ToR as it will be able to be a fully functional panel in the new SAS, able to make timely and knowledgeable decisions on all things it is mandated to consider.

**SPC Consensus 1108-04:** The SPC received STP consensus 1108E-02, 1108E-03 and 1108E-05.

#### 8. Proposal Review (Rapid Response Proposal)

Members in COI left the room before the proposal presentation starts.

Filippelli explained that SSEP would not review this RRD proposal, but noted that it has enough scientific input from the DPG team itself, the SPC, the numerous external reviewers. Murray commented that having SSEP individuals evaluate the proposal and provide their comments for OTF would not harm. Filippelli noted that the proponents would not be able to do much with the SSEP review after SPC has forwarded it to OTF.

The watchdogs for RRD (Blackman, Kasahara and Li) presented the scientific objectives, the

external reviews and possible SPC recommendations. This was followed by SPC member discussion, and then the floor was opened for comments from everyone. The discussion focused on the proponent's assumption of fault zone permeability and stress field, and technical feasibility.

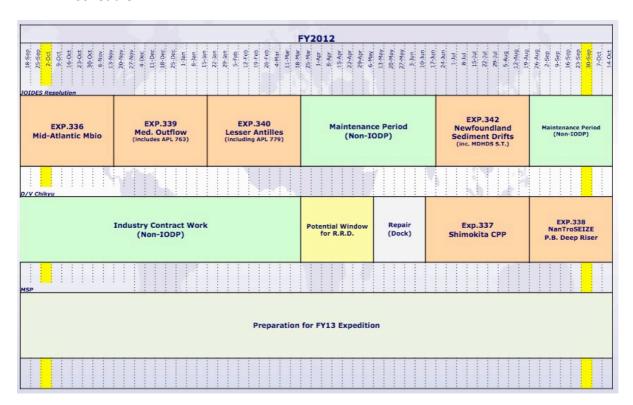
**SPC Consensus 1108-05:** In light of the potential for high scientific and societal returns from JFAST, SPC forwards the proposal to OTF. We acknowledge the potential scientific and technical risks associated with the project management. Pending the results of SSP and other feasibility reviews, we expect implementation of the project by OTF as warranted.

Tuesday 23 August 2011 09:00-17:30

#### 9. OTF Report, schedule overview

Yoshi Kawamura presented the updated ship schedule.

---- FY12 schedule ------



## [JR]

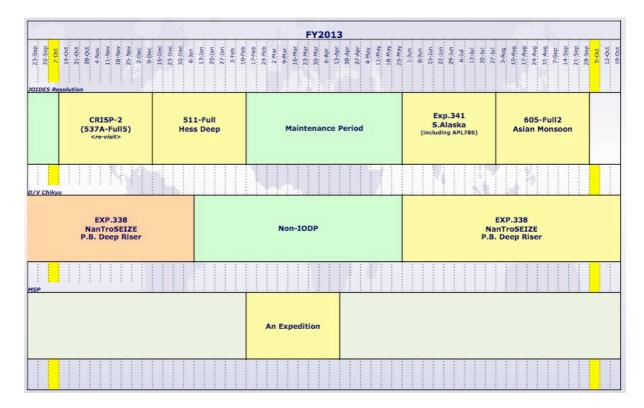
- Add APL 779 Atlantis Massif Lithosphere Hydration on Exp. 340
- Ex. 341 S. Alaska (inc. APL 786) has been postponed

- Potential 4th Expedition, if additional fund will be available
- Add MDHDS Engineering Development Sea Test, during Maintenance Period (ideally just before 4th expedition)

## [Chikyu]

- Oil/Gas Exploration work at Sri Lanka (five thruster mode)
- 6th thruster installation: March 2012
- Exp.337 Shimokita (CPP) from Jun 2012
- Exp.338 NanTroSEIZE (total 4 month operation) TD: 3,600m + RL Observatory at C0010
- Tohoku Rapid Response Drilling (DPG): potential window April June 2012

## ----- FY13 Schedule ------



### [JR]

- Four Expeditions planning, but may reduce to three
- If possible, add SCIMPI Field Trial /Engineering Development Sea Test, during Maintenance

Period (ideally before Exp.341 S. Alaska)

[Chikyu]

- JFY2013 Expedition (April 2013 March 2014)
- Exp.338 NanTroSEIZE (6 months operation) TD: 5,200m Mega-Splay

[MSP]

- 548-Full3 Chicxulub K-T Impact Crater or 672-Full3 Baltic Sea Basin Paleoenvironment

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Smith asked about SCIMPI's schedule. Kawamura replied that it was still under discussion, but if possible, SCIMPI would be just before the South Alaska expedition.

Kasahara commented that CRISP should be scheduled in FY12, because SPC should send out the message that Chikyu can go out of Japanese waters. Früh-Green agreed with Kasahara. Blackman asked the status of the CRISP scoping study. Kawamura replied that CDEX has not started scoping. Larsen commented that mantle drilling is featured in the new science plan, which will take Chikyu out of Japan. And the other proposals except NanTroSEIZE are targeting areas outside of Japan. He is not concerned about Chikyu moving out of Japanese waters in the future. Shibata commented that MEXT would do every effort to provide the riser vessel for scientific drilling, for at least the current level or more, for the next decade, even though MEXT has a similarly fuzzy financial outlook as NSF. Furthermore, Japan would be prepared to send the vessel to anywhere in the world, once the current NanTroSEIZE project accomplishes its original goal.

Kakegawa commented that there are some riser proposals in the system and they can be a contingency for CRISP. Filippelli commented that prioritizing what the next target is for Chikyu is important. Ridley commented that NSF put a large amount of effort into CRISP, and that CRISP would be one of the high priority sciences. Kuramoto (as one of the listed CRISP proponents, but this is only a vestige of long past involvement) noted that the CRISP project has now come to the stage where it is appropriate to discuss the details of implementation with Chikyu.

Feary voiced his disappointment that the Bengal Fan has fallen off the schedule, although it was the top priority and SPC kept asking the proponents to be patient. Blackman agreed with Feary. Stein commented that the Indian Ocean drilling would be a big project at the very beginning of the new IODP, and he noted that there will be the Indian Ocean drilling workshop in Goa, where Indian Ocean drilling proposals will be formulated/advanced for the next phase of scientific ocean drilling. Gallagher commented that he is one of the steering committee members of the Indian Ocean Workshop, and they are very active in communication for the post-2013 plan.

#### 10. Review and Discussion of CPP

### 735-CPP South China Sea Tectonics

Members in COI left the room before the proposal presentation starts.

The lead watchdog (Escartin) presented the scientific objectives and his comments, and the second (John) and third (Umino) watchdogs were also given the opportunity to comment. The liaison from the Site Survey Panel (SSP) and chair of the Environmental Protection and Safety Panel (EPSP) were then given the opportunity to comment. This was followed by SPC member discussion, and then the floor was opened for comments from everyone. In the discussion, a workshop to bring additional expertise and a testable hypothesis are suggested to benefit the proposal.

**SPC Consensus 1108-06:** SPC recognizes the importance of 735-CPP proposal to understand the regional tectonic and climatic evolution of the Western Pacific.

The scientific drilling results will contribute towards the advancement of the IODP science program, and in particular Challenge 9 'How are seafloor spreading and mantle melting linked to ocean crustal architecture? On Theme 4 'Earth connections: deep processes and their impact on Earth's surface Environment'. An updated proposal following detailed comments would also address aspects of climate evolution (e.g., Theme 2, Climate and Ocean Change) more specifically.

The proponents are encouraged to submit an updated proposal that includes the results of recently acquired data, and the outcome of the workshop while addressing specific comments and recommendations provided by SPC.

## 11. Review and Discussion of OTF proposals

## 11.1. Process and products expected from review

Filippelli explained the OTF proposal review process. The purpose is to provide recommendations to the OTF about the priorities of the proposals. The watchdogs should provide a brief summary of the scientific objectives, region of operation, and current readiness for implementation, and then provide a short recommendation about the future of the proposal.

## 11.2. Discussion and summary of proposals

Issa Kagaya presented the list of scheduled OTF proposals.

[FY 12]

	Numbers	Tytle	Ocean	Schedule	P-type	SSP	EPSP	Remarks
2	644-Full2	Mediterranean Outflow	Atl	Exp.339	RL	1Aa,1Ba	approved	763-APL
2	763-APL	lberian Margin Paleoclimate	Atl	(Exp.339)	RL	1A	approved (Remarks)	Contingency sites waitng EPSP approval
1	677-Full	Mid-Atlantic Ridge Microbiology	Atl	Exp.336	RL	2Cc	approved	multilevel CORK
3	681-Full2	Lesser Antilles Volcanic Landslides	Atl	Exp.340	RL	1Aa, 1Ba, 1Bb	approved	(779-APL)
3	779-APL	Atlantis Massif Lithosph. Hydration	Atl	(Exp.340T)	RL	1Aa		
2	661-Full2	Newfoundland Sediment Drifts	Atl	Exp.342	RL	1Bb, 2Ab	No review	
1	745-CPP	Shimokita Coal Bed Biosphere	Pac	Exp.337	R	1Bd	approved	FY11 plan canceled
3	603C-Full	NanTroSEIZE Deep Riser 2	Pac	Exp.338	R	2A, 2B	approved	FY12-13 (4m +5m

## [FY13]

	Numbers	: Tytle	Ocean	Schedule	P-type	SSP	EPSP	Remarks
3	537A-Full5	Costa Rica Seismogen Phase A	Pac		RL	1Bb, 1Bd		Not completed (Exp.334)
3	551-Full	Hess Deep Plutonic Crust	Pac		RL	1Aa	No review	Hardrock
2	686-Full	Southern Alaska Margin 1	Pac	Exp.341	RL	1Aa	approved	FY12 plan canceled (786-APL)
2	786-APL	Alaskan Glacial and Ocean History	Pac		RL	1Ac	approved	FY12 plan canceled (686-Full)
2	605-Full2	Asian Monsoon	Pac		RL	1Aa	most approved	Clearance?
3	603-Full	NanTroSEIZE Deep Riser 3	Pac		R	2A, 2B	approved	FY12-13 (4m + 5m)
3	603-Full	NanTroSEIZE Observatories	Pac		RL(+R)	1A, 1B	approved	

The watchdogs listed below presented their assigned OTF proposal. They explained the scientific objectives, alignment with New Science Plan, operational readiness, site assessment needs before implementation. This was followed by SPC member discussion, and then the floor was opened for comments from everyone. After the panel reached a conclusion, the watchdog was assigned to write the SPC recommendation.

# [11.2.2 Proposals that have been partially implemented]

Proposal #	Short title	Watchdog
477-Full4	Okhotsk/Bering Plio-Pleistocene	Filippelli
522-Full5	Superfast Spreading Crust	Früh-Green
553-Full2	Cascadia Margin Hydrates	Brumsack
601-Full3	Okinawa Trough Deep Biosphere	Smith

# [11.2.3 Non-riser proposals]

Proposal #	Short title	Watchdog
505-Full5	Mariana Convergent Margin	John
549-Full6	Northern Arabian Sea Monsoon	Nishi
552-Full3	Bengal Fan	Stein
595-Full4	Indus Fan and Murray Ridge	Dunbar
603D-Full2	NanTroSEIZE Observatories	Kasahara
633-Full2	Costa Rica Mud Mounds	Umino
659-Full	Newfoundland Rifted Margin	Li
695-Full2	Izu-Bonin-Mariana (IBM) Pre-Arc Crust	Früh-Green
697-Full3	Izu-Bonin-Mariana Rear-Arc Crust	Yamazaki
705-Full2	Santa Barbara Basin Climate Change	Murray
724-Full	Gulf of Aden Faunal Evolution	Feary
732-Full2	Antarctic Peninsula Sediment Drifts	Gallagher

# [11.2.4 Riser proposals]

Proposal #	Short title	Watchdog
537B-Full4	Costa Rica Seismogenesis Project Phase B	Escartin
618-Full3	East Asia Monsoon	Kakegawa

# [11.2.5 MSP proposals]

Proposal #	Short title	Watchdog
548-Full3	Chicxulub K-T Impact Crater	Yamazaki
581-Full2	Late Pleistocene Coralgal Banks	Dunbar
637-Full2	New England Shelf Hydrogeology	John
672-Full3	Baltic Sea Basin Paleoenvironment	Stein
716-Full2	Hawaiian Drowned Reefs	Gallagher
758-Full2	Atlantis Massif Seafloor Processes	Takada

The panel made motions and voted on 477-Full4, 601-Full3 659-Full and 705-Full2.

**SPC Motion 1108-07:** The SPC does not forward Proposal 477-Full4 Okhotsk/Bering Plio-Pleistocene to the new SAS.

Feary moved, Murray seconded, 17 in favor (Blackman, Dunbar, Escartin, Feary, Filippelli, Früh-Green, John, Kakegawa, Kasahara, Kuroda, Murray, Nishi, Smith, Stein, Takada, Umino, Yamazaki), 0 opposed, 0 abstained, 3 non-voting (Brumsack, Gallagher, Li). Motion passed.

**SPC Motion 1108-08:** The SPC does not forward Proposal 601-Full3 Okinawa Trough Deep Biosphere to the new SAS.

Murray moved, Früh-Green seconded, 14 in favor (Blackman, Dunbar, Escartin, Filippelli, Früh-Green, John, Kakegawa, Kasahara, Murray, Smith, Stein, Takada, Umino, Yamazaki), 2 opposed (Kuroda, Nishi), 1 abstained (Feary), 3 non-voting (Brumsack, Gallagher, Li). The motion passed.

**SPC Motion 1108-09:** SPC returns Proposal 659-Full Newfoundland Rifted Margins to the SAS system and encourages the proponents to select more suitable sites and to take into consideration comments in previous SPC reviews.

Früh-Green moved, John seconded, 17 in favor (Blackman, Dunbar, Escartin, Feary, Filippelli, Früh-Green, John, Kakegawa, Kasahara, Kuroda, Murray, Nishi, Smith, Stein, Takada, Umino, Yamazaki), 0 opposed, 0 abstained, 3 non-voting (Brumsack, Gallagher, Li). The motion passed.

**SPC Motion 1108-10:** SPC returns Proposal 705-Full2 Santa Barbara Basin Climate Evolution to the SAS system and encourages further development of the site assessment and safety characterization in consultation with the operators.

Murray moved, Blackman seconded, 17 in favor (Blackman, Dunbar, Escartin, Feary, Filippelli, Früh-Green, John, Kakegawa, Kasahara, Kuroda, Murray, Nishi, Smith, Stein, Takada, Umino, Yamazaki), 0 opposed, 0 abstained, 3 non-voting (Brumsack, Gallagher, Li). The motion passed.

The following consensus was built from discussion on 633-Full2 to support CORK and other observatories.

**SPC Consensus 1108-09:** SPC Recognizes that borehole observatories (e.g., CORKS, Smartplugs, and others similar borehole-installed instrument packages) are necessary to address numerous goals of the new science plan. For this initiative to be successful, in addition to securing funding for such installations and their operation through an extended period of time. SPC stresses that a link to existing seafloor observatory programs is necessary, and that this task should be undertaken by SIPCOM. Aspects to be included are operations and maintenance of observatories, data management and distribution, and coordination of field operations, among others.

Wednesday 24 August 2011 09:00-17:00

## 12. Discussion and Prioritization of MSP scheduling

Filippelli explained that SPC needed to prioritize which MSP will be implemented in FY13. The choice is between the Chicxulub and the Baltic Sea Paleoenvironment. SPC also needed to decide which inexpensive MSP would be an additional opportunity in the case that funds remaining after MSP drilling in FY13 allowed for the implementation of one more expedition. He added the information from ESO report that the Atlantis Massif and Coralgal Banks are inexpensive. Hawaiian Drowned Reefs is not necessarily expensive but it would be very well suited for post-2013 operations.

Blackman recommended that Chicxulub have the highest priority in FY13 because it has maintained a very high-profile. Murray, Feary and Kasahara agreed with Blackman.

Brumsack suggested holding the Chicxulub for the future (i.e., FY14) when it will have a tighter connection with ICDP, and he recommended the Baltic Sea for FY13, because it could gain new membership from Europe.

Stein commented that the Chicxulub has top science, but the Baltic Sea also has top science and political advantage in getting new partners from Europe. Kakegawa recommended the Baltic Sea because it could bring missing data in paleoenvironment history

Nishi recommended the Baltic Sea, expecting new data of paleoenvironmental change in high-latitude regions.

Dunbar recommended the Baltic Sea only if the Chicxulub is secured as a future drilling target for the new program.

Kuroda recommended the Baltic Sea because Chicxulub already has a conclusion that the K-T impact is caused by extraterrestrial impact, but the Baltic Sea still has a lot of room for new science.

Li recommended Chicxulub because it could increase visibility of the IODP and attract more people.

Gallagher recommended the Baltic Sea, because the Baltic Sea is slightly ahead in terms of societal understanding. Understanding about climate change would more connect to people's future than meteorite impact.

Takada recommended Chicxulub, because it is a new science in the IODP, while there are many proposals for climate change like the Baltic Sea.

The panel took a straw vote and settled with the following consensus.

**SPC Consensus 1108-12:** The SPC recommends that two proposals, Baltic Sea Paleoclimate and Chicxulub Impact Crater, continue active scoping and that both of these proposals be implemented in FY13 and FY14. These proposals have different scientific objectives, and both constitute clearly exciting science of the highest impact. The SPC recommends that the Baltic Sea Paleoclimate be prioritized for implementation in FY13, and that Chicxulub Impact Crater be implemented in FY14. This timing will allow for additional potential positive linkages to be forged for the Chicxulub project with ICDP, thus maximizing the impact of this effort.

The members with COI on the Atlantis Massif MSP project left the room.

Filippelli opened the discussion about an MSP cruise in addition to the Baltic Sea. He explained that SPC should prioritize an inexpensive project in the event that remaining funds in FY13 allows for one additional expedition. The candidates are the Atlantis Massif and the Coralgal Banks from a financial point of view.

Stein recommended the Atlantis Massif, because its science is new.

Feary pointed out that Atlantis Massif is twice as expensive as Coralgal Banks. Mével commented that Coralgal Banks is much less expensive and the proponents were looking for additional funding to turn it to a CPP.

Filippelli asked if there was any member who opposes the consensuses that SPC prioritizes the Atlantis Massif as the preferred option in FY13. No one opposed.

**SPC Consensus 1108-13:** SPC prioritizes Proposal 758-Full2 Atlantis Massif Seafloor Processes as the first option for additional operations beyond Baltic Sea Paleoclimate during FY13 if funds are available.

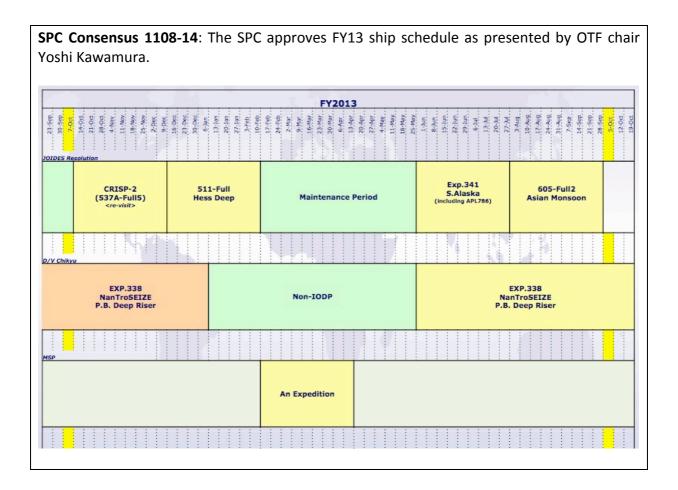
## 13. OTF Report: IODP expedition scheduling II

Kawamura showed the same ship schedule as he showed in agenda 9. Filippelli explained to the panel members that SPC typically approves the drilling schedule by consensus.

Larsen asked USIO if the Chinese CPP has any chance to be scheduled by FY 13 (Li left room because of his COI). Filippelli asked if there would be a possibility that the Asian Monsoon will shift over and be replaced by the CPP. Divins replied that if the CPP needs to happen in FY13, it will have to happen. Filippelli noted that if the CPP is approved for a fiscal reason, it's required to be drilled in FY13, and then it might slide into the Asian Monsoon's window, and then Asian monsoon will be shifted to FY14.

Filippelli asked if there is any member who is concerned about the FY13 schedule. No one

voiced his/her concern. FY13 drilling schedule was approved by consensus by the SPC.



### 14. SPC discussion of proposal lifespan in the new SAS

Filippelli explained that the new SAS system has a different proposal flow from the current SAS system. The crux of the difference is that proposals are allowed only one round of revision before external review. He asked the members if they think only one round revision is adequate for proposals. He also asked them if they think there should be a time constraint for proponents to come back to PEP after the first review.

Brumsack asked if pre-proposals can be revised and re-reviewed as pre-proposals.. Filippelli replied no. Brumsack voiced his concern that the one-round revision system would be very difficult for new proponents to succeed in developing OTF-level proposals. Murray commented that it is functionally the same as the current system, because pre-proposals are allowed only one revision before being developed to Full proposals. Mével commented that workshops will take over the role to educate proponents on how to develop a full proposal. Filippelli commented that PEP will need to be careful not to discourage the people who are not familiar with the program.

Feary commented that there is no need for a time constraint because it will be up to the

PEP to assess whether the proposed science is still current.

Smith commented that there would be no problem in giving an extended time to the proponents for submittal of invited full proposals.

Dunbar commented that PEP could check in with proponents periodically to see if they have dropped the proposal or they are waiting for some new data or other developments..

Blackman commented that if the proponent takes too long to submit their revised proposal, PEP reviews the proposal with that negative information. Thus, it is better if no time constraint exists.

In the discussion, "no time constraint" gained predominance, and Filippelli concluded that no time constraint is recommended by SPC. He invited the member's comment on the single revision rule.

Smith commented that if re-submission is allowed, and PEP could know whether they were truly revised or not, the single revision would not be a problem.

Filippelli asked if any member opposes the single revision system. No one did. He concluded that SPC approved a single revision and no time constraint.

### 15. Other business

Murray and Blackman drafted a SPC consensus about the future model of post-2013 scientific ocean drilling. Murray presented the consensus text on the screen. He explained that his intention was not to fight the new funding model, but to make a strong statement that the overarching vision is the new science plan that was constructed in open forum and with input of hundreds of international scientists. Regardless of where the funding comes from for an individual platform, those scientific objectives are achieved by international participation.

Brumsack pointed out the importance of keeping the core repositories, which were a big step forward from the ODP system. Nishi agreed with Brumsack. Escartin commented that the integration is needed not only for the core repository but also at all levels.

Früh-Green suggested stating more clearly that IODP SAS needs to be an overarching structure and it should not be only for the US. Escartin agreed with Früh-Green. Blackman commented that an international group overseeing the program has been IODP's strength. Brumsack commented that the program should not be dominated by American needs.

Dunbar commented that it's too early to say that it must be one structure for all platforms, and we need to wait for more information about financial arrangements.

Feary commented that the current SAS and new SAS are optimized to support JR-type operations, but are not appropriate for Chikyu-type operations because of the long lead time needed for projects and the extended duration of projects. Blackman commented that the JR alone cannot accomplish the new science plan and the SPC looked for an advisory structure that can function in the best way possible with resources available.

**SPC Consensus 1108-15**: SPC acknowledges there will be a new funding model for post-2013 scientific ocean drilling. In light of the recent communication from the U.S. NSF, SPC wishes to emphasize the following guiding principles, independent of the on-going national and international financial discussions:

- --The internationally developed science plan, "Illuminating Earth's Past, Present, and Future", remains the over-arching vision that provides the scientifically-driven suite of highest priority objectives using multiple platforms in the coming decade.
- --Significant participation by the international scientific community in the Science Advisory Structure and implementing the next phase of scientific ocean drilling is essential. Expertise from throughout the international community will be required to achieve the strongest possible scientific outcomes.
- --Access to a variety of programmatic resources, such as drilling platforms (including nonriser, riser, and MSPs), repositories, legacy and future cores, data and metadata, will be desired by members of all participating countries, and the new program should make every effort to enhance and streamline such international collaborations of personnel.
- --All possible avenues to increase the operations time of the individual platforms should be pursued.

SPC further wishes to thank IWG+ and personnel at the different national funding agencies for their dedication and pursuit of a successful post-2013 scientific ocean drilling program.

## 16. Review of motions and consensus statements

The consensus statement to express SPC's gratitude to the field trip organizers, the local host, and SPC chair are approved.

**SPC Consensus 1108-16**: The SPC expresses their sincere appreciation to Takeshi Kakegawa, Daisuke Sugawara, Akiko Fuse, and Hiroshi Nishi for organizing and leading the field trip to Mt Zao, and the area around Sendai influenced by the March 11, 2011 M9 Tohoku megaearthquake and tsunami. We were granted a poignant reminder of the power of the Earth, its devastating effects and tremendous human tragedy – a humbling lesson none of the trip participants will ever forget.

**SPC Consensus 1108-17**: The SPC thanks our local host, Professor Takeshi Kakegawa, for an incredible meeting. Together with the able assistance and organization of Mrs. Akiko Fuse,

Professor Kakegawa made this final meeting of the SPC a memorable meeting. From the efficient and thorough arrangement of travel for participants, the clear instructions on using the Japanese bath, the wonderful, and delicious, reception on the first day, and the excellent choice of meeting location and meals, this meeting was thoroughly enjoyable and memorable. We thank you for a special meeting, and wish the best of luck for all of those affected by recent tragic impacts in this area.

**SPC Consensus 1108-18**: Gabe - SPC offers its most sincere thanks for your many years of service to the international scientific drilling community. We thank you for your thoughtful, patient, and gentle guidance as Vice Chair and then Chair of SPC, your unfailingly constructive wisdom, your quiet and effective leadership, and your spectacular ability to achieve consensus where none seemed possible—all done with a smile. Enjoy your break - we have no doubt that the community will call on your experience and skills in the future.

Filippelli thanked everyone for their participation and willingness to work together. Filippelli adjourned the meeting at 15:45.