



13th Meeting of the ECORD Science Support & Advisory Committee ESSAC

M I N U T E S 03rd - 04th November 2009 Radisson Blu Hotel Oulu, Finland



Table of contents

List of participants

Introduction	1-2
IODP News	2 - 13
ECORD News	13 - 20
Nominations and Staffing	20 - 24
Education and outreach	24 - 27
Workshops, communication and vision	27 - 30
Next meetings	30

ESSAC Office

Ruediger Stein (Chair) Jeannette LeziusESSAC Delegate Germany
ESSAC Science Coordinator

ESSAC Representatives

Fatima Abrantes ESSAC Delegate Portugal

Gretta Bartoli ESSAC representative Switzerland

Neil BanerjeeESSAC Delegate CanadaGilbert Camoin (vice-chair)ESSAC Delegate FranceAnneleen FoubertESSAC Alternate Belgium

Anneleen Foubert

Rachael James

Nalan Koç

ESSAC Alternate Belgium
ESSAC Delegate UK
ESSAC Delegate Norway
ESSAC Delegate Ireland
ESSAC Delegate Ireland
ESSAC Delegate Sweden

Kari Strand (meeting host) ESSAC Delegate Finland

Observers/Guests

Jochen ErbacherESF Magellan WorkshopsAnnakaisa KorjaESSAC Alternate Finland

Patricia MaruéjolEMACatherine MévelEMA

Heiko Pälike Co-chief PEAT-1

Alan Stevenson ESO

Apologies

Bryndís Brandsdóttir

Menchu Comas

ESSAC Delegate Iceland

ESSAC Delegate Spain

Elisabetta Erba

ESSAC Delegate Italy

Gudrun Helgadottir

ESSAC Alternate Iceland

Paul Cornils Knutz

ESSAC Alternate Denmark

Lucas Lourens

ESSAC Delegate Netherlands

Judith McKenzie ESSAC Delegate Switzerland
Werner Piller ESSAC Delegate Austria

Marit Solveig Seidenkrantz ESSAC Delegate Denmark
Michael Wagenreich ESSAC Alternate Austria
Helmut Weissert ESSAC Alternate Switzerland

1. Introduction

1.1 Call to order, introductions

R. Stein welcomed all ESSAC delegates, observers and invited guests to the 13th ESSAC Meeting in Oulu. He thanked K. Strand for the organization and logistics of the meeting and the fieldtrip.

The ESSAC meeting started with the self-presentation of each participant.

1.2 Welcome and meeting logistics

K. Strand gave an overview about the general logistics as indicated in the agenda book.

1.3 Discussion and approval of the Agenda

- R. Stein called the ESSAC delegates attentions to changes in the agenda:
- N. Koc was asked to take over the coordinator position for E. Erba for "Breakout session Workshops, Communication and Vision" (cf item 8.3). She agreed.
- G. Camoin was asked to take over the coordinator position for L. Lourens for "Breakout session Nomination and staffing" (cf item 4.3). He agreed.
- H. Pälike was asked to take over the presentation of the ECORD Urbino Summer School 2009.

Workshop report items 8.2.1 and 8.2.3 were deferred as M. Comas and E. Erba did not attend the meeting.

R. Stein asked the ESSAC delegates, if they wished to add any other item on the agenda. The ESSAC delegates denied and approved the agenda.

ESSAC Consensus 0911-01: ESSAC approves the agenda of its 13^{th} meeting on November 03^{rd} - 04^{th} , 09 at the Radisson Blu Hotel in Oulu, Finland.

1.4 Approval of the Minutes of the 12th ESSAC Meeting in Sesimbra

R. Stein pointed on the fact that item 6.2.3 in the Meeting Minutes #12 appears 2 times; items will be combined under 6.2. The ESSAC delegates were asked if they would like to add any comments on the Meeting Minutes, they denied and approved the Minutes.

ESSAC Consensus 0911-02: ESSAC approves the Minutes of its 12th meeting on May 26–27, 09 at the Hotel do Mar in Sesimbra, Portugal.

1.5 Items since the 12th ESSAC Meeting/ESSAC Office news

G. Camoin summarised the undertakings and the action items that the ESSAC Office had be done and fulfilled during the reporting period from May 09 to October/November 09.

Part of the undertakings (and the fulfilment of the related action items) are centralised in the respective thematic themes, and details are given by the respective lecturers.

> **ESSAC Action Item 0905-01**: The ESSAC office will issue a call to nominate new ECORD EDP panel members in June 09.

DONE: The ESSAC Office issued a call on June 10th, 2009 with a deadline at July 12th, 2009. The deadline has been then extended to September 4th, 2009.

> **ESSAC Action Item 0905-02**: The ESSAC office will issue a call to nominate new ECORD SSEP panel members in June 09.

DONE: The ESSAC Office issued a call on June 11th, 2009 with a deadline at July 12th, 2009. The deadline has been then extended to September 4th, 2009.

> **ESSAC Action Item 0905-03**: ESSAC welcomes the future development of the monitoring of statistics data.

ON HOLD: Action item left for the ESSAC Office in Bremerhaven.

> ESSAC Action Item 0905-04: The ESSAC delegates will send suggestions to the ESSAC office regarding the future incoming chair.

ON HOLD, to be discussed before and at ESSAC#14 Meeting.

> **ESSAC** Action Item 0905-05: Following the decisions of the co-chiefs from Expedition 325 to replace D. Sanders by J. Braga, ESSAC will recommend to D. Sanders to send a sample request, so that he could be able to be considered as a shore-based scientist, if the sample request is accepted by SAC.

DONE.

> **ESSAC** Action Item 0905-08: The new ESSAC Office located in Bremerhaven will create a template for the letter of support for the ECORD Scholarships.

ON HOLD but the letter will be presented at this meeting, item 7.2.

> **ESSAC** Action Item 0905-9: The new ESSAC Office located in Bremerhaven will create a template for the letter of support for the ECORD grants.

ON HOLD but the letter will be presented at this meeting, item 7.2.

- R. Stein took over to introduce the new ESSAC Office which is now located at AWI Bremerhaven. He thanked G. Camoin and B. Wolff-Boenisch for their effort leading ESSAC and running the ESSAC Office during the last two years at CEREGE/Aix-en-Provence.
- R. Stein described the application procedure for new ESSAC Science Coordinator. Jeannette Lezius was chosen out of 12 applications.

1.6 ESSAC FY10 Budget

R. Stein presented the ESSAC budget FY10 that has been approved at ECORD Council Meeting #15 (Lisbon, June 2009) with a total ECORD contribution of 167100€.

2. IODP News

2.1 Lead Agencies and Implementing Organizations

C. Mével reported about news within NSF, USIO, MEXT, CEDEX and IODP-MI. C. Mével presented the FY 10 approved by Lead Agencies.

NSF

- NSF had a substantial "one shot" budget increase resulting from the Recovery Investment Act. 25 M\$ will go to drilling operations and site surveys.
- 3D site survey at CRISP funded, CRISP = good candidate for riser drilling in a new program.
- The contract for the JOIDES Resolution is signed until 2013, with an option for renewal at good financial conditions. A hiatus would create problems.
- NSF is seeking for a Director at Division of Ocean Sciences (OCE), Directorate for Geosciences, to replace Julie Morris.

USIO

- The Consortium for Ocean Leadership has appointed Brad Clement as the IODP Director at TAMU.
- The JOIDES Resolution is about to finish the Shatsky Rise expedition (IODP), the fourth following the refit (PEAT1 and 2/Juan de Fuca, Bering Sea). The schedule for FY11 is being organized.
 - Negotiation with Korea for a gas hydrate project still ongoing.
- There is need to find commercial work to be able to fund 8 month of IODP cruises. ODC did not succeed. Bad timing for the oil industry.

MEXT

- Masa Hori has rotated off on September 30th.
- New Director at MEXT is Shingo Shibata. He will attend the ECORD Council in Rome.
 - Worry that the new government in Japan may cut substantially the IODP budget.

FY09: ~5 months of expedition

- NanTroSEIZE Stage 2: Riser/Riserless Observatory 1
- NanTroSEIZE Stage 2: Subduction Input
- First riser drilling with IODP

FY10: <1 month, at the end of the year

Difficulties with the Kuroshio Current. Discussions for the contingency plan.

Average of 5 months drilling per year. In reality, not very obvious.

CEDEX is also looking for commercial work when the ship is not operating within IODP.

IODP-MI

Kiyoshi Suyehiro, the new IODP-MI president, is organizing the consolidation of the two IODP-MI offices in Sapporo and Washington into a single one located in Tokyo, starting January 2^{nd} . \rightarrow Consequence: major changes in personal:

- The Washington office staff will not move
 - Tom Janecek and Nancy Light are already gone.
- Only one VP: Hans Christian Larsen.
- Jobs opened: Seeking for international application \cdot Manager of drilling operations \cdot Manager of outreach and communication \cdot Associate data and information manager.

Triennial review of IODP

- It is a contractual activity. This second triennial review will focus on effectiveness of IODP science planning.
- The review committee will have 8-10 members, largely outside of the IODP community. This report should help define the structure of the new program.
- The committee is probably set up now. The report should be delivered by June next year.

IODP-MI Board of Governors:

- Chair = Brian Taylor

- ECORD representatives: John Ludden (UK)

Hans Thierstein (Switzerland) Gerold Wefer (Germany)

2.2 SAS Executive Committee (SASEC), IODP Council and IWG+

C. Mével gave reports about the SASEC meeting June 15-16, 2009, in Washington DC., IWG+ and the ECORD Council meeting June 9-10, 2009, in Lisbon.

SASEC meeting: June 15-16, Washington DC

- ECORD representative: Nick Arndt
- Gerold Wefer not able to attend, no alternate
- New SASEC member: Jan De Leeuw
- SASEC still has difficulties to approve the APP → Timing problem
- New SASEC chair: Maureen Raymo is highly involved in IWG+
- Next meeting: Korea, January 2010 before IWG+ meeting

SASEC Consensus 0906-04: SASEC approves the FY2010 annual program plan presented at its June 2009 meeting and recommends approval to the Board of Governors.

SASEC Consensus 0906-06: SASEC endorses the report of the second thematic review committee on IODP contributions toward understanding "Ocean Crustal Structure and Formation", and applauds and thanks the committee for an excellent report on this exciting field of science.

SASEC Consensus 0906-07: SASEC will wait another year before determining the subject of the next thematic review. The third thematic review on "Deep biosphere and sub-seafloor ocean" is to be carried out in September 2009.

SASEC had appointed a subcommittee to discuss the current structure of the program and the relationships between the BoG, SASEC and SPC.

SASEC Consensus 0906-08: Having discussed the report of the subcommittee that evaluated the Board of Governors/SASEC/SPC structure, SASEC is reinvigorated in performing its mandate to carry out its executive authority to endorse the science plan (in January) and annual program plan (in June), and to be the caretaker of the Initial Science Plan implementation and long range science planning. We thank the subcommittee (John Hayes, Hodaka Kawahata and Gerold Wefer) for their provocative and constructive input.

Most of SASEC activities: prepare for INVEST and the new science plan

SASEC Consensus 0906-09: A SASEC INVEST subcommittee is formed with the tasks of: (1) nominating potential members for the Science Plan writing group, for SASEC email approval in October 2009; and (2) reporting to the January 2010 SASEC meeting. The subcommittee plus any other available SASEC or SASEC-elect members or INVEST steering committee members should meet in Bremen on the evening and/or morning after the INVEST meeting. Subcommittee members: Maureen Raymo, Nick Arndt, Keir Becker and Kenji Kato.

Further information is given in the Minutes of that meeting: http://www.iodp.org/index.php?option=com_docman&task=doc_download&gid=2775.

<u>International Working Group +</u>

Meetings:

The decision to create this group was made at the IODP Council meeting in Lisbon, January 2009. Two meetings have already happened:

- IWG+ #1: Washington DC, June 09
- IWG+ #2: Bremen, September 2009

Next meetings:

- Informal meeting at AGU
- IWG+#3: Korea, January 2010
- IWG+ #4: Tokyo, June 2010

Membership:

- 3 co-chairs: NSF (R. Batiza), MEXT (S. Shibata) and ECORD (C. Franklin, replaced by C. Mével)
- Members: Representatives from all funding agencies currently participating in IODP or interested in participating in the future program
- ECORD representation: Mike Webb (UK), Guido Lüniger (Germany), Mireille Perrin (France), Fernando Barriga (Portugal), Jose Sanchez-Quintana (Spain), Anne De vernal (Canada), Catherine Mével (EMA)
- Observers: IOs, scientific community (SASEC chair and vice-chair), others as required.

Information about IWG+ activities posted on the IODP website http://www.iodp.org/iodp-council/2/.

Vision of IWG+

The vision of the IWG+ is to frame a new multinational program architecture that promotes delivery of the best possible and most exciting and relevant science to the broad science community and the public through scientific ocean drilling.

Mission of IWG+

The mission of the IWG+ is to design a new drilling program,

- that contributes to the unification of the international ocean research community to explore the Earth,
- that advances future research and discovery through dissemination of data and samples from the drilling,
- that seeks to expand the international sharing of intellectual and financial resources,
- that is simple, efficient, and able to deliver go/no-go decisions on drilling proposals fairly and quickly,
- that operates in the most efficient and effective way, at the lowest possible costs, such as administration and management costs throughout all the elements of the new drilling program.

That is driven by scientific questions and is thus open to seek collaborations with programs using methodologies and infrastructure that may be necessary to complement drilling.

<u>Input from IWG+ to INVEST: distributed to the meeting participants</u>

Scope of the Program

- 1. The new drilling program will maintain and develop international cooperation.
- 2. The new drilling program is open to a broad range of scientific communities and program collaborations (including geosciences and others).
 - 3. In principle, the program will be 10 years.

Science Plan

- 4. Output of INVEST will be used by the Science Plan Writing Group to write the new science plan, which will define the strategy for the new program.
 - 5. The new science plan must emphasize science relevant to society.
- 6. The new science plan will have to include firm deliverables, yet be flexible to include emerging science.

Science Community Input

- 7. The scientific community should consider ambitious, transformative new science for the new drilling program.
- 8. In addition to identifying new opportunities for the program, the scientific community is challenged to develop the key strategic themes that will underpin the funding case for international ocean drilling post-2013.
 - 9. The scientific community must prioritize its science objectives.

Platforms

10. The scientific community should assume that the JOIDES Resolution (JR), the Chikyu and Mission Specific Platforms (MSPs) will be available to the new program with

the following estimated guidelines for the first 5 years: JR: 35-60 months; Chikyu: around 25 months; MSPs: at least 5 expeditions.

- 11. The scientific community should consider what science could be done based on the unique and emerging capabilities of each platform and technological developments.
- 12. The scientific community should note that the planning processes would have different lead times for each platform and/or scale of projects. In particular, deep drilling projects that require riser capability need a very long lead-time, and therefore, a different planning process is necessary where early selection should be made. In this context, the science community is requested to identify attractive candidates for possible riser drilling projects in the new science plan.

Process list

- IWG+ will frame a new multinational program architecture (lead: Batiza and MEXT, +Mével). Propose models for starting positions (Federation vs current model)
- Financial contributions to the new program (leads: Batiza and MEXT, + Mével). Address scales of monetary contribution, money flow; the rights of contributors; responsibilities of contributors; benefits in kind
- Program management (leads: Batiza, Mevel with help from Divins, Larsen, and Suyehiro). Propose models for (and functions of) the CMO, consider the role of IOs
- SAS structure (lead: Yeats with help from Larsen, Becker, Mével). Provide guidance on how to process proposals for the new program. Propose a new proposal submission and review process. Does each vessel need its own planning committee?
- Transition plan (leads: Mevel, Divins). Create a work breakdown schedule for transition to post-2013

Timeline

- Architecture finalized by May 2011.
- For the science plan, the result of INVEST is essential. Writing group set up, build on INVEST to write the science plan. Membership being finalized by SASEC, approval by IWG+ early November. First draft of the Science plan: June 2010. Internal review: Oct 2010. External review: January 2011. Completion: April 2011.
 - 5 years implementation plan prepared by the funding agencies/IOs: April 2011
 - Presentation to NSF Science Board, other funding agencies: early 2012
 - For decision at the end of 2012
 - All the MoUs have to be prepared and signed before the start of a new program
- C. Mével announced the IODP Town Hall Meeting at 2009 AGU Fall Meeting Tuesday, 15 December 2009, The W San Francisco, 181 Third Street, Great Room 1 & 2.

2.3 Science Steering Evaluation Panel – SSEP

H. Pälike reported about the 12^{th} Meeting of the Science Steering and Evaluation Panel (SSEP), on May 25^{th} to 28^{th} , 09 at the Grand Hotel Karel V Utrecht, in Utrecht, Netherlands.

H. Pälike gave information about the **proposal statistics**:

Proposals: 23 submitted proposals (Environment: 13, Solid Earth: 7, Deep Biosphere: 3). A total of 113 active proposals (Environment: 47, Solid Earth: 42, Deep Biosphere: 24) are in the system.

Distribution by

- IODP Members: US: 47, ECORD: 43, Japan: 18, ANZIC: 3, China: 2.
- **Oceans**: Pacific: 54, Atlantic: 25, Indian: 13, Southern Ocean: 7, Arctic: 6, Mediterranean: 5.
 - **Panels**: SSEP: 54, OTF: 29, SPC: 21, Holding Bin: 6.

The 23 proposals were reviewed, and the **dispositions** are as follows:

- Pre-Proposal: request Pre2 Proposal = 4; 743P1 (Gulf of Mexico Hydrate Dynamics), 746P1 (Arctic Mesozoic Climate)
- Pre-Proposal: request Full Proposals = 5; 730P2 (Sabine Bank Sea Level), 745P1 (Shimokita Coal Bed Biosphere), 747P1 (North Atlantic Paleogene Climate), 749P1 (Gulf of California Rifting & Microbiology), 751P1 (West Antarctic Ice Sheet Climate)
- Full Proposal: request revision = 2; 645F3 (North Atlantic Gateway), 737F1 (North Sea Cenozoic Clim. Change)
 - CDP umbrella proposal: revise = 1; 707CDP2 (Kanto Asperity Project (Overview))
- Full Proposal: send for External Review = 2; 672F3 (Baltic Sea Basin Paleoenvironment), 748F1 (Nice Airport Slide)
- Full Proposal: request new submission/deactivate = 2; 707AF2, 707BF2 (Kanto Asperity Project)
- Pre Proposal: request new submission/ deactivate = 2; 744P1 (Indian Ocean HyperSLIME), 751P1 (Kanto Asp Project Plate Boundary Deformation)
- APL: request new submission/deactivate = 1 736APL2 (Gulf of Mexico Paleoclimatology)

In more detail, H. Pälike reported on the 548F3:"Chicxulub K-T Crater"-, the 681F2:"Lesser Antilles Land Slides"-, the 732F2:"Antarctic Peninsula Sediment Drifts"-, and the 742-APL:"High-resolution Geomagnetic and Paleoceanographic Record from IODP Site 1208, Shatsky Rise, NW Pacific"- proposals. These proposals were forwarded to SPC for ranking.

H. Pälike reported on the SSEP input to <u>INVEST</u> for high priority science objectives of the new program.

SSEP Consensus 0905-4: The SSEP supports the INVEST Steering Committee Program of scientific themes and breakout groups as presented at the meeting.

<u>New SSEP co-chair</u> replacing H. Pälike, at the November 2009 meeting, is Henk Brinkhuis.

Next SSEP Meetings: #13: Melbourne, 16-19th November 2009, #14 Japan, May 2010, #15 Portland, November 2010.

Further information is given in the Minutes of that meeting: http://www.iodp.org/index.php?option=com_docman&task=doc_download&gid=2735

2.4 Science Planning Committee SPC and Operation Task Force OTF

R. Stein gave a summary about the outcomes of the 14th IODP Science Planning Committee meeting at IFM-GEOMAR, University of Kiel, August 25th to 27th, 09. He reported on currently scheduled projects 2009/2010.

Expedition	Drillship	Dates
Pacific Equatorial Age Transect (PEAT)	JR	March 5 - May 5, 2009
New Jersey Shallow Shelf	MSP	May - August 2009
Pacific Equatorial Age Transect (PEAT)/Juan de Fuca	JR	May 5 - July 5, 2009
NanTroSEIZE 2 - Riser/Riserless Observatory 1	Chikyu	May 5 - August 31, 2009
Bering Sea	JR	July 5 - Sept. 4, 2009
NanTroSEIZE 2 - Subduction Input	Chikyu	Sept 1 - Oct. 10, 2009
Shatsky Rise	JR	Sept. 4 - Nov. 4, 2009
Great Barrier Reef Environmental Changes	MSP	Nov Dec. 2009
Canterbury Basin	JR	Nov.4, 2009 - Jan.4,2010
Wilkes Land	JR	Jan. 4 - March 9, 2010

Table of currently scheduled projects.

Dates for the Great Barrier Reef Environmental Changes Expedition have been postponed to February 2010.

Proposals already scheduled or ready for scheduling (i.e. sitting at OTF) are:

December 11D	Despesal Name	Banking Fooden	Donk	Titor.	Ossan	Status
Proposal ID	Proposal Name	Ranking Session	Rank	Tier	Ocean	Status
519-Full2	South Pacific Sea Level (Tahiti and GBR)	Sep 03; Sapporo	1	-	PAC	Tahiti comp GBR scheduled
545-Full	Juan de Fuca Hydro	Sep 03; Sapporo	3	-	PAC	Partially Completed -TBS
564-Full	New Jersey Sea Level	Sep 03; Sapporo	4		ATL	Scheduled
603A-Full2	NanTroSEIZE Phase I	Jun 04; Yokohama	2		PAC	Scheduled
603B-Full2	NanTroSEIZE Phase II	Jun 04; Yokohama	3		PAC	Scheduled
477-Full4	Okhotsk/Bering Pliocene/Pleistocene	Jun 04; Yokohama	4		PAC	Bering Scheduled / Okhostk TBS
482-Full3	Wilkes Land	Jun 04; Yokohama	.5		PAC	Scheduled
600-Full	Canterbury Basin	Jun 04; Yokohama	7		PAC	Scheduled
603C-Full	NanTroSEIZE Phase III	Mar 05; Lisbon	1		PAC	Scheduled
595-Full3	Indus Fan and Murray Ridge	Mar 05; Lisbon	2		IND	TBS
626-Full2	Pacific Equatorial Age Transect	Mar 05; Lisbon	3		PAC	Scheduled
677-Full	Mid Atlantic Ridge Microbiology	Mar 06; St Petersburg	1	1	ATL	TBS
603D-F2	NanTroSEIZE Observatories	Mar 06; St Petersburg	2		PAC	Scheduled
605-Full2	Asian Monsoon	Mar 06; St Petersburg	4		PAC	TBS
505-Full5	Mariana Convergent Margin	Mar 07; Osaka	1	1	PAC	TBS
724-Full	Gulf of Aden Faunal Evolution	Mar 08; Barcelona	1	1	IND	TBS
601-Full3	Okinawa Trough Deep Biosphere	Mar 08; Barcelona	2	1	PAC	TBS
644-Full2	Mediterranean Outflow	Mar 08; Barcelona	3	1	ATL	TBS
537B-Full4	Costa Rica Seismogenesis Project Phase B	Mar 08; Barcelona	7	1	PAC	TBS
654-Full2	Shatsky Rise Origin	Mar 08; Barcelona	12		PAC	Scheduled
636-Full3	Louisville Seamount	Mar 09; Miami	1	1	PAC	TBS
662-Full3	South Pacific Gyre Microbiology	Mar 09; Miami	2	1	PAC	TBS
522-Full5	Superfast Spreading Crust	Mar 09; Miami	8		PAC	TBS
537A-Ful15	Costa Rica Seismogenesis Phase A	Mar 09; Miami	9		PAC	TBS
HOLDING BO	OX.					
705-Full2	Santa Barbara Basin Climate Change	Mar 09; Miami	3		PAC	In Holding Box
637-Full2	New England Hydrogeology	Mar 09; Miami	4		ATI.	In Holding Box
552-Full3	Bengal Fan	Mar 09; Miami	5	1	IND	In Holding Box
716-Full2	Hawaiian Drowned Reefs	Mar 09; Miami	6		PAC	In Holding Box
549-Full6	Northern Arabian Sea Monsoon	Mar 09; Miami	7		IND	In Holding Box
618-Full3	East Asia Margin	Mar 09; Miami	10		PAC	In Holding Box

Table of OTF programs

From these proposals, the following <u>Tier 1 proposals</u> (highest priority proposal for an ocean basin; important to complete by 2013; reside at OTF for two or three years; ready for drilling)were identified:

Tier 1 proposals Pacific:

505-Full5 Mariana Convergent Margin

537B-Full4 Costa Rica Seismogenesis Project Phase B

545-Full3 Juan de Fuca Flank Hydrogeology

601-Full3 Okinawa Trough Deep Biosphere

636-Full3 Louisville Seamounts

662-Full3 South Pacific Gyre Microbiology

Tier 1 proposals Atlantic:

644-Full2 Mediterranean Outflow

677-Full Mid-Atlantic Ridge Microbiology

Tier 1 proposals Indian Ocean:

552-Full3 Bengal Fan

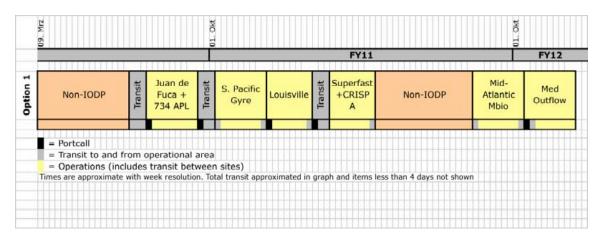
724-Full Gulf of Aden Faunal Evolution

Four of them are included in the drilling schedule for FY10/11.

JOIDES Resolution

<u>SPC approves the following JOIDES Resolution schedule for late FY 2010 and FY2011:</u>

- 545-Full3 Juan de Fuca Flank Hydrogeology (Tier 1) (Subseafloor observatory installation; relationship between fluid circulation, alteration, and microbiology in active hydrothermal system)
- 662-Full3 South Pacific Gyre Microbiology (Tier 1) (Document habitats, activities, composition and biomass of microbial communities in sub-seafloor sediment with very low total activity and very low biomass)
- 636-Full3 Louisville Seamounts (Tier 1) (Examine possible motion of the Louisville hotspot and its geodynamical implications, and the eruptive cycle and geochemical evolution of this seamount trail)
- 522-Full5 Superfast Spreading and 537A-Full5 CRISP A (Superfast: Drilling gabbro in intact ocean crust formed at a Superfast spreading rate, deepen 1256D; CRISP_A: Sampling and quantify input to seismogenic zone and fluid output; installation of long-term monitoring laboratories)
- 677-Full3 Mid-Atlantic Microbiology (Tier 1) (Microbiology of a sediment pond and the underlying young, cold, hydrologically active ridge flank with low heat flow)
- The scheduling of the Mediterranean Outflow expedition (644-Full2) is tentatively set to early FY12 but needs to be confirmed later.



JOIDES Resolution schedule for late FY2010 and FY2011.

Superfast and CRISP A

- **SPC Motion 0908-14:** Of the two options presented for prioritizing the Superfast Spreading Crust (Proposal 552-Full5) + Costa Rica Seismogenesis Project (CRISP) Phase A (Proposal 537A-Full5) slot in the FY2011 JOIDES Resolution schedule (see below), the SPC prefers option 2.
- (1) Deep objective of Superfast is the prime objective; if the existing hole is not suitable, CRISP A will be the contingency.
- (2) Superfast and CRISP A are both objectives. If conditions at Superfast warrant, a decision tree will decide whether an increased proportion of time would be spent at Superfast, or a decreased proportion of time.
- **SPC Consensus 0908-16:** The decision tree for the Superfast Spreading Crust (Proposal 552-Full5) + Costa Rica Seismogenesis Project (CRISP) Phase A (Proposal 537A-Full5) slot in the FY2011 JOIDES Resolution schedule would involve several steps, guided by the following basic premises:
- (1) Superfast would be implemented first, with the only objective being the deep hole:
- (2) CRISP A would have a guaranteed operational window (~50% of the operational days).

If hole conditions at Superfast preclude significant advancement of objectives, operations will cease at Superfast and begin immediately at CRISP A objectives.

If site conditions are adequate and Superfast can commence, operations will continue at Superfast, and stop without debate at a time such that $\sim 50\%$ of the operational days can occur at CRISP A.

C. Mével mentioned that it will not be possible to do many holes in one month. N. Banerjee explained, that he, as proponent, wrote a proposal for one expedition, not for a part of an expedition. R. Stein wondered how it would be possible to arrange several proposals in one expedition. N. Banerjee commented on that, that it is better to put expeditions together than funding only one. R. Stein summarized that this exchange is a decision case by case. The combining of two expeditions needs possibility to change scientist by helicopter if no devices need to be changed. N. Banerjee wondered what happens if a proposal has five sites and another proposal will be included, and only three sites will be done. R. Stein commented, that there was no general decision about that in SPC, but SPC proposed asking proponents for a prioritisation of sites and information whether the scientific objectives can be reached with a reduced number of sites.

Nomination of co-chiefs (see also 4.1.2)

IOIDES Resolution co-chiefs

- Juan de Fuca: Earl Davis/Canada
- South Pacific Gyre: Kay-Uwe Hinrichs/Bremen, John Parkes/Cardiff, Bo Barker-Joergensen/Bremen
 - Louisville: Toni Watts/Oxford
- Superfast: John McLennon/Cambridge, George Ceuleneer/Toulouse, Rolf Petersen/Bergen, Damon Teagle/Southhampton, Rosalind Coggan/London
 - CRISP_A: Martin Meschede/Greifswald
 - Mid-Atlantic Microbiology: Olivier Rouxel/Brest, Wolfgang Bach/Bremen

Co-chiefs for all expeditions are not nominated yet.

R. Stein informed the delegates, that shipboard scientific needs on Juan de Fuca will not require a full scientific party. There could be place for teachers, young researchers, engineers, science communicators etc. These persons will be considered belonging to ECORD. R. James argued to think about this quite carefully, because of the consequences for the quota.

Call for applications:

- 1 Nov 2009: IODP MI Issues call for Applications, publish in EOS
- 15 Jan 2010: Deadline to submit applications to PMO
- 15 Feb 2010: PMOs forward nominations to USIO for JUAN DE FUCA
- 1 Mar 2010: PMOs forward nominations to USIO for SOUTH PACIFIC GYRE
- 15 Mar 2010: PMOs forward nominations to USIO for LOUISVILLE SEAMOUNTS.

Chikyu

NanTroSEIZE

R. Stein pointed on NanTroSEIZE as most important topic for IODP and elucidates the priorities of different stages and discussed the CHIKYU Operational Plan and Contingencies:

SPC approves the following operational plan and contingencies for CHIKYU:

- Case 1 involving riser drilling NT3-01 and non-riser observatory components NT2-01 and NT3-01RL, is the top priority.
- Case 2 that does not include the observatory Components NT2-01 and NT3-01RL, is the next priority.
- If the Kuroshio is determined to be too strong for riser drilling, Case 3 which includes non-riser drilling at NanTroSEIZE and Okinawa, is the third priority
- If extreme Kuroshio currents prohibit Case 3, Case 4a, which includes Okinawa, and Case 4b, which includes Mariana, are to be considered. More information needs to be provided by CDEX to determine the priority ranking between options 4a and 4b.

Month		10	1				2			3 4			5			5	, I			
Week	1	2	3	4	1	2	3	4	1	2 3 4 1 2 3			4	1	2	3	4			
Case 1		NT2-01 NT3-01 Riser						NT3-01RL Observatory												
Case 1		Obser	vator	y		36" Conductor + 20" + 16" CSG, TD=2100mbs					LWD=1000m, CSG, Observatory									
Case 2									1	VT3-0	1 Rise	r								
Case 2			36"	Condu	enductor + 20" + 16" + 13-3/8" CSG, TD=3300mbs (depend on coring, wireline, etc.)															
C2		NT.	2-01		N	NT3-01RL Observato		ory	NT3-01 Riser Top Hole			NT3-01 Riser Top Hole		601 Ok		kinaw	inawa			
Case 3		Obser	vator	V			1000i serva	m, CSG itory	ì,	36" Conductor + 20" CSG			G	Port	High priority only			ites		
Case 4a		NT	2-01		N	ГЗ-01	RL Ob	servat	ory	Call	601 Okinawa (4~5we			week	eek opr * 2times)					
Case 4a		Obser	vator	y			1000i serva	m, CSG itory	i,				posed except sites/lower priority)							
Case 4b		NT	2-01		N	73-011	RL Ob	servat	огу	505 Mariana Co (Possible conflict with			onvergent Margin n Chikyu's IODP window)							
Case 40		Obser	vator	ý			1000 serva	m, CSC itory	3,	Port				Riser	less, C	SG &	SG & CORK			

CHIKYU Operational Plan and Contingencies

Nomination of co-chiefs (see also 4.1.2)

Chikyu co-chiefs

- NT2-01 Obs, NT3-01RL Obs: Achim Kopf/Bremen
- NT3-01 Riser ????
- Okinawa: Barry Cragg/Cardiff, Daniel Prieur/Brest, Joel Querellou/Brest

Long-range planning of expeditions

- IODP-MI BoG request -
- "Ask SASEC to come up with a 3 year plan (FY11 to FY13) for the rest of the program with SPC to work out the details. The Board requests this by June 2010."

Implications:

Proposals forwarded to SPC by next SSEP in all likeliness last chance to be considered for scheduling - By spring 2010, SPC must provide guidance to OTF on IODP 'golden spikes'

- OTF must determine (with SPC blessing) tentative schedule for FY12-13 including viable and most efficient ship(s) track, and report this to SASEC
 - Funding requirements be communicated ASAP to LAs and EMA

ISP Initiatives that have at least been initially addressed (Deep Biosphere; Gas Hydrates; Extreme Climates; Rapid Climate Change; Large Igneous Provinces (in 2009); 21st Century Mohole; Seismogenic Zone; still missing: Continental Breakup and Sedimentary Basin Formation)

"Flexible Expedition Implementation" Working Group report

IODP-MI should contact proponents of proposals currently residing at the SPC and OTF and ask for addendum with information related to their proposal on:

- scientific objectives (ranking of objectives if multiple scientific objectives)
- sites involved; age/depth ranges of sites involved; drilling time estimates; priority of sites in achieving the objectives.

For proposals in the system but not yet at the SPC, and for proposals new to the system, the working group suggested that the above information should be solicited by IODP-MI and submitted before the SPC receives the proposal for ranking.

SPC Consensus 0908-12: The SPC commends the efforts of the "Flexible Expedition Implementation" Working Group (Filippelli, Ohkouchi, Peterson) to explore schemes at the proposal level and SPC level that would ensure achievement of top science objectives while allowing maximum implementation flexibility.

The SPC endorses the guidelines outlined in the working group report and acknowledges the need to be more pro-active in maximizing scientific outcomes for the program while retaining the primary objectives of proposals. The SPC will consider evaluating, on a case by case basis, possibilities for combining expedition objectives and/or staffing and crew, and/or for implementing flexibility in the length of expeditions.

To aid in future scheduling considerations, the SPC asks IODP-MI to contact proponents of proposals currently residing at SPC and at OTF (but not scheduled) to prioritize their scientific objectives in light of potentially reduced implementation and operational times.

The **engineering report** at the SPC meeting was given by Greg Meyer, covering:

- <u>FY09-11</u>, presenting active projects (Long Term Borehole Monitoring System, Sinmple HLD and development sys., Motion Decoupled Hyd. Deliv. Sys. In-house studies), the preparing for implementation (Simple Observatory Initiative, Motion Decoupled Hydr. Deliv. Sys., Multi-sensor Magnetometer Tool) and the planning phase (Simple Observatory Initiative, Multi-sensor Magnetometer Tool).
 - Engineering Testing Time on IODP Platforms

Possibly four requests for ship time, all of which will be less three days each.

(eg. USIO logging while coring (LWC) system testing; Wireline heave compensation testing and calibration; SCIMPI tool "dummy" deployment; Motion Decoupled Hydraulic Delivery System (MDHDS))

- Riserless Mud Recovery update

IODP-MI has concluded a ~\$600,000 project funded by the DeepStar consortium to conduct feasibility studies for a sea trial of emerging riserless mud control technology.

The project identified the requirements for deploying AGR Drilling Services' Riserless Mud Recovery system at ultra-deepwater (between 1,500m and 3,650m) sites in the Gulf of Mexico aboard a 3rd generation drillship such as the JOIDES Resolution or CHIKYU.

Sea trials would need to be partially funded outside of IODP, may be targeted for early to mid FY2011 at locations in the Gulf of Mexico.

This enabling technology benefits the IODP science community by providing environmentally friendly drilling access to areas previously not drillable by IODP, this includes deep crustal and overpressured sites. This technology is directly applicable to CHIKYU, JOIDES Resolution and MSPs.

SPC Consensus 0908-07: The SPC accepts STP Recommendation 0908-09 on routine microbiological sampling on IODP expeditions, with the understanding that primary expedition objectives receive top priority.

Changes in panel memberships

SPC Consensus 0908-05: The SPC appoints Hendrik Brinkhuis as co-chair of the Science Steering and Evaluation Panel (SSEP), effective immediately.

SPC Consensus 0908-19: The SPC nominates Junzo Kasahara, Gretchen Frueh-Green and (after her expected appointment to the SPC on 1 October 2009) Barbara John as new members of the IODP-MI Operations Task Force (OTF).

Further information is given in the Minutes of that meeting: http://www.iodp.org/index.php?option=com_docman&task=doc_download&gid=2860

2.5. Outreach Task Force

A. Stevenson reported about the Outreach Task Force:

- Nancy Light left IODP in August 2009
- Task Force met in Bremen, before INVEST Conference (22nd September)
- Attended by Kyoshi Suyahiro, Hans-Christian Larsen etc.
- Jamus Collier (Director of Data and Communications) now responsible for Outreach
- IODP-MI advertised for Manager of Outreach and Communications to be based in Tokyo office starting January 2010

Most discussions at the last meeting handled about the redesign of the website and the transition to Japan.

3. ECORD News

3.1 EMA - ECORD Council meeting

- C. Mével presented a report about the ECORD Council meeting, 9-10 June 2009 in Lisbon.
 - Current chair: Nigel Wardell (Italy) 1/10/2009-31/3/2010
 - Vice chairs: Fernando Barriga (Portugal) and Guido Lüniger (Germany)

COUNTRY	MEMBERS	EMAIL
Austria	Reinhard Belocky	belocky@fwf.ac.at
Belgium	Jean-Pierre Henriet	jeanpierre.henriet@ugent.be
Canada	Anne de Vernal	devernal.anne@uqam.ca
Denmark	Heidi Eberling/ Marit-Solveig Seidenkrantz	heel@fi.dk mss@geo.au.dk
Finland	Kati Lüthje	kati.luthje@aka.fi
France	Mireille Perrin	mireille.perrin@cnrs-dir.fr
Germany	Guido Lüniger	Guido.Lueniger@dfg.de
Iceland	interim	hallgrimur@rannis.is
Italy	Nigel Wardell	nwardell@ogs.trieste.it
Ireland	Koen Verbruggen	Koen.Verbruggen@gsi.ie
Netherlands	Josef Stuefer	j.stuefer@nwo.nl
Norway	Øyvind Pettersen	op@rcn.no
Portugal	Fernando Barriga	f.barriga@fc.ul.pt
Spain	José Ramon Sanchéz Quintana	jose.sanchezq@micinn.es
	Dan Holtstam/	dan.holtstam@vr.se
Sweden	Magnus Friberg	magnus.friberg@vr.se
Switzerland	Martina Kern-Lütschg	mkern@snf.ch
	Mike Webb/	mweb@nerc.ac.uk
UK	Sasha Leigh	snbl@nerc.ac.uk
EMA	Catherine Mével	mevel@ipgp.jusssieu.fr

ECORD Council members. Marked in red are new members.

<u>Future MSP expedition</u>

- ECORD statement: "One expedition per year till the end of IODP" (2011,12,13)
- With ESO and the ECORD executive, after looking at rough estimates of the costs provided by ESO, we have decided that this position is not realistic.
 - ECORD now aims at 2 expeditions
 - Even with this reduced number, not enough POCs
- \rightarrow Letter to the LAs (cc IODP-MI) requesting a change in the POC/SOC ratio, to implement two expeditions (FY11 and FY13)

FSF

- Contact with the new director for scientific strategy, Marc Heppener offered ECORD to organize a forward look on the future of ocean drilling in Europe
 - Offer declined by the ECORD council: overlap with INVEST and IWG+
 - Contact maintained
 - Lobbying at Brussels

ESF-run programmes:

- EUROMARC
- Magellan workshop series

both end in 2010

Should we continue?

What is the opinion of ESSAC?

- → Agenda item for the next ECORD council meeting
- R. Stein highlighted the success of the Magellan Workshop series and EUROMARC. Several proposals submitted to IODP were direct outcomes of Magellan Workshops.

EUROMARC was/is important for getting funding for site survey and post-cruise science. Both programs should continue post 2010.

Proposal by Jean-Pierre Henriet:

- The Eurocean conference will be held in Belgium in 2010
- There will be a special session on "Education and marine sciences"

The Italian problem

- Italy is way over quotas (+5)
- Contributes much less that initially planned
- At the last ECORD council meeting, decision to stop nominating Italian scientists to participate in IODP expeditions as long as the situation is not solved

- Co-chief nomination issue

Should the co-chiefs be treated differently?

Problem with the CRISP A P.I., Italian

- Discussion among the ECORD executive - no consensus

Will be discussed at the ECORD Council meeting

(OK with the US IO)

- F. Abarantes points on the support of participation of proponents, otherwise the interest of writing proposal will shrink. N. Koc argued, that the co-chief is the most visible position, and the stop of nomination of Italian scientists will be the only way to show Italy, that they have to pay more money. G. Camoin confirmed the possibility of participation of a co-chief from a non-ECORD country, i.e. a country that pays nothing.
 - Nomination of Mai-Linh Doan as ECORD rep to EDP approved by E-mail

Future of ocean drilling

- ECORD is involved in IWG+
- ECORD member countries already stated that they want to continue as a consortium; decision on the new program will be made at the national level
- ECORD has stated that they want to continue operating MSPs; at least one expedition per year
- ECORD is willing to be open to other funding sources; likely on a project basis, need for some strategic approach
- Next ECORD council meeting: the timeline for ECORD renewal will be discussed: new MoU, new bids?

Relations with the EC

- The DS3F (Deep Sea and Sub Seafloor Frontier) project lead by Achim Kopf is funded
 - ~1 M€ over 2.5 years
 - Important to increase our visibility with respect to the EC
 - However, money only to support workshops and develop a road map
 - Essential that the drilling community is involved
 - → Should help promoting the DSF concept for more substantial funding under FP8...

Aurora Borealis

- EC-funded ERICON project is making progress
- Preparatory phase for Aurora Borealis
- The decision to fund the ship is not yet made: ~800 M€
- Running costs estimated at ~35 M€ per year
- ERICON has started discussing models for scheduling the ship

- Relationships with ECORD/IODP? Utilization of the AB for drilling, \sim 2-3 months per year?
- If the ship is build the ECORD Council has expressed its goal to use it as an MSP, the Arctic will be a key topic in the new science plan; this is also what ERICON expects...How can this work?
 - Number of issues to solve
- F. Abarantes wondered why Aurora Borealis is handeled in a different way than other platforms. C. Mével explained the problem of a ship being built by a consortium, so it depends on who will pay. R. Stein suggested treating Aurora Borealis like a MSP (depending on relevant proposals in the system and funding situation).

Decision making process:

- Proposal evaluation: by AB, NDP (New Drilling program), ECORD, or joint?
- Scheduling: by AB, NDP, ECORD, or joint?

Funding

- by AB or ECORD or joint?
- Should ECORD commit to use the ship every year?

Staffing

- AB partners, IODP partners, ???

Data management and ownership

- Publications, core curation, databases?
- Ex: Who owns the cores?
- IODP policy, likely to continue post 2013: geographical distribution of core
- → Discussion on these issues will start at the council meeting in Rome

Next ECORD Council Meeting will be in Rome, 25-26 November

On behalf of the ECORD Council, C. Mével thanked again the CEREGE ESSAC Office, G. Camoin and B. Wolff-Boenisch

3.2 **ESO**

A. Stevenson reported about ESO.

New Jersey Shallow Shelf Expedition

- The L/B Kayd left Louisiana in early April
- Arrived Atlantic City 22nd April ahead of schedule
- Left Atlantic City on 30th April
- Operations completed 17th July
- Onshore Science Party at Bremen starting 6th November

NISS outreach

- Media Conference in Trump Marina Hotel at Atlantic City
- Several media outlets present (NBC, NJN)
- IODP film crew took 6 hours of film on board Kayd for promotional DVDs/YouTube etc.
 - Daily log on ESO website
 - Expedition leaflet
 - Media visit to the Kayd (Philadelphia Inquirer, Washington Post (Slate V))

NJSS objectives

- Core and log three sites
- Maximum depth 750 mbsf
- Drilling, as expected, proved to be very challenging

NISS results

- Hole MAT-1A ended at 631 MBSF (Reached ~20m above Priabonian; Crossed Eocene/Oligocene boundary; ?Chesapeake Bay meteorite impact tektonite)
 - Logged complete Total Gamma-Ray (Magnetic Susceptibility and Resistivity from 430-631m (results 'very good'))
- Hole MAT 2 TD'd at 674 mbsf (Bottomed in lowermost Miocene sequence m6; Gamma logs and VSP at high-resolution were run through-pipe for the entire borehole; Open hole logging and VSP data were obtained from the lower part of the borehole)
- MAT 3 cored to 756.65 m (Recovered key Miocene packages; Passed through basal Miocene (m5.8); Very good through-pipe gamma ray logging for entire borehole; Openhole resistivity, sonic and gamma ray logging from 481 m to TD very promising data; Acoustic televiewer run from 484 m to TD; Through-pipe VSP in lower and upper 220 m)

Great Barrier Reef Environmental Changes Expedition

- Contract signed on 11th May.
- Platform provider is 'Bluestone' based in Singapore.
- The vessel Greatship Maya will be mobilised in Singapore in late early November 2009
- ESO and Science Party join at final mobilisation in Townsville in January 7th-10th 2010.
 - Circa 45 day expedition until late February.
 - Demobilise in Townsville.
 - Science party almost complete
 - Onshore Science Party will be held in July 2010
- A. Stevenson pointed out that even if the expedition will be postponed, the science party will not be affected.

3.3 ESO-EMA-ESSAC Meeting

P. Maruéjol reported about the ECORD Outreach Meeting, which was held from August 5-6, 2009 in Aix en Provence.

Activities from April to October 2009

- Providing ECORD/IODP information at science conferences
- New/updated ECORD publications
- Reviewing outreach resources (core replicas, posters...)
- Coordinating ECORD web sites

ECORD/IODP Information at Science Conferences

- EGU 2009, Vienna, April 19-24, 2009
- AGU-GAC, Toronto, May 24-27, 2009, organised by IODP Canada
- GeoItalia, Rimini, September 9-11, organised by IODP Italia
- ASF 2009, Rennes, October 26-28, organised by EMA-IODP France
- → http://www.ecord.org/pi/booths.html
- JPGU 2009 in Tokyo and AOGS 2009 in Singapore by CDEX
- INVEST in Bremen: ECORD Outreach White Paper and poster
- GSA in Portland by USIO
- AGU 2009, San Francisco, December 14-18, organised by IODP-MI
- EGU 2010, Vienna, May 2-7 with a joint ICDP-IODP booth

ECORD Outreach - Publications

- ECORD flyer with contact updated
- ANSWERS

- MSP flver
- NJSS flyer (English and French versions)
- Newsletter #13 November 2009
- ECORD Calendar 2010
- Pocket folder GBREC / EGU 2010
- GBREC flyer January 2010
- R. Stein wondered about online information. C. Mével confirmed the good promotion of expeditions and IODP in general. IODP-Mi should be responsible for IODP, and ECORD for MSPs.

N. Koc asked about any outreach focused on politicans (like NASA) or societal importance. C. Mével pointed on the importance of the national level to provide information. C. Mèvel emphasised the role of the national delegate who has to be active with the own government. ECORD is not responsible for this. A. Stevenson underlined this with an example of costs for placing an article for the international climate conference, out of reach for IODP. N. Koc suggested somebody to organize activities. F. Abarantes agreed and pointed on the need to generate pressure on EU. N. Koc wants simple information like a one page brochure with bullet points. J. Erbacher pointed out that this is the job of the national departments. N. Banerjee pointed on a need for on place on web where all that kind of information is placed. A. Korja pointed on the need of one slide giving the main points what ECORD/IODP stands for.

ECORD Outreach - Resources

Available on-line at http://www.ecord.org/pi/promo.html

- Maps and logos (ECORD, IODP, ICDP)
- Photo galleries of MSP Expeditions (NJSS Expedition)

Upon request:

- 5 core replicas available for loan + informative posters
- Posters for booths, brochures

Coming soon:

- PPT/PDF Presentations of - IODP/ECORD in general - IODP expeditions

ECORD Outreach - Web Sites

- New design of the ESO web site
- Coordinated ECORD RSS feeds:
 - At-a-glance http://www.ecordRSS/ecord-rss.php
- <code>'ECORD News'</code> <code>ECORD/IODP</code> community, publications, conferences, press releases, outreach
 - 'ESO News' Information, outreach related to MSP expeditions
 - 'ESSAC News' Scientific participation, workshops, summer schools, DLP...
 - Core Replicas http://www.ecord.org/pi/core-replicas.html

Next meeting

February 4-5, 2010 in Edinburgh, Scotland

P. Maruéjol announced the IODP Borehole website. It provides access to drilling sites of expeditions, drilling proposals, and site survey data: http://campanian.iodp-mi-sapporo.org/google/data/iodp.kml.

3.4 ESSAC representatives and National Office reports

R. Stein pointed to the poor attendance to the ESSAC #13 meeting. He explained as introduction, that even if neither the delegate nor the alternate have the possibility to attend an ESSAC meeting, a third person is welcome as well.

- R. Stein mentioned, that the nomination of the new ESSAC vice-chair has to be nominated during the next meeting. After nomination via ESSAC, the ECORD Council has to confirm this.
- R. Stein explained, that there is need for a person from a "small" country. During the last ESSAC meeting in Sesimbra, C. Escutia was discussed as possible vice-chair. Here, the problem will be, that she has to be delegate at the May meeting. Therefore, R. Stein already contacted M. Comas (ESSAC Spain) and asked for input. M. Comas has not responded yet. C. Mével offered herself to contact M. Comas as well as the spanish ECORD Council member. R. James underlined the importance of decision of the nomination, since the last two years of IODP are an important time.
- R. Stein announced, that E. Erba is the new coordinator of the Workshops, communication and vision subcommittee.

ESSAC delegates reported about their activities in their countries.

- K. Strand reported about a PhD student who is working on ACEX material, and a Finnish person who will join the science party of New Jersey Shallow Shelve Expedition. There is a sample request for Wilkes Land Expedition material.
- I. Snowball explained, that most Swedish IODP-related research is concentrated in Stockholm. Lots of proposals are in the system. J. Backman joined a cruise; also on New Jersey Shallow Shlef a student will take part. Sweden spends lots of work on the Baltic proposal. EU-projects, magazines and British publishers have contacted Sweden.
- A. Foubert reported about Belgian contributions, like a Moroccan margin proposal, INVEST participants, funding questions 2011. She also announced a European research network proposal that was just submitted together with Switzerland.
- F. Abarantes announced, that besides work on IODP/ODP material, Portugal sent one high-school teacher to participate on JOIDES Resolution A Magellan Workshop will take place in Lisbon on November 09-10, 2009.
- J. Erbacher explained again, that ICDP and IODP in Germany are really close. Germany established an exchange program with $40000 \cite{Colorente}/\cite{Colore$
- N. Koc announced a new person at the Norwegian research council. Norway had two participants at cruises, but still they are under quota with missing five places. An ACEX postdoc published a Nature paper, new proposals are coming up, one for Barents Sea, where Norway is optimistic to get funding by oil industry, so now Norway is looking for complementary money. A need of 4 million \in can be split into 2 million \in from oil industry, 1 million \in from ICDP/IODP and 1 million \in from local funding agencies.
- X. Monteys engaged Irish researchers to apply for sailing. Ireland had one participant at Urbino Summer School, and one finished PhD thesis on Leg 307.
- G. Bartoli, as alternate for J. McKenzie and H. Weissert summarized about four IODP participants on cruises, four participants at INVEST and three Swiss SAS panel members.
- N. Banerjee reported about a submitted proposal to continue the funding post 2009 $(600k \in /y)$, the ECORD funded Canadian summer school, the newly designed website and an IODP Canada booth at a joint meeting in Toronto.
- R. James pointed out changes in UKIODP: the science coordinator Heather Stewart is on maternity leave, but her work will now be done by Dayton Dove who, like Heather, is a staff scientist at BGS in Edinburgh. The new chair of IODP UK is Professor Bill Wakeham.
- G. Camoin announced changes in IODP France. There will be a new science coordinator, replacing B. Ildefonse. The national office will rotate to Montpellier in one year. S. Berné (also SSEP member) is the new French alternate and will be new delegate

after October 2010. 44 French researchers attended INVEST, a Magellan workshop about Pliocene climate took place in Bordeaux, one teacher was sailing for School of Rocks, one proposal (lesser Antilles) was ranked with four stars.

4. Nominations an Staffing

4.1.1 Updates in expedition staffing

G. Camoin gave a report about updates on expedition staffing of following expeditions: - New Jersey Shallow Shelf- Canterbury Basin - Wilkes Land - NanTroSEIZE 1B, #319 and 322- Shatsky Rise.

#313 - New Jersey Shallow Shelf

12 ECORD participants: France: 4 (J-N. Proust, M. Rabineau, M. Bassetti, C. Basile), Germany: 2 (U. Kotthof, S. Stadler), United Kingdom: 2 (S. Hesselbo, D. Hodgson), Canada: 1 (F. McCarthy), Denmark: 1 (C. Bjerrum), Finland: 1 (H. Valppu), SWE: 1 (A. Nielsson).

Declined invitation: G. Dupont-Nivet (NL).

#317 - Canterbury Basin

7 ECORD participants – Germany (D. Hepp, J. Lipp): 2, United Kingdom: 2 (D. Kemp, H. Lever), France: 1 (Ciobanu, M-C), Ialy: 2 (J. Dinares-Turell, L. Pea).

Declined invitations: F. Paquet (F), M. Urbat (D), P. Haughton (IRE), V. Lüer (D), K. Alain (F), H. Jacot Des Combes (F).

#318 - Wilkes Land Margin

10 ECORD participants - Germany: 2 (U. Roehl, J. Pross) United Kingdom: 3 (S. Bohaty, J. Bendle, T. van de Flierdt), Spain: 2 (C. Escutia, JJ. Gonzalez), The Netherlands: 2 (H. Brinkhuis, P. Bijl), Norway: 1 (C. Stickley).

Declined invitations: D. Denis (F).

#319 - NanTroSEIZE Stage 2: Riser/Riserless Observatory 1

8 ECORD participants - France: 3 (C. Buret, M-L. Doan, M. Conin), Germany: 2 (T. Wiersberg, A. Kopf), United Kingdom: 1 (L. McNeill), Switzerland: 2 (N. Efimenko, D. Buchs).

322 - NanTroSEIZE Stage 2: Subduction Input

8 ECORD participants - Germany: 3 (S. Kutterolf, Y. Kitamura, V. Heuer), United Kingdom: 3 (K. Pickering, S. Kender , J. Tudge), France: 2 (C. Destrigneville, S. Labanieh)

#323 - Great Barrier Reef

(for the discussion G. Camoin left the room due to conflict of interest)

Because the GBR Expedition has been postponed, two french participants (G. Camoin and P. Gouze) had to withdraw their participation. R. Stein mentioned that ESO is looking for candidates with expertise of sedimentology and Physical properties.

After discussion, the panel agreed replacing G. Camoin and P. Gouze by R. Bourillot and D. Loggia because (1) these candidates have the expertise needed, (2) are highly qualified and (3) are both from France (considering the negative quota). Because there is a very late replacement and G. Camoin is the GBR key proponent, it has been accepted that R. Bourillot, postdoc in G. Camoin 's group, is replacing G. Camoin.

ESSAC Consensus 0911-03: ESSAC approves the "late replacement" of two scientists for the Great Barrier Reef Expedition on the basis of expertise and nationality. Raphael Bourillot will replace Gilbert Camoin, and Didier Loggia will replace Philippe Gouze.

#324 - Shatsky Rise

8 ECORD participants - Germany: 2 (K. Heydolph, R. Almeev), United Kingdom: 3 (M. Widdowson, K. Litter, J. Prytulak) France: 2 (C. Carvallo, A. Delacour), Switzerland: 1 (S. Herrmann)

Quotas

G. Camoin presented the new berth quotas. These include a total ECORD berths of 207 (incl. 1 relinquished berth from J-DESC) / 25 expeditions. \rightarrow 8.28 berths/expedition

Total berths so far	Member	NEW Financial Contribn	NEW Entitlement	ALLOC		
44	France	25,2%	52,2	-8,2		
56	Germany	26,0%	53,9	2,1		
48	UK	25,2%	52,2	2,1 -4,2		
148	Sum	76,5%	158,3	-10,3		
0	Austria	0,5%	1,1	-1,1		
1	Belgium	0,2%	0,3	0,7		
6	Canada	1,3%	2,7	3,3		
4	Denmark	2,6%	5,4	-1,4		
2	Finland	0,4%	0,9	1,1		
0	Iceland	0,2%	0,3	-0,3		
0	Ireland	0,7%	1,5	-1,5		
8	Italy	1,4%	2,8	5,2		
6	The Netherlands	1,8%	3,8	2,2		
6	Norway	5,0%	10,3	-4,3		
2	Portugal	0,6%	1,2	0,8		
9	Spain	2,6%	5,5	3,5		
7	Sweden	3,6%	7,6	-0,6		
8	Switzerland	2,5%	5,2	2,8		
59	Sum	23,5%	48,7	10,3		
207	Total ECORD		207	0,0		

A discussion of the "Quota problem" followed in the breakout session. It is obviuos that several countries are currently unter quota (e.g. France, Ireland, Norway, UK), others are over quota (e.g. Canada, Italy, Spain). G. Camoin mentioned potential solutions of the problem:

- late replacement. In this case, replacements by scientists with the same expertise and from the same country should be possible, even if they did not apply earlier.
- from some countries with under quota the number of applications is low. Here, there is a need for significant effort from these countries.
- "extra berth" (e.g. for teachers and engineers)

N. Banerjee mentioned that the over quota of Italy is mainly a result of late replacements for Expeditions 309 where three Italian scientists were invited because no other ECORD candidates with the expertise needed, were available. R. Stein commented that in such a case these candidates may be counted as "ECORD" (and

not Italian), or at least this is an argument to explain at the very end why Italy is over quota.

4.1.2 Nomination of co-chiefs

G. Camoin showed updated lists of nominations of co-chiefs.

JOIDES Resolution expeditions

Juan de Fuca: no nomination. E. Davis (Canada) has declined his nomination.

South Pacific Gyre: Kai-Uwe Hinrichs (Germany). *John Parkes (UK) and Bo Barker-Joergensen (Germany) have declined their nominations.*

Louisville: Toni Watts (UK).

Superfast: John McLennan (UK), George Ceuleneer (France), Rolf Pedersen (Norway), Damon Teagle (UK), Rosalind Coggon (UK), Benoit Ildefonse (France).

CRISP-A: Martin Meschede (Germany), Serge Lallemand (France).

Mid-Atlantic Microbiology: Wolfgang Bach (Germany). *Olivier Rouxel (France) has declined his nomination.*

Chikyu expeditions

NT2-01 Obs, NT3-01RL Obs: Achim Kopf (Germany)

NT3-01 Riser: Pierre Henry (France)

Okinawa: Olivier Rouxel (France) has declined his nomination.

4.1.3 Further ESSAC items related to Expeditions

ESSAC Action Item 0911-09: ESSAC Office will send out Calls for Applications to Sail on the three upcoming cruises: Juan de Fuca Flank Hydrogeology, South Pacific Gyre Microbiology, Louisville Seamount Chain with deadline January 15, 2010.

ESSAC Action Item 0911-10: ESSAC Office will send out a Call for engineers/teachers for the Juan de Fuca Expedition with deadline January 15, 2010.

ESSAC Action Item 0911-11: ESSAC Office will contact the national offices/delegates to ask them to send statistics regarding the scientists involved in each expedition (in addition to the Science Party members) and statistics including the published IODP-related papers of all their scientists.

4.2 SAS panel nominations

G. Camoin presented an overview about SAS panel nominations.

Science Advisory Structure Executive Committee (SASEC)

Gerold Wefer (Germany) will be replaced by Jan W. De Leuw (The Netherlands) startig January 10. Nicholas Arndt (France) will rotate off after January 2010 and need to be replaced by a person from UK.

ESSAC Action Item 0911-01: ESSAC (R. James) will contact her national office concerning replacement of Science Advisory Structure Executive Committee (SASEC) member Nick Arndt.

J. Erbacher explained, that members usually stay for 2 years. Exeption G. Wefer, because he was kept on board for INVEST.

Science Planning Committee (SPC)

Jan Behrmann (Germany) will be replaced by Rüdiger Stein (Germany) starting March 10. Gilbert Camoin (France) and Hugh Jenkyns (UK) will rotate off after August 2010. A call for applications will be widely distributed and posted on ESSAC website. The

applications will then be reviewed by the N&S ESSAC Subcommittee, who will recommend nominations.

ESSAC Action Item 0911-04: ESSAC Office will send out a Call for Nominations for the Science Planning Committe (SPC) of the SAS in IODP with deadline March 15, 2010.

Science Steering and Evaluation Panel (SSEP)

- G. Camoin showed an overview of the current SSEP panel member composition. Achim Kopf (Germany) (May 07 Nov 09) got an extension for two additional meetings at the co-chairs request. Heiko Palike (Co-Chair) (UK) will rotate off from SSEP after November 09 meeting. A call for applications has been issued on October 13, 2009.
- R. Stein explained the german situation of replacement of A. Kopf and K-U. Hinrichs by J. Kopeke and T. Ferdelman. ESSAC agreed on the replacements with consensus.

ESSAC Consensus 0911-04: ESSAC approves SAS Panel replacement within the Science Steering and Evaluation Panel (SSEP): Tim Ferdelman will replace Kai-Uwe Hinrichs (after May-2010-Meeting) and Juergen Koepke will replace Achim Kopf (after May-2010-Meeting).

R. James wondered who decided to put all applicants into alternate list. G. Camoin said that it was his own decision, because there is need of a large pool of alternates. C. Mével supported this, even though an evaluation is better, because these people represent ECORD. G. Camoin contered, that ESSAC knows applications of all of them. However, there is need of a quality control procedure. N. Banerjee suggested to put into the call, that applicant who will not serve as member will be able to become a representative alternate. A possiblity to handle this would be a ranking with star-system. R. James pointed on importance of national view because the choice is not easy if only based on a CV. R. Stein mentioned that the topic "how to select alternates" will be discussed in more detail during the next ESSAC Meeting.

Scientific Technology Panel (STP)

G. Camoin informed the delegates, that Georges Gorin (Switzerland) received an extension for one additional meeting, the July 2010 meeting. A Call has to be issued to replace him. The applications will then be reviewed by the N&S ESSAC Subcommittee, who will recommend nominations. Douglas Schmitt (Canada) will be the next rotation after the July 2010 meeting. He will be replaced by Nathalie Vigie (France).

ESSAC Action Item 0911-06: ESSAC Office will send out a Call for Nominations for the Scientific Technology Panel (STP) of the SAS in IODP with deadline March 15, 2010.

Site Survey Panel (SSP)

Three members were supposed to rotate off. Christoph Gaedicke (Germany) will be replaced by Gabriele Uenzemann-Neben (Germany) starting Feb 2010. Holger Lykke-Andersen (Denmark) will be replaced by Roger Urgeles (Spain) starting Feb 2010. Neil Mitchell (UK) will rotate off after Jul 10. A call for applications will be widely distributed and posted on ESSAC website. The applications will then be reviewed by the N&S ESSAC Subcommittee, who will recommend nominations.

ESSAC Action Item 0911-08: ESSAC Office will send out a Call for Nomination in the Site Survey Panel (SSP) of the SAS in IODP with deadline March 15, 2010.

Environment Protection and Safety Panel (EPSP)

G. Camoin showed current EPSP members. Philippe Lapointe (France) will rotate off. G. Camoin will again contact Christian Blanpied (TOTAL) to replace P. Lapointe.

ESSAC Action Item 0911-02: ESSAC (G. Camoin) will contact Christian Blanpied (Total) for replacing Philippe Lapointe within Environmental Protection and Safety Panel (EPSP).

Engineering Development Panel (EDP)

G. Camoin informed the delegates about the replacement of Roland Person (France) by Mai-Linh Doan, France starting in January, 2010. Next rotation would be Maria Ask (Sweden, Jul 07- Jan 10), however there are ongoing discussions wether she will become the next EDP vice-chair.

John Thorogood (UK) extended the term for two additional meetings at the EDP Chair's request until July 2010. A call for applications will be widely distributed and posted on ESSAC website. The applications will then be reviewed by the N&S ESSAC Subcommittee, who will recommend nominations.

ESSAC Action Item 0911-07: ESSAC Office will send out a Call for Nominations for the Engineering Development Panel (EDP) of the SAS in IODP with deadline March 15, 2010.

Lothar Wohlgemuth (Germany) will be the next rotation after January 2010. R. Stein suggested to the delegates, to extend the term for L. Wohlgemut in EDP Chair´s request.

ESSAC Action Item 0911-03: ESSAC Office will contact Lothar Wohlgemut and Bill Ussler (as chair) for continuation of membership of L. Wohlgemut within Engineering Development Panel (EDP).

J. Erbacher wondered if members of technical panel have to rotate off. Answer is yes, but IF the expertise is important, there is the possibility to extend membership.

ESSAC Consensus 0911-05: ESSAC approves that future Calls for SAS Panel nominations will specify the nationality that is looked for ("UK", "F", "D", "ECORD countries outside UK, F and D")

ESSAC Consensus 0911-06: ESSAC approves an additional phrase for Calls for SAS Panel nominations to encourage all "other" nationalities to apply: applicants who will not serve as a member may become an alternate within the respective SAS Panel

5. ESSAC highlight in Pacific Equatorial Age Transecct Expedition 320.

H. Pälike presented a report and outcomes of the PEAT-1 Expedition.

6. Breakout sessions

The three ESSAC subcommittees met to discuss the topics on the agenda. The results are given in the respective items.

7. Education and outreach

7.1 ECORD Summer Schools (Reports)

A report of Canadian students who participated ECORD Summer Schools is given on the website http://www.iodpcanada.ca/news_items/ecord-2009-summer-schools/.

7.1.1 Past Global Change Reconstructions and Modelling Techniques Summer School, Urbino, July 2009

H. Pälike gave a report (done by L. Lourens) about the USSP 2009 and its statistics about participants: 115 applications, 79 participants from 18 different countries. He explained about the complexity of the programme, with practical and lecture activities. The USSP 2009 offered parallel sessions, evening lectures, practical courses and student presentations. The USSP consortium also did interviews with students.

J. Erbacher circulated information of students who complained about the length of the USSP.

7.1.2 ECORD Summer School on Geodynamics of Mid-Ocean Ridges, Bremen, September 2009

C. Mével gave a report of the ECORD Summer School in Bremen 2009, the report was provided by D. Hebbeln. A total of 32 graduate students and post-docs from 9 ECORD countries and Japan participated. Lectures were focused on (1) Magmatic processes (2) Tectonic processes and geophysics (3) Hydrothermal processes. The program consisted of lectures about IODP with an exercise in proposal writing, the "virtual ship" experience, a fieldtrip and oral presentations by the participants.

7.1.3 Outlook and ECORD Summer Schools 2010

J. Lezius gave an overview about the three ECORD Summer Schools funded in 2010. The ECORD Summer School Bremen will focus on the IODP ISP Earth History, entitled "2010 ECORD Summer School on the Dynamics of Past Climate". Further information is given on the website http://www.glomar.uni-bremen.de/ECORD Summer School 2010.html.

For the Urbino Summer School there was no program presented yet. No there is further information available on the website http://www.urbinossp.it/.

The IODP Canada Summer School will focus on paleoceanography paleoclimatology at high latitudes. It will be divided into lectures and fieldwork. Program and dates were not released yet; the location will be the UAQM Montréal. Preregistration fee is 1500 CDN\$ (incl. accommodation, meals, local transportation, access ship, laboratory). Further information is given on the website to http://www.iodpcanada.ca/.

G. Camoin asked about plans of IODP Canada after 2010. N. Banerjee stated that they would like to continue since the arctic topic is quite interesting for Canada. G. Camoin suggested that there might be collaboration with France. France is launching this project. So there could be more money for students. N. Banerjee would like to try to find more money to fund canadian summer school: If canadian students do not get funded for European summer school, they will be able to attend the canadian one. G. Camoin reminded the delegates, that there would be more money spent if the costs are more expensive.

R. Stein wondered if there is no kind of "foreign academic exchange service. – But there is none. R. Stein pointed on the need for general discussion about the future summer schools (Topic for 14^{th} ESSAC Meeting in Tromso).

7.2 ECORD Grants and Scholarships

J. Lezius presented a draft version of the "Letter of support" for ECORD Scholarships and ECORD Research Grants. It will start with an introduction into the template, and then, will be divided into two parts. One part will deal with personal information about the referee. The second part gives opportunity to comment on candidate's skills, and importance of the ECORD Scholarship/Research Grant for the current work of the candidate. The template will be a download pdf-form from ESSAC

Website, has to be completed digitally or manually by the referee, has to be signed and/or stamped, and has to be sent directly by referee to the ESSAC office.

ESSAC Action Item 0911-12: ESSAC Office will send out draft versions of a letter of support for ECORD Scholarships and ECORD Research Grants to delegates/alternates.

ESSAC Action Item 0911-13: ESSAC Office will send out a Call for ECORD Scholarships and Research Grants with deadline March 29, 2010.

ESSAC Action Item 0911-14: ESSAC Office will send out a Call to host an ECORD Summer School 2011 with deadline May 5, 2010.

7.3 Distinguished Lecturer Programme 2009

J. Lezius gave an update on the current DLP with done, recent and upcoming lectures of A. Kopf, J. Parkes and P. Clift. Further information is given on the website http://www.essac.ecord.org/index.php?mod=education&page=dlp.

Complaining about many lectures outside ECORD countries, even though there had been applications of ECORD countries to host a DLP were argued against with the intent to promote ECORD outside ECORD countries. G. Camoin explained the procedure of the DLP, where a table of all applicants of institutes is sent to the lecturer, but the lecturer self decides where to go.

ESSAC Action Item 0911-15: ESSAC Office will contact current lecturers within DLP (2008/2010) to remind them that this program runs until May/June 2010. The ESSAC Office will also send them (once again) a list of all interested institutes.

ESSAC Action Item 0911-16: ESSAC Office will create a form to request feedback from institutes that have hosted DLPs.

A report about the DLP, Peter Clift and Achim Kopf is given on the website http://www.iodpcanada.ca/news_items/ecord-distinguished-lectures-march-2009/.

7.4 School of Rock

J. Lezius presented some impressions about the School of Rock 2009 based on a report of Hélder Pereira, a teacher who attended the IODP Expedition 321T. He also created a Blog (http://sor2009-pt.blogspot.com/) and an online photobook (http://www.mypublisher.com/?e=6ooStfZME0MWums-wUvag800937EIdDZ)

G. Camoin described the bad experiences of the ESSAC office with the application procedure of teachers. He pointed on the need for a standardized application form (like scholarships). Leslie Peart already promised to do this.

7.5 ECORD Publications

P. Maruéjol gave a report about ECORD publications. Available publications are 1) ECORD flyer with contacts, 2) Answers 3) MSP flyer 4) NJSS flyer. All ECORD publications are available on the website http://www.ecord.org/pub/publications.html. Planned for release is 1) ECORD Newsletter #13 2) ECORD Calendar 2010, GBREC flyer 3) ECORD Folder brochure.

P. Maruéjol presented details about the 13th issue of the ECORD Newsletter, now available on the website http://www.ecord.org/pub/nl.html. The next issue ECORD Newsletter #14 will be released on EGU 2010, the Call for distributions will be issued by mid February 2010 with an author's deadline of April 1, 2010.

A new ECORD folder brochure will replace the ESSAC, ECORD-Net and ESO brochures, with 8 leaflets describing ESO/EPC/BRC/ESSAC and 1 page/each MSP expedition. Advantage is flexible to update and provides standardised and consistent ECORD documents.

7.6 E & O Subcommittee report

The ESSAC Subcommittees E&O met to discuss the following topic:

DLP- new themes and lecturers

X. Monteys presented present and future topics of interest as possible new themes for DLP 10-11:

- 1) Solid Earth Cycles and Geodynamics
 - Ocean mantle crust interaction (e.g. serpentinization)
 - Plate aging: ridge to trench
 - Hydrothermal systems and fluid flow
- 2) Environmental Change, Processes and Effects
 - High latitude research: Arctic & Antarctic
 - Carbonate systems/coral reefs
 - Geohazards: submarine landslides / volcanic and bolide impacts
 - Gas hydrates
- 3) The Sub-seafloor Biosphere
 - Evolution of life (stromatolites)
 - Paleo-ecosystems & biodiversity
 - Co-evoltion of ocean chemistry & surface/subsurface biospheres

ESSAC Action Item 0911-17: ESSAC Office will create a Call for DLP (2010/2012) related to the three main ISP themes, with a list of possible topics. The call will be sent out with deadline March 15, 2010.

8. Workshops, communication and Vision

8.1Future of IODP: INVEST Report and discussion

G. Camoin presented a report about outcomings of the INVEST Conference, Bremen, Germany, September 22-25, 2009.

Scientific steering committee : Wolfgang Bach ECORD (cChair), Christina Ravelo US (cChair), Jan Behrmann ECORD, Gilbert Camoin ECORD, Robert Duncan US, Katrina Edwards US, Sean Gulick US, Fumio Inagaki JP, Heiko Palike EU, Ryuji Tada JP.

583 participants from 21 nations (> 100 students and early-career scientists) - 261 ECORD participants from 13 ECORD nations: Australia 7, Belgium 3, Brazil 1, Canada 6, China 25, Denmark 6, France 44, Germany 109, Italy 4, Japan 109, R. of Korea 12, Netherlands 6, New Zealand 1, Norway 10, Portugal 3, Russian Federation 1, Spain 7, Sweden 3, Switzerland 7, United Kingdom 53, United States 166.

Theme and working group sessions alternated with plenary sessions in which the theme chairs reported the results of working group discussions.

INVEST featured 12 invited keynote lectures, ranging in topic from drilling technology to climate prediction to deep Earth processes.

Young scientists, program offices, and industry were given the opportunity to present posters.

More than 100 white papers were submitted in preparation of INVEST and were discussed in the working group sessions.

The reports of the pre-INVEST meetings (J-DESC, CHART and ECORD Beyond 2013 were also discussed in the working group se

The INVEST resources are available at http://www.marum.de/iodp-invest.html.

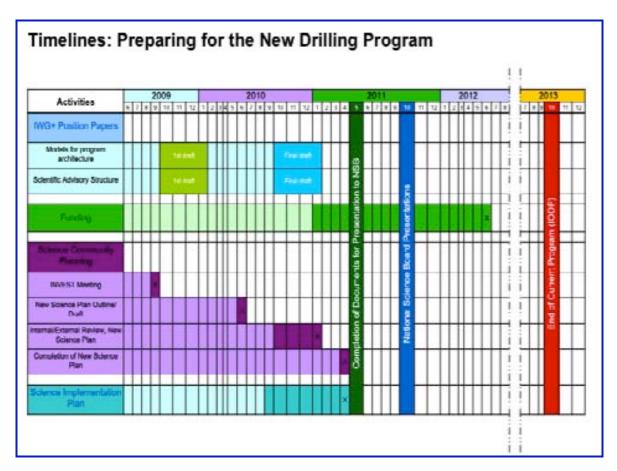
R. Stein mentioned that the white papers were important contributions and the basis for discussion in the working groups.

Timelines : preparing for the New Drilling Program

- INVEST report : " The Living Earth "
 - Draft available: 20 November, 2009
 - Report published: early 2010
 - EOS article submitted : late November, 2009
 - Scientific Drilling article submitted: early January, 2010
- **Science Plan** based on the outcome of INVEST will be written by scientific community representatives selected and announced by November 15.
 - Science Plan drafted and / internal & external reviews : 2010.
 - Science Plan and **Science Implementation Plan** completed: 2011
 - The **International Working Group** (IWG+) will develop models

for program architecture and SAS.

First draft : late 2009 Final draft : late 2010



G. Camoin summarized the content of the INVEST Report as follows (preliminary compliation):

INVEST Report draft summary

- 1. Cross-disciplinary Frontiers
- 1.1. Extreme Events
- 1.2. Environmental controls on Hominin evolution and migration
- 1.3. Climate-controlled tectonics
- 1.4. Active experimentation below the seafloor

- 2. Climate Change Impacts
- 2.1. Extreme events
- 2.2. Ice sheet stability, sea level change and shoreline retreat
- 2.3. Hydrological cycle
- 2.4. Science Strategies
- 3. The Lithospheric Membrane
- 3.1. Subthemes TBD
- 3.2. Science Strategies
- 4. Co-evolution of life and the planet
- 4.1. Subthemes TBD
- 4.2. Science Strategies
- 5. Earth-Human-Earth interactions
- 5.1. Geohazards
- 5.1.1. Earthquakes
- 5.1.2. Submarine slides
- 5.1.3. Clathrate-gas hydrate instability
- 5.2. Exploring the Future, Anticipating transition to high pCO2 world.
- 5.2.1. Climate sensitivity
- 5.2.2. Ocean acidification
- 5.2.3. Rapid Sea level change
- 5.2.4. Science Strategies
- 6. Meeting Demographics
- 7. Technological needs and development
- 8. Outreach and Education, and Branding
- 9. Recommendations for the new program
 - 9.1. Program Architecture guiding principles
 - 9.2. Lead-time and long term planning
 - 9.3. SAS guiding principles

8.2 Further Workshops

8.2.1 Scientific Ocean Drilling of Mid-Ocean Ridge and Ridge-Flank Settings

R. Stein gave a short announcement of the website of this meeting.

Further information is given on the website http://www.oceanleadership.org/2009/scientific-ocean-drilling-of-mid-ocean-ridge-and-ridge-flank-settings/.

8.2.2 Melting, Magma, Fluids & Life

R. James gave a report about the Melting, Magma, Fluids & Life workshop (InterRIDGE and IODP), held July 27-29, 2009, in Southampton, UK.

Further information is given on the website http://www.interridge.org/WG/DeepEarthSampling/workshop2009.

8.2.3 ACE Symposium workshop

R. Stein gave a short announcement of the website of this meeting.

Further information is given on the website http://psp.tamu.edu/news-1/ace-symposium-workshop.html

8.2.4 Pliocene Climate

R. Stein gave a report about the Pliocene Climate workshop, held October 23-25, 2009, in Bordeaux, France.

Further information is given on the website http://www.plioclimworkshop.com/

8.2.5 Magellan workshops

J. Erbacher gave a report about current and past Magellan workshops 2009, Summer schools and short visit grants. The current call for ESF Magellan workshop propsals is open from October 15 to December 15, 2009. The call for short visit grants is permanently open. There is no more funding of summer schools. Next and probably last SC Meeting: February, 18th to 19th, Azores, Portugal.

8.2.6 EuroFORUM 2010

R. Stein gave a report about the upcoming EuroFORUM at EGU 2010.

Further information is given on the website http://meetingorganizer.copernicus.org/EGU2010/session/2717

8.3 Workshops, communication and vision subcommittee report

- N. Koc presented the results of the discussion of the W, C & V subcommitte working session on the topic: Letter of support to IODP post-2013 from the ECORD community.
- N. Koc attested the draft of E. Erba to be a good start for the letter of support. The letter has to be sharp and precise. List of possible things that should be mentioned in the letter:
 - History of IODP
 - Past IODP achievements
 - 3-4 major highlights
 - Uniqueness of IODP
 - Relevance of these achievements to society
 - Role of ECORD for European science
- -What are the big societal challenges facing humans today and future, and how IODP & ECORD can help solve these?
- N. Koc suggested not talking about money at all in this letter. N. Banerjee pointed on the social relevance and uniqueness as most important aspects. R. James underlined the role and view of ECORD as most important in the letter.

Discussion in subcommitte, draft version: end of March 2010.

Final Version April 2010.

C. Mével emphasised that the letter of support will act as supposed for the science plan.

ESSAC Action Item 0911-18: ESSAC Office will contact the subcommittee "Workshops, Communication and Vision" to revise the draft version of the Letter of Support for Continuation of IODP with deadline end of February 2010. Final version of the Letter of Support has to be completed end of March, 2010.

9. Any Other Business

No other items were discussed.

10. Next meetings

Short presentations about possible locations for the next ESSAC Meetings were given by A. Foubert, announcing Leuven, Belgium, N. Koc, representing Tromso, Norway and G. Bartoli, presenting Zurich, Switzerland.

ESSAC Consensus 0911-07: Location of ESSAC Meeting #14 (May 2010) will be Tromsø, Norway; location of ESSAC Meeting #15 (October 2010) will be Zurich, Switzerland; location of ESSAC Meeting #16 (May 2011) will be Leuven, Belgium.