16h Meeting of the
ECORD Science Support & Advisory Committee
ESSAC

May 11-13, 2010, Leuven, Belgium

Agenda of the 16th ESSAC Meeting

May 11-13, 2010, Leuven, Belgium

Wednesday May 11, 2011, 9:00 – 18:00h

1. Introduction

1.1	Call to order, introductions (Stein)	(5')
1.2	Welcome and meeting logistics (Foubert)	(5')
1.3	Discussion and approval of the Agenda (Stein)	(5')
1.4	Items since the 15th ESSAC Meeting and ESSAC Office news (Stein)	(20')

2. IODP News

2.1	Lead Agencies SASEC and IWG+ (Mével)	(20')
2.2	New Science Plan (Mével)	(10')
2.3	Science Steering Evaluation Panel – SSEP (Stein)	(10')
2.4	Science Planning Committee SPC and Operation Task Force OTF (Stein)	(45')

3. ECORD News

3.1	EMA - ECORD Council and ECORD ILP activities (Mével)	(20')
3.2	ECORD evaluation (Mével)	(10')
3.3	ECORD statistics (Stein)	(20')
3.4	ESO (Stein)	(10')
3.5	ESO-EMA-ESSAC Outreach & ECORD publications (Maruéjol)	(20')

Lunch

3.6	ESSAC representatives and National Office reports (ESSAC Delegates)	(60')

4. ECORD highlights

IODP Expedition 334 - Costa Rica Seismogenesis Project (Vannucci) (45')

5. Breakout sessions

Introductions (Stein) (05')

Breakout sessions ESSAC Nomination and staffing / Education and Outreach / AD-HOC Working Group (90')

Group dinner

Thursday May 12, 2011, 9:00 – 16:30h

6. Nominations and Staffing

6.1 Staffing (Stein) (45')

6.1.1 Ranking procedures, quotas and statistics

6.1.2 Updates on expedition staffing and applications:
Superfast (335), Mid-Atlantic Microbiology (336), Shimokita Coal-Bed Biosphere (337), NanTroSEIZE Stage 3, Plate Boundary Deep Riser -2 (338), Mediterranean Outflow (339), Lesser Antilles Volcanism and Landslides (340), Alaska Tectonics Climate and Sedimentation (341)

6.1.3 Nominations of co-chiefs

6.2 Updates on SAS panels (Stein) (10')

6.3 N&S Subcommittee report, discussion and future actions (Lourens) (45')

7. Education and outreach

7.1 Summer Schools 2011 update

7.1.1 USSP: The Urbino Summer School in Paleoclimatology, July/August 2011, update (Lourens) (10')

7.1.2 ECORD Summer School on Subseafloor Fluid Flow and Gas Hydrates, Bremen, September 2011, update (Lezius) (10')

7.2 ECORD Scholarships 2011, Workshops & Summer Schools and ECORD Research Grants 2011 (Lezius) (10')

7.3 ECORD Summer Schools 2012 (Lezius) (05')

7.4 Distinguished Lecturer Programme 2010/2012 (Lezius) (10')

7.5 E&O Subcommittee report, discussion and future actions (Wagenreich) (45')

Lunch

8. ECORD highlights: examples of the 2010/2012 DLP series :
What do we know about mantle plumes and what more can we learn by IODP drilling? (Weis) (45')

9. Workshops, communication and vision

9.1 Engaging Early Career Scientists in Future Scientific Ocean Drilling (Lezius) (10')

9.2 Geological carbon capture & storage in mafic and ultramafic rocks: Role of oceanic and continental scientific drilling (Ceuleneer) (10')

9.3 ESF Magellan Programme: updates (Erbacher) (20')

9.4 Major achievements and perspectives in scientific ocean and continental drilling at EGU 2011 (Stein) (10')

10. Review of consensus, motions and actions (Stein) (15')

11. Next meetings
ESSAC #17, October 2011, Dublin, Ireland (Hardy),
ESSAC #18, Denmark (Seidenkrantz) (10')

12. Any Other Business (Stein)

End of meeting

Friday May 13, 2011

Field trip

List of Participants

ESSAC Office

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

ESSAC Representatives

Eve Arnold	ESSAC Alternate Sweden
Serge Berné	ESSAC Delegate France
Carlota Escutia (Vice-Chair)	ESSAC Delegate Spain
Anneleen Foubert (meeting host)	ESSAC Alternate Belgium
Gretchen Früh-Green	ESSAC Delegate Switzerland
David Hardy	ESSAC Alternate Ireland
Rachael James	ESSAC Delegate UK
Annakaisa Korja	ESSAC Alternate Finland
Lucas Lourens	ESSAC Delegate Netherlands
Marit Solveig Seidenkrantz	ESSAC Delegate Denmark
Antje Voelker	ESSAC Delegate Portugal
Michael Wagreich	ESSAC Alternate Austria
Dominique Weis	ESSAC representative Canada, ECORD Distinguished Lecturer
Paola Vannucci	ESSAC representative Italy, CRISP co-cief

Observers/Guests

Jochen Erbacher	ESF Magellan Workshops
Georges Ceuleneer	IODP-France, ESSAC Alternate France
Patricia Maruéjol	EMA
Catherine Mével	EMA

Apologies

Neil Banerjee	ESSAC Delegate Canada
Elisabetta Erba	ESSAC Delegate Italy
Helga Kleiven	ESSAC Alternate Norway
Nalan Koç	ESSAC Delegate Norway
Dave McInroy	ESO
Xavier Monteys	ESSAC Delegate Ireland
Alan Stevenson	ESO
Werner Piller	ESSAC Delegate Austria
Ian Snowball	ESSAC Delegate Sweden
Rudy Swennen	ESSAC Delegate Belgium
Uli Wortmann	ESSAC Alternate Canada
Bryndís Brandsdóttir	ESSAC Delegate Iceland

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ESSAC Terms of References

ACEX	**A**rctic **C**oring **Ex**pedition (Expedition 302)
APLACON	**A**lternative **Pla**tform **Con**ference (Lisbon, May 2001)
AF	**A**cademy of **F**inland
BCR	**B**remen **C**ore **R**epository
BGS	**B**ritish **G**eological **S**urvey (UK)
BoG	IODP-MI **B**oard **of G**overnors
CDC	**C**onceptual **D**esign **C**ommittee (new riser vessel)
CDEX	**C**enter for **D**eep Earth **EX**ploration (Japan)
CoNISMa	**Co**nsorzio **N**azionale **I**nteruniversitario per le **S**cienze del **Ma**re (Italy)
CDP	**C**omplex **D**rilling **P**roject
CNR	**C**onsiglio **N**azionale delle **R**icerche (Italy)
CNRS	**C**entre **N**ational de la **R**echerche **S**cientifique (France)
DASTI	**D**anish **A**gency for **S**cience, **T**echnology and **I**nnovation
DFG	**D**eutsche **F**orschungs**G**emeinschaft (German Research Foundation)
EC	**E**uropean **C**ommission
ECORD	**E**uropean **C**onsortium for **O**cean **R**esearch **D**rilling
EDP	**E**ngineering **D**evelopment **P**anel
EPC	**E**uropean **P**etrophysics **C**onsortium
EMA	**E**CORD **M**anaging **A**gency
ERA-Net	**E**uropean **R**esearch **A**rea **Net**work
ESF	**E**uropean **S**cience **F**oundation
EPSP	**E**nvironmental **P**rotection & **S**afety **P**anel
ESO	**E**CORD **S**cience **O**perator
ESSAC	**E**CORD **S**cience **S**upport and **A**dvisory **C**ommittee
FWO-Vlaanderen	Fund for Scientific Research-Flanders (Belgium)
FWF	Austrian Science Fund
GRICES	**G**abineta de **R**elacoes **I**nternacionais da **C**iencias e do **E**nsino **S**uperior (Portugal)
GSI	The **G**eological **S**urvey of **I**reland
ICDP	**I**nternational **C**ontinental Scientific **D**rilling **P**roject
IIS-PPG	**I**ndustry **I**ODP **S**cience **P**rogram **P**lanning **G**roup
INGV	**I**stituto **N**azionale di **G**eofisica e **V**ulcanologia (Italy)
INSU	**I**nstitut **N**ational des **S**ciences de l'**U**nivers (France)
IOs	**I**mplementing **O**rganisation**s**
IODP	**I**ntegrated **O**cean **D**rilling **P**rogram
IODP-MI	**IODP M**anagement **I**nternational, Inc.
ISP	**I**nitial **S**cience **P**lan for the IODP
JAMSTEC	**JA**pan **M**arine **S**cience & **TE**chnology **C**enter
J-DESC	**J**apanese **E**arth **D**rilling **S**cience **C**onsortium
JEODI	**J**oint **E**uropean **O**cean **D**rilling **I**nitiative
JOI	**J**oint **O**ceanographic **I**nstitutions
JR	**J**OIDES **R**esolution
LDEO	**L**amont **D**oherty **E**arth **O**bservatory
MEC	**M**inisterio de **E**ducacion y **C**iencia **Y** (Spain)
MEXT	**M**inistry of **E**ducation, Culture, Sports, Science & **T**echnology (Japan)
MoU	**M**emorandum **o**f **U**nderstanding
MOST	People's Republic of China **M**inistry **O**f **S**cience and **T**echnology

MSP	**M**ission-**s**pecific **p**latform
NanTroSEIZE	**Nan**kai **Tro**ugh **SEI**smogenic **Z**one **E**xperiment
NCMR	**N**ational **C**enter for **M**arine **R**esearch (Greece)
NERC	**N**atural **E**nvironment **R**esearch **C**ouncil (UK)
NSF	**N**ational **S**cience **F**oundation (USA)
NWO	Netherlands Organisation for Scientific Research
OD21	**O**cean **D**rilling in the **21**st Century (Japan)
ODP	**O**cean **D**rilling **P**rogram
OEAW	Austrian Academy of Sciences
OGS	Istituto Nazionale di **O**ceanograpfiae di **G**eofisica **S**perimentale (Italy)
RANNIS	The Icelandic Centre for Research
SAS	**S**cience **A**dvisory **S**tructure
SASEC	**S**cience **A**dvisory **S**tructure **E**xecutive **C**ommittee
SciMP	**Sci**entific **M**easurements **P**anel
SNF	**S**wiss **N**ational Science **F**oundation
SODV	**S**cientific **O**cean **D**rilling **V**essel
SPC	**S**cience **P**lanning **C**ommittee
SSEP	**S**cience **S**teering & **E**valuation **P**anel
SSP	**S**ite **S**urvey **P**anel
STP	**S**ite **T**echnology **P**anel
TAMU	**T**exas **A** & **M** **U**niversity
ToR	**T**erms **o**f **R**eference
USSAC	**U**nited **S**tates **S**cience **A**dvisory **C**ommittee
USSSP	**U**nited **S**tates **S**cience **S**upport **P**rogram
UVic	**U**niversity of **Vic**toria (Canada)
VR	Swedish Research Council

ESSAC subcommittee procedures

ESSAC has been structured in three subcommittees (Staffing and Nominations, Education and Outreach, and Workshops, ad-hoc working group) to increase the efficiency of ESSAC and the involvement of the ESSAC Delegates in ESSAC life. Subcommittee general tasks and composition are summarized below.

The subcommittees meet electronically to prepare the meetings on general issues and to work on specific issues at the request of the ESSAC Chair. Each subcommittee is coordinated by an ESSAC Delegate, nominated by the ESSAC Chair. The coordinator is in charge of writing a report for the Agenda book and of presenting the activities of the subcommittee at the meetings. A general discussion follows that presentation.

Staffing and Nominations subcommittee

Members: Lucas Lourens (Coordinator, NL), Ruediger Stein (ESSAC Chair, D), Jeannette Lezius (ESSAC Science Coordinator, D), Neil Banerjee (CDN), Serge Berne (F), Carlota Escutia Dotti (ES), Rachael H. James (UK), Gretchen Früh-Green (CH), Kari Strand (FIN), Antje Voelker (P).

General tasks:

- Suggesting nominations of ECORD representatives (delegates and alternates) on SAS panels, PPGs and DPGs.
- Co-ordinating applications, reviewing all the applications and suggesting nominations of shipboard participants.
- Reviewing the quota of shipboard scientists between participating countries.
- Suggesting co-chief nominations for IODP Expeditions.

Immediate actions:

- Summarize the current ECORD composition of SAS panels, identify future replacements (expertise), and suggest permanent alternates.
- Summarize the current ESSAC composition, identify future replacements (Delegates and alternates), and make recommendations.
- Summarize the quota balance for ECORD participation to IODP Expeditions.

Education and Outreach subcommittee

Members: Xavier Monteys (Coordinator, IRE), Ruediger Stein (ESSAC Chair, D), Jeannette Lezius (ESSAC Science Coordinator, D), Bryndis Brandsdottir (ICE), Elisabetta Erba (I), Nalan Koc (N), Werner Piller (A), Marit-Solveig Seidenkrantz (DK), Ian Snowball (S), Rudy Swennen (B).

General tasks:

- Developing educational opportunities/programs: Teacher's workshops, Summer Schools etc., especially in non-traditional audiences.
- Reviewing Summer School proposals.

- Reviewing applications and suggesting nominations for ECORD scholarships.
- Initiating applications of speakers for the Distinguished Lecturer Series and suggesting nominations.
- Providing new ideas regarding new ways to raise funds for E&O activities.
- Advising on the public outreach (societal relevance of the IODP science).

Immediate actions:

- Make recommendations for deadlines for submission of Summer School proposals and for applications for ECORD scholarships.
- Make suggestions of new ideas regarding E&O activities (societal relevance of the IODP science), especially in non-traditional audiences.
- Make suggestions regarding new ways to raise funds for E&O activities.
- Monitoring ECORD database (e.g. ECORD publications).

AD-HOC Working Groups on relevant themes

1. Introduction

1.1 Letter from the Chair

Dear ESSAC Delegates, ESSAC alternates, and attendees of the 16th ESSAC Meeting,

Over the last months, we issued calls for two expeditions with Chikyu: Expedition 337 (Shimokita Coal-Bed Biosphere) and Expedition 338 (NanTroSEIZE Stage 3, Plate Boundary Deep Riser -2), and calls for three expeditions with JOIDES Resolution: Expedition 339 (Mediterranean Outflow), Expedition 340 (Lesser Antilles Volcanism and Landslides), and Expedition 341 (Alaska Tectonics, Climate and Sedimentation). ESSAC has completed the selection of ECORD scientist for expeditions 337 and 339, and the staffing is in process yet. The Chikyu operation schedule has been changed due to non-IODP work for Chikyu in 2011; thus CDEX officially announced the postponement of IODP Expedition 338 until summer 2012. Calls for applications to sail on expeditions 340 and 341 are open until May 01, 2011. More information about the scientific objectives, precise dates, and official notification of all these expeditions can be found in the table (below) and on the IODP website at: http://www.iodp.org/expeditions/.

Concerning ECORD contributions to IODP expeditions and their outcome, some statistics were put together by the ESSAC Office based on input from the national IODP offices and ESSAC delegates. Since the beginning of IODP until the end of 2011/beginning of 2012, i.e., starting with IODP Expedition 301 (Juan de Fuca Hydrogeology) and ending with IODP Expedition 339 (Mediterranean Outflow), 39 expeditions were carried out or scheduled. The scientific objectives of these expeditions are related to the three main themes of the Initial Science Plan, i.e., Deep Biopshere and Subseafloor Ocean (9 expeditions, highlighted in green in Fig. 1), Processes and Effects of Environmental Change (13 expeditions, highlighted in light blue in Fig. 1), and Solid Earth Cycles and Geodynamics (17 expeditions with 9 of which were devoted to the NanTroSEIZE Experiment, highlighted in red in Fig. 1). 13 of the 39 expeditions are based on proposals led by ECORD scientists. Following the Memorandum of Understanding signed by NSF, MEXT and EMA/ECORD, eight ECORD scientists may sail onboard a „normal“ IODP expedition (there might be exception for expeditions with a reduced Science Party), i.e., there is the same number of participants from USA (8), Japan (8), and ECORD countries (8). As obvious from Figure 1, there are several IODP expeditions with >8 ECORD participants, with maximum numbers of ECORD participants counted for the MSP expeditions 302 (ACEX) and 313 (New Jersey). In total, 24 (one third) of the 74 co-chief scientists are from ECORD countries (Fig. 1).

Following the expeditions, sample requests have to be submitted to the IODP core repositories and have to be approved to obtain sediment material for post-cruise research. Also here, ECORD scientists have a leading role. Between 2003 and 2010, more than 1400 sample request were sent to the core repositories which is about 48% of the total requests (Fig. 2A). The data obtained through multidisciplinary studies of thousands of samples were published in a remarkable total number of >3100 publications with about 2650 in international peer-reviewed journals (including about 100 in Nature and Science) and about 470 IODP proceedings articles (Fig. 2B). In summary, ECORD scientists were and are strongly involved in the planning and implementation of expeditions as well as in post-cruise reseach on IODP sediments and publications of IODP data throughout the running phase of IODP.

The 2010/2012 series of the ECORD Distinguished Lecturer Programme started with the lecturers Kai-Uwe Hinrichs (MARUM, University of Bremen, Germany, “Benthic archaea - the unseen majority with importance to the global carbon cycle revealed by IODP drilling”),

Dominique Weis (PCIGR, University of British Columbia, Canada, “What do we know about mantle plumes and what more can we learn by IODP drilling?”), and Helmut Weissert (ETH Zurich, Switzerland, “Carbon cycle, oceans and climate in the Cretaceous: lessons from Ocean Drilling (DSDP to IODP) and from records on continents”). ECORD still invites colleagues, university or non-profit organisations in ALL European countries (and Canada) to apply via electronical mail to essac.office@awi.de to host a lecture. Applications from non-traditional IODP and ECORD audiences within the European Community are especially welcome.

In 2011, two Summer Schools are funded by ECORD:

· ECORD Summer School on Subseafloor Fluid Flow and Gas Hydrates, Bremen, Germany (September 12-23)

· The Urbino Summer School in Paleoclimatology, Urbino, Italy (July 09-August 01).

ECORD provides scholarships to allow young scientists to attend one of these two ECORD Summer Schools 2011. The call for ECORD Scholarships is open until March 25, 2011. A call to host an ECORD Summer School 2012 is open until May 03, 2011.

ECORD sponsores merit-based awards for outstanding graduate students to conduct research related to the Integrated Ocean Drilling Program. The call for ECORD Research Grants is open until March 25, 2011.

During the EGU 2011 in Vienna, we will organize a special Interdivision Session dealing with major achievements and perspectives in ocean and continental drilling. Details including deadlines are available on: http://meetingorganizer.copernicus.org/EGU2011/session/6436.

All links and further information are provided on our website http://www.essac.ecord.org/.

These are the last ESSAC News we put together for the ECORD Newsletter, and the next ESSAC Meeting to be held on May 11-13, 2011 in Leuven, Belgium, will be the last organized by the ESSAC Office in Bremerhaven before its rotation to Granada, Spain, in October this year. “Time to say good-bye and thank you very much”. Thus, we - Jenny as Science Coordinator and I myself as ESSAC Chair - would like to take the opportunity to thank all the ESSAC delegates, EMA, ESO, the ECORD Council and the other IODP bodies for active cooperation during the last 18 months. Furthermore, I myself would like to point out that running the office in Bremerhaven successfully could not have been achieved without the dedication and hard work of our Science Coordinator – thanks a lot, Jenny! We hope that the constructive and efficient cooperation between all of us will also continue in the future, i.e., during the two final years of the running phase of IODP. Best wishes and good luck for Carlotta Escutia-Dotti who will take-over as new ESSAC Chair running the office in Granada!

I warmly thank Rudy Swennen and Anneleen Foubert for hosting the 16th ESSAC Meeting in Leuven and for their efforts for the arrangements made for that meeting.

I wish you a successful and pleasant meeting.

Ruediger (Rudy) Stein

Bremerhaven, May 05, 2011

1.2 Welcome and meeting logistics of the 16h ESSAC Meeting in Leuven, Belgium May 11-13, 2011

Leuven is a city to discover the past…

Leuven is very proud of both its past and its heritage. Although the first references to the town can be traced back as far as the 9th century and in spite of its strategic location on the river Dyle, it was not until around the 11th-12th century that Leuven began to develop as an important trading centre within the Duchy of Brabant. It was at this time that its first town wall, churches, monasteries and abbeys were built. You will discover…

Leuven is a University town…

The town still owes much of its character to the numerous university college buildings dating from the 16th and 17th centuries, many of which were renovated in the 18th century.

Leuven is a city to discover beers and chocolate…

Few towns in Flanders appeal to the imagination more than this haven for students, where history, culture, architecture, gastronomy and modern science are intermingled to form a compelling cocktail. In terms of culture, art history and gastronomy Leuven has a wide range of possibilities. From its gastronomic tours de force to the dazzling Gothic Town Hall, from a delicious Leuven pint and the student atmosphere of the Old Market Square to the demure magnificence of the Saint-Peter's church.

Welcome to Leuven!

Tuesday 10th May 2011

Arrival at **Brussels airport** (http://www.brusselsairport.be).

Leuven is just a stone's throw from Brussels national airport. The easiest way to get there is to take the direct train from Brussels airport to the centre of Leuven (there are trains each 20 minutes). By train, Leuven is only 15 minutes from the national airport. At the following website you will find all the train schedules: http://www.b-rail.be/ .

Accommodation (incl. breakfast) is booked at the hotel 'New Damshire' (http://www.hotelnewdamshire.be/), which is a 5 minutes' walk (550 m) from the congress-center 'Grand Beguinage' and close to the historical city centre.

Hotel New Damshire

Schapenstraat 1 (Pater Damiaanplein)

3000 Leuven

Belgium

Tel. : +32-16-745245

Fax : +32-16-745246

Single room 119 Euro/night

Double room 130 Euro/night

Transport from the station to the hotel can be by foot (20 minutes walk) or taxi. If you have any transport problems please do not hesitate to phone Anneleen Foubert (see details below).

Wednesday 11th/ Thursday 12th May 2011

The meeting takes place at the 'Grand Beguinage' (http://www.facultyclub.be – room 'Swerius', Groot Begijnhof 14, B-3000 Leuven). You can easily walk from the hotel to the 'Grand Beguinage' (550 m – 5 minutes - see map). The meeting starts at 09:00 AM and ends at 18:00 PM. Morning coffee will be offered from 08:00 AM on. Lunch will be served at the room 'Infirmerie'.

A conference dinner offered by ESSAC is foreseen on Wednesday evening at the room 'Heilige Geesttafel' (19:00 PM). Please mail to Anneleen Foubert if you are vegetarian or need any special diets.

Friday 13th May 2011

An excursion will be organized to the Devonian and Carboniferous Carbonate Mounds, lead by Prof. Dr. F. Boulvain from the University of Liège. The excursion starts at 08.30 o'clock and ends at 18.00 o'clock. A bus service from and to the hotel will be arranged. The excursion includes a visit to the carbonate mounds with explanatory excursion guide and a 'trappist'-lunch (incl. tasting of 'trappist beer and trappist cheese').

For further assistance regarding administrative and logistical matters, please contact the meeting host:

Anneleen Foubert - Rudy Swennen

E-mail: anneleen.foubert@ees.kuleuven.be

Tel: +32-16-327799 (work) or +32-498758470 (mobile)

1.3 Discussion and approval of the Agenda

At the meeting in Leuven, Belgium, R. Stein will present the current agenda and highlight potential challenges of the meeting and/or changes of the agenda.

1.4 Approval of the Minutes of the 15th ESSAC Meeting

R. Stein will present the minutes of the 15th ESSAC meeting in Zurich, Switzerland.

1.5 Items since the 15th ESSAC Meeting and ESSAC Office news

R. Stein will present items since the last ESSAC meeting. The list down-below contains the actions items, which arose since the 15th ESSAC meeting in Zurich, Switzerland and that have been accomplished by the ESSAC Office or other persons in charge (ESSAC delegates, subcommittee members or observers) since then (labelled with "**Done**").

Action items not fulfilled yet, have been labelled by "**in progress**".

The full list of action items, consensuses and motions are given in the executive summary (Appendix 1).

> **ESSAC Action Item 1010-01:** ESSAC Office will send out a summarizing email regarding requested dates for statstical information. ***done***

> **ESSAC Action Item 1010-02:** ESSAC Office will ask Bremen Core Repository for a list of shore-based scientists. ***done***

> **ESSAC Action Item 1010-03:** ESSAC delegates will collect dates about published IODP-related papers (+ dissertations) of all their scientists and send the data to the ESSAC Office by deadline December 22. ***done***

> **ESSAC Action Item 1010-04:** ESSAC Office will send out a request for nomination for co-chiefs for expedition 338 – NanTro SEIZE 2/2. ***done***

> **ESSAC Action Item 1010-05:** ESSAC Office will create a form for a standardized questionnaire about Summer Schools.

> **ESSAC Action Item 1010-06:** ESSAC Office will ask organizers of ECORD Summer Schools for statistical information about their Summer Schools. ***done***

> **ESSAC Action Item 1010-07:** ESSAC Office will contact Ocean Leadership to ask for requests they have to participants of School of Rock. ***done***

> **ESSAC Action Item 1010-08:** ESSAC Office will contact Lesie Peart to ask about guidelines teachers of School of Rock are provided with before the cruise. If not available, ESSAC Office will create a draft form for guidelines for ECORD teachers on *JOIDES Resolution*. ***done***

> **ESSAC Action Item 1010-09:** ESSAC Office will contact Jean-Luc Berengue if he is willing to organize and keep contact between all ECORD "rockers"/ former and future participants of School of Rock. ***done***

> **further ESSAC Action Item:** Calls has been issued for Expedition 337 - Deep coalbed biosphere off Shimokita (deadline November 30,2010), Expedition 338 - NanTroSEIZE Plate

Boundary Deep Riser – 2 (deadline December 31, 2010), Expedition 339 - Mediterranean Outflow (deadline January 03, 2011), Expedition 340 - Lesser Antilles Volcanism and Landslides (deadline May 01, 2011) and Expedition 341 - Alaska Tectonics Climate and Sedimentation (deadline May 01, 2011).

Requests has been sent out for nominations of co-chief candidates of the following proposals: 595-Full4 (Indus Fan; PI: Peter Clift), 697-Full3 (Izu-Bonin-Mariana Rearc Crust; PI: Yoshihiko Tamura), 672-Full3 (Baltic Sea; PI: Thomas Andrén), 758-Full2 (Atlantis Massif; PI: Gretchen Früh-Green) and 689-Full IBM Middle Crust.

A call for scholarships for the workshop "Engaging early career scientists in future scientific ocean drilling" has been issued (deadline January 13, 2011). A call for scholarships to attend an ECORD Summer School had been issued (deadline March 25, 2011). A call for ECORD Research Grants had been issued (Deadline March 25, 2011).

2. IODP News

2.1 Lead Agencies, SASEC and IWG+

C. Mével will give a summary about the latest news regarding lead agencies, SASEC and IWG+.

2.2 New Science Plan

C. Mével will give an update about the New Science Plan.

2.3 Science Steering Evaluation Panel – SSEP

R. Stein will present a summary of the last SSEP meeting that took place in Portland, Oregon, USA, from November 9th to 12th, 2010.

2.4 Science Planning Committee - SPC and Operation Task Force & Operation Task Force

R. Stein will present a summary of the 17th SPC meeting that took place at the BGS, Edinburgh, UK, from March 28rd to 31st, 2011.

R. Stein will also give a brief summary about the Operation Task Force meeting that took place at the BGS, Edinburgh, UK, at March 26rd 2011.

3. ECORD News

3.1 EMA - ECORD Council and ECORD ILP activities

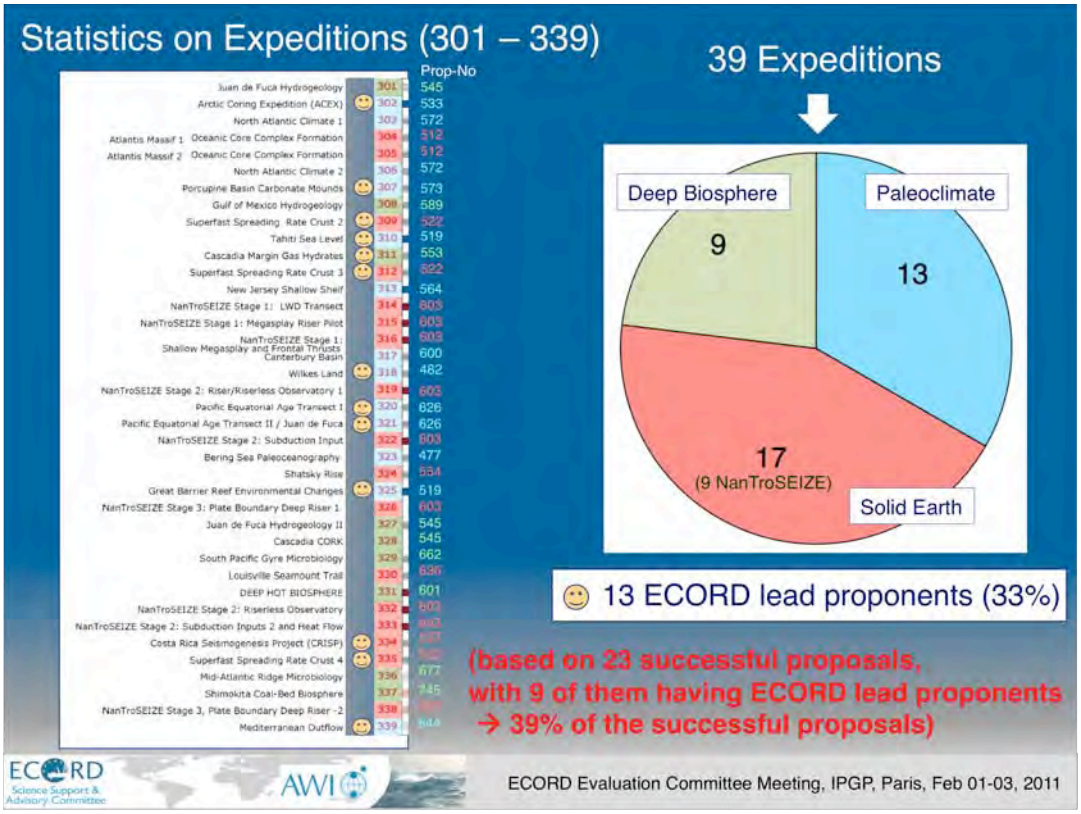
C. Mével will give a summary about the latest news regarding EMA and ECORD Council activities.

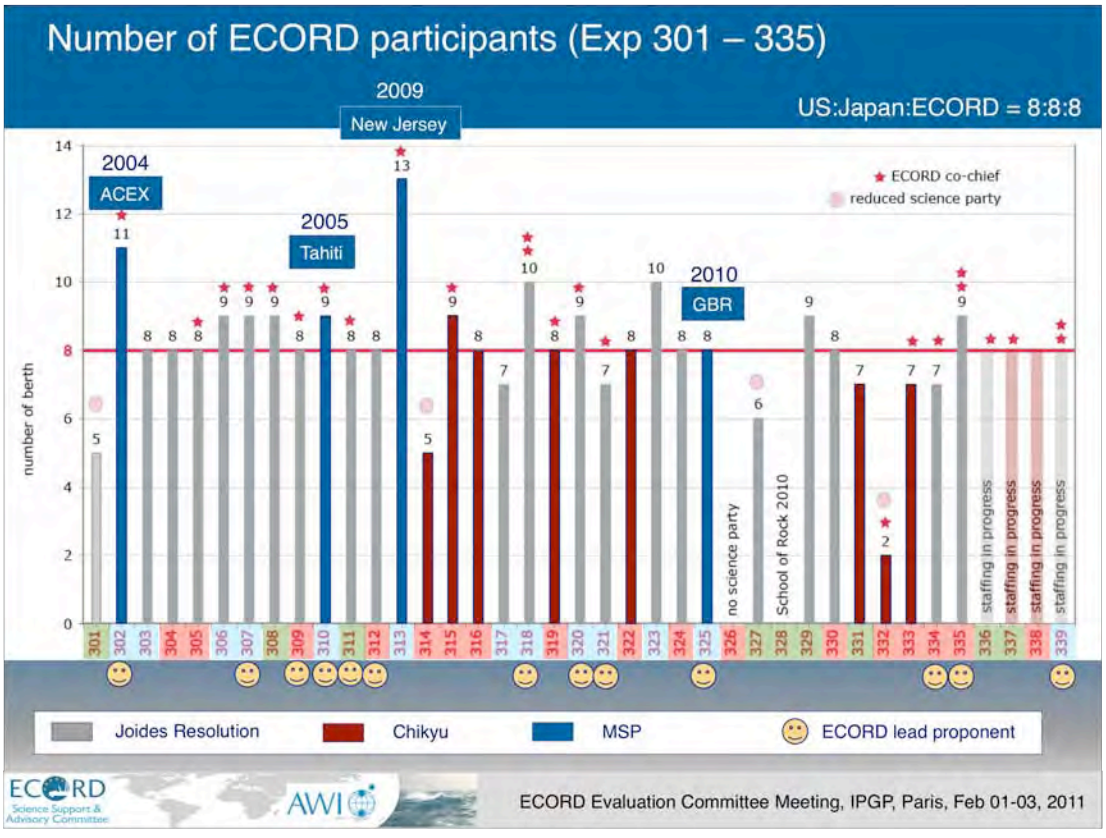
3.2 ECORD evaluation

C. Mével will give a report about the ECORD evaluation.

3.3 ECORD statistics

R. Stein will present some ESSAC statistics.


Statistics on Expeditions (301 – 339)
Prop-No
Juan de Fuca Hydrogeology 301 545
Arctic Coring Expedition (ACEX) 302 533
North Atlantic Climate 1 303 572
Atlantis Massif 1 Oceanic Core Complex Formation 304 512
Atlantis Massif 2 Oceanic Core Complex Formation 305 512
North Atlantic Climate 2 306 572
Porcupine Basin Carbonate Mounds 307 573
Gulf of Mexico Hydrogeology 308 589
Superfast Spreading Rate Crust 2 309 522
Tahiti Sea Level 310 519
Cascadia Margin Gas Hydrates 311 553
Superfast Spreading Rate Crust 3 312 522
New Jersey Shallow Shelf 313 564
NanTroSEIZE Stage 1: LWD Transect 314 603
NanTroSEIZE Stage 1: Megasplay Riser Pilot 315 603
NanTroSEIZE Stage 1: Shallow Megasplay and Frontal Thrusts Canterbury Basin 316 603
Wilkes Land 317 600
NanTroSEIZE Stage 2: Riser/Riserless Observatory 1 318 482
Pacific Equatorial Age Transect I 319 603
Pacific Equatorial Age Transect II / Juan de Fuca 320 626
NanTroSEIZE Stage 2: Subduction Input 321 626
Bering Sea Paleoceanography 322 603
Shatsky Rise 323 477
Great Barrier Reef Environmental Changes 324 554
NanTroSEIZE Stage 3: Plate Boundary Deep Riser 1 325 519
Juan de Fuca Hydrogeology II 326 603
Cascadia CORK 327 545
South Pacific Gyre Microbiology 328 545
Louisville Seamount Trail 329 662
DEEP HOT BIOSPHERE 330 636
NanTroSEIZE Stage 2: Riserless Observatory 331 601
NanTroSEIZE Stage 2: Subduction Inputs 2 and Heat Flow 332 603
Costa Rica Seismogenesis Project (CRISP) 333 n/a3
Superfast Spreading Rate Crust 4 334 637
Mid-Atlantic Ridge Microbiology 335 636
Shimokita Coal-Bed Biosphere 336 677
NanTroSEIZE Stage 3, Plate Boundary Deep Riser -2 337 745
Mediterranean Outflow 338 n/a
339 n/a
39 Expeditions
Deep Biosphere
9
Paleoclimate
13
17
(9 NanTroSEIZE)
Solid Earth
13 ECORD lead proponents (33%)
(based on 23 successful proposals,
with 9 of them having ECORD lead proponents
→ 39% of the successful proposals)
ECORD Science Support & Advisory Committee
AWI
ECORD Evaluation Committee Meeting, IPGP, Paris, Feb 01-03, 2011


Number of ECORD participants (Exp 301 – 335)
2009
New Jersey
US:Japan:ECORD = 8:8:8
2004
ACEX
2005
Tahiti
2010
GBR
ECORD co-chief
reduced science party
number of berth
no science party
School of Rock 2010
staffing in progress
Joides Resolution
Chikyu
MSP
ECORD lead proponent
ECORD Science Support & Advisory Committee
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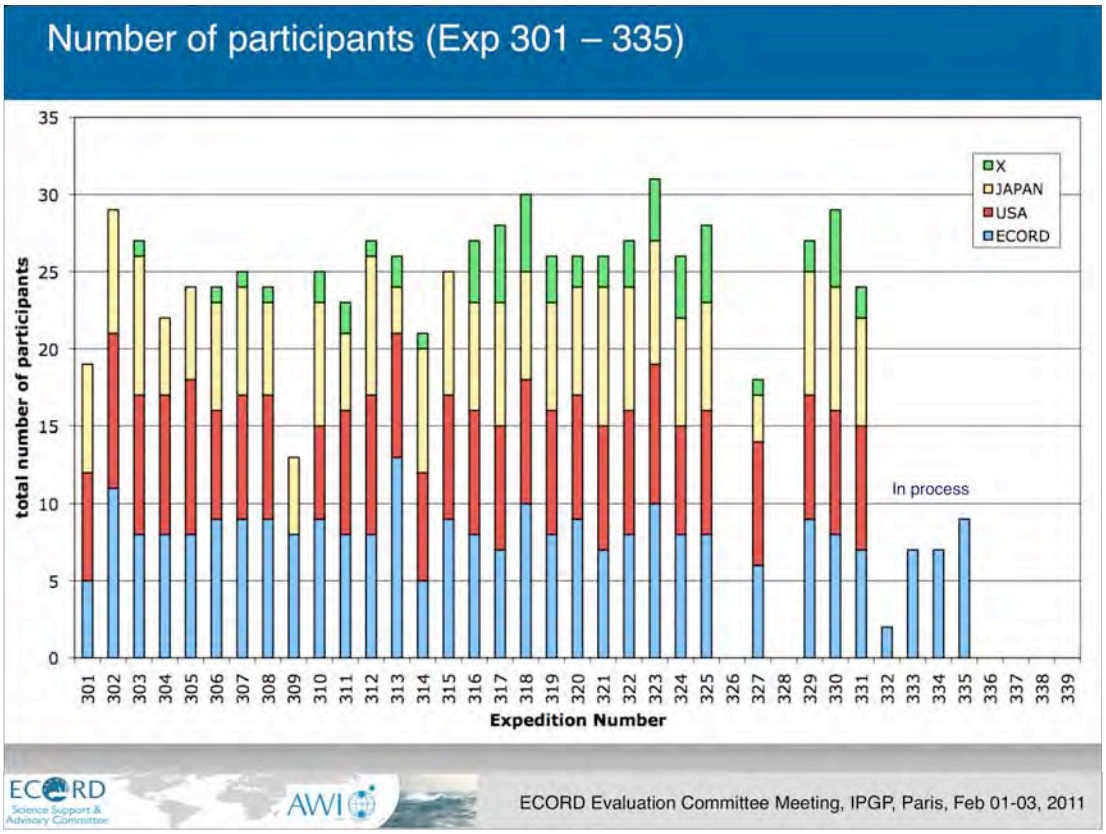
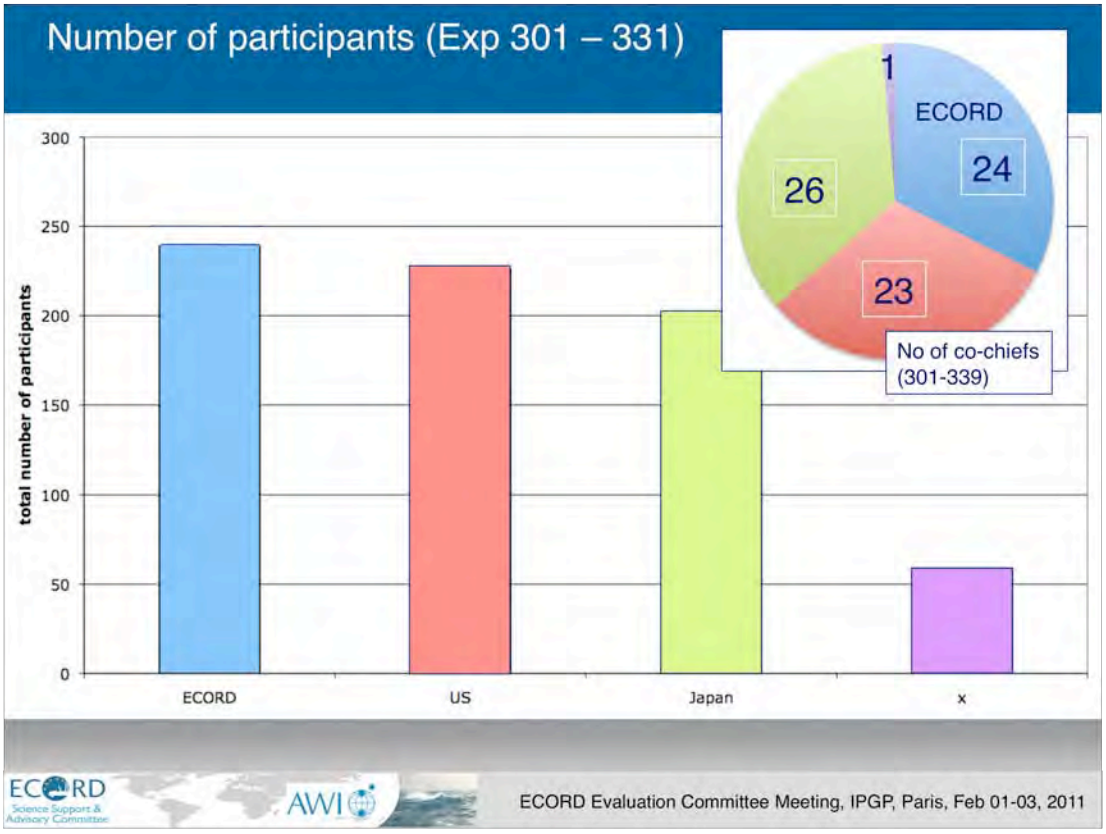
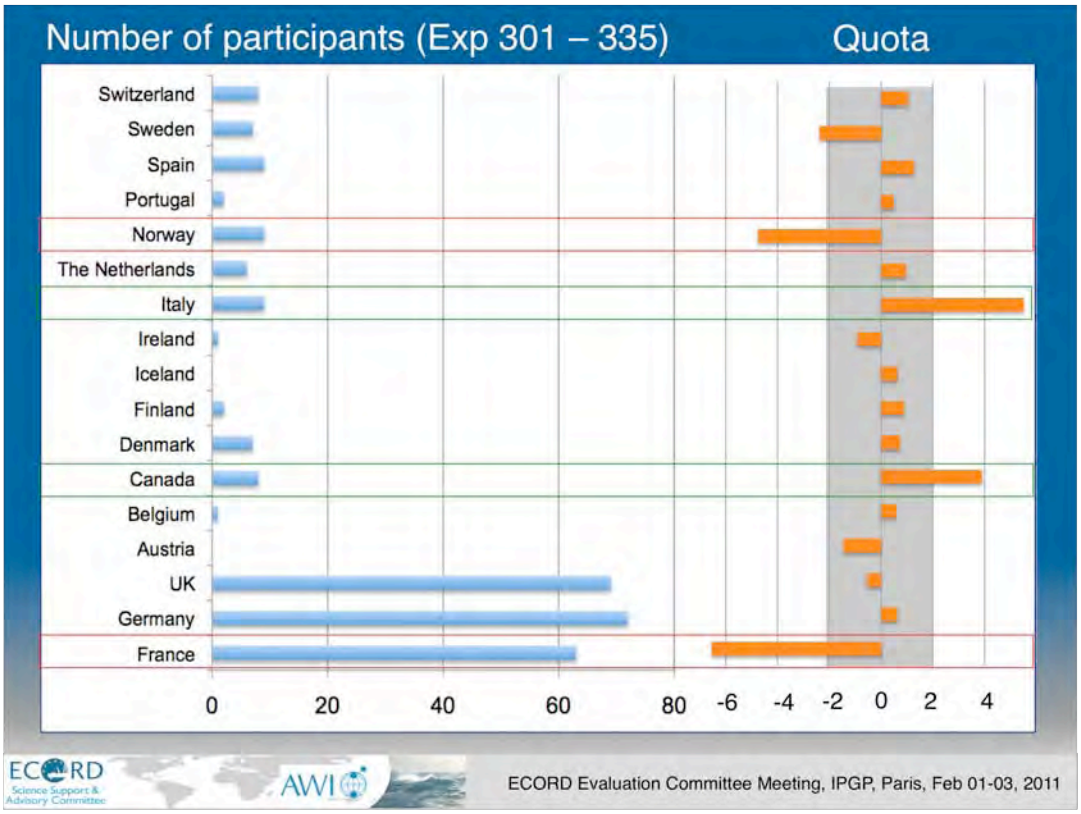

Number of participants (Exp 301 – 335)
total number of participants
Expedition Number
X
JAPAN
USA
ECORD
In process
ECORD Evaluation Committee Meeting, IPGP, Paris, Feb 01-03, 2011


Number of participants (Exp 301 – 331)
total number of participants
ECORD
US
Japan
x
1
ECORD
24
23
26
No of co-chiefs
(301-339)
ECORD Evaluation Committee Meeting, IPGP, Paris, Feb 01-03, 2011


Number of participants (Exp 301 – 335)
Quota
Switzerland
Sweden
Spain
Portugal
Norway
The Netherlands
Italy
Ireland
Iceland
Finland
Denmark
Canada
Belgium
Austria
UK
Germany
France
0
20
40
60
80
-6
-4
-2
0
2
4
ECORD Science Support & Advisory Committee
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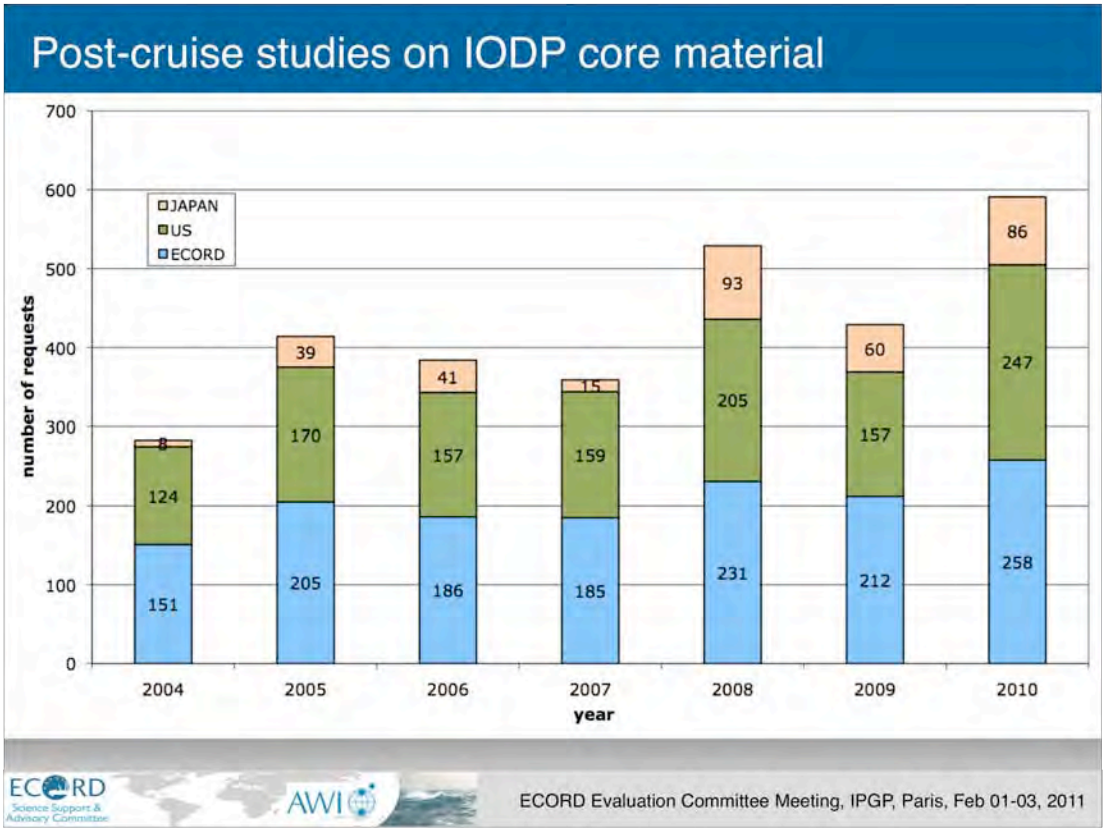
Post-cruise studies on IODP core material
number of requests
year
JAPAN
US
ECORD
2004
2005
2006
2007
2008
2009
2010
151
124
8
205
170
39
186
157
41
185
159
15
231
205
93
212
157
60
258
247
86
ECORD Science Support & Advisory Committee
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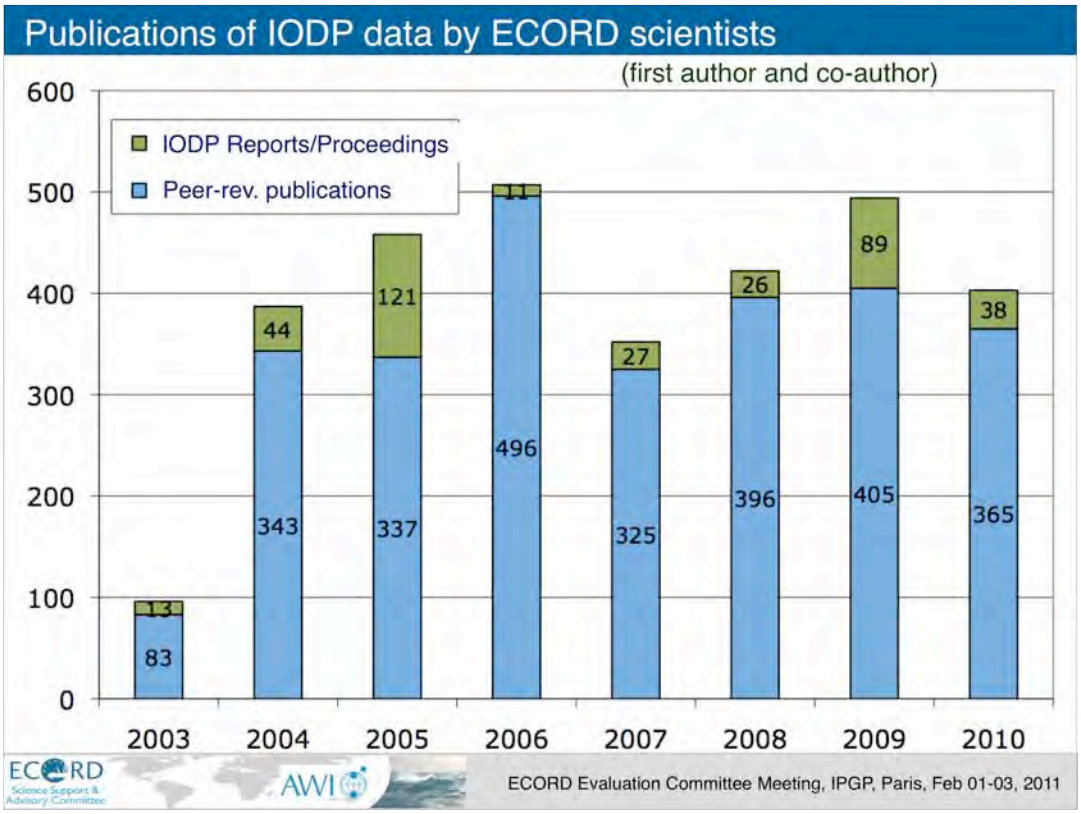
Publications of IODP data by ECORD scientists
(first author and co-author)
IODP Reports/Proceedings
Peer-rev. publications
600
500
400
300
200
100
0
83
13
343
44
337
121
496
11
325
27
396
26
405
89
365
38
2003
2004
2005
2006
2007
2008
2009
2010
ECORD Science Support & Advisory Committee
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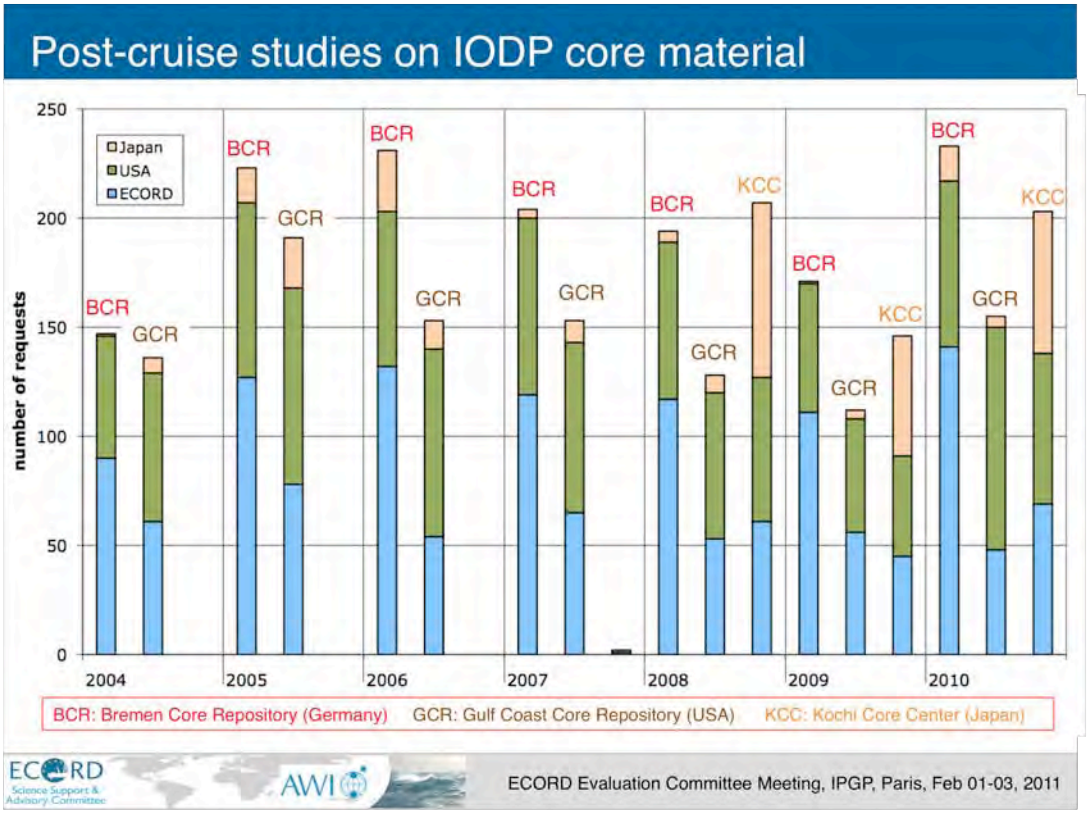
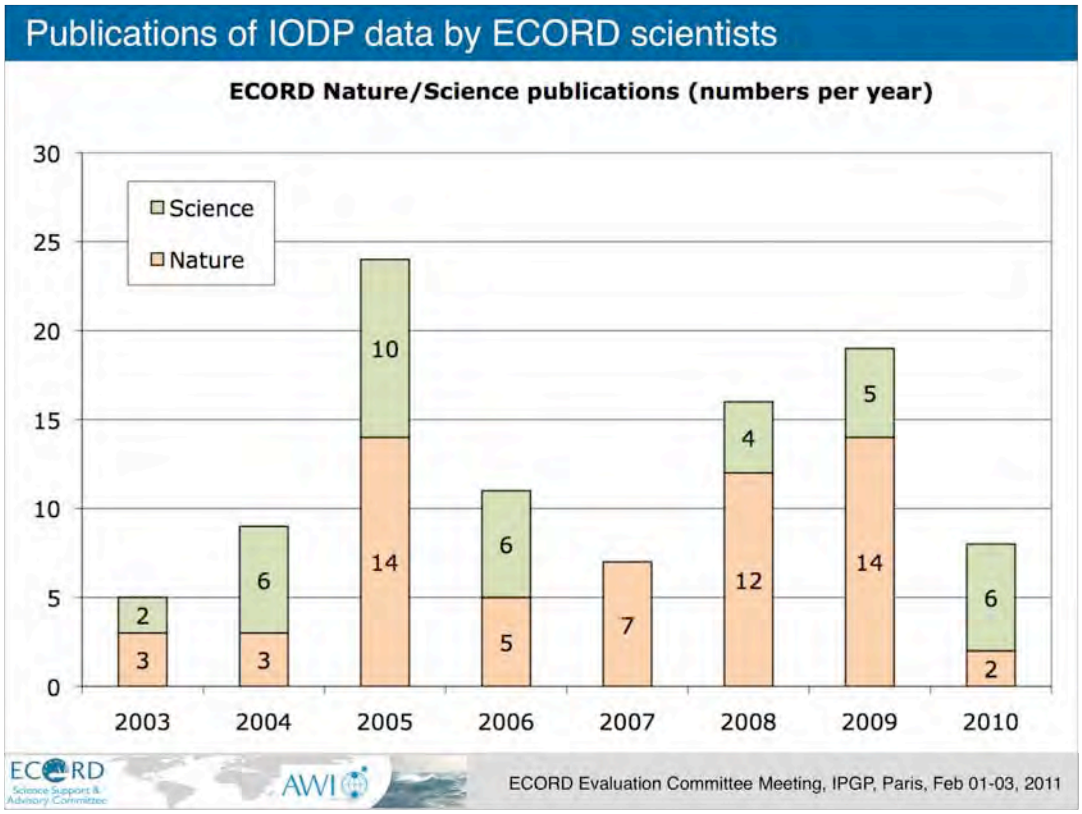
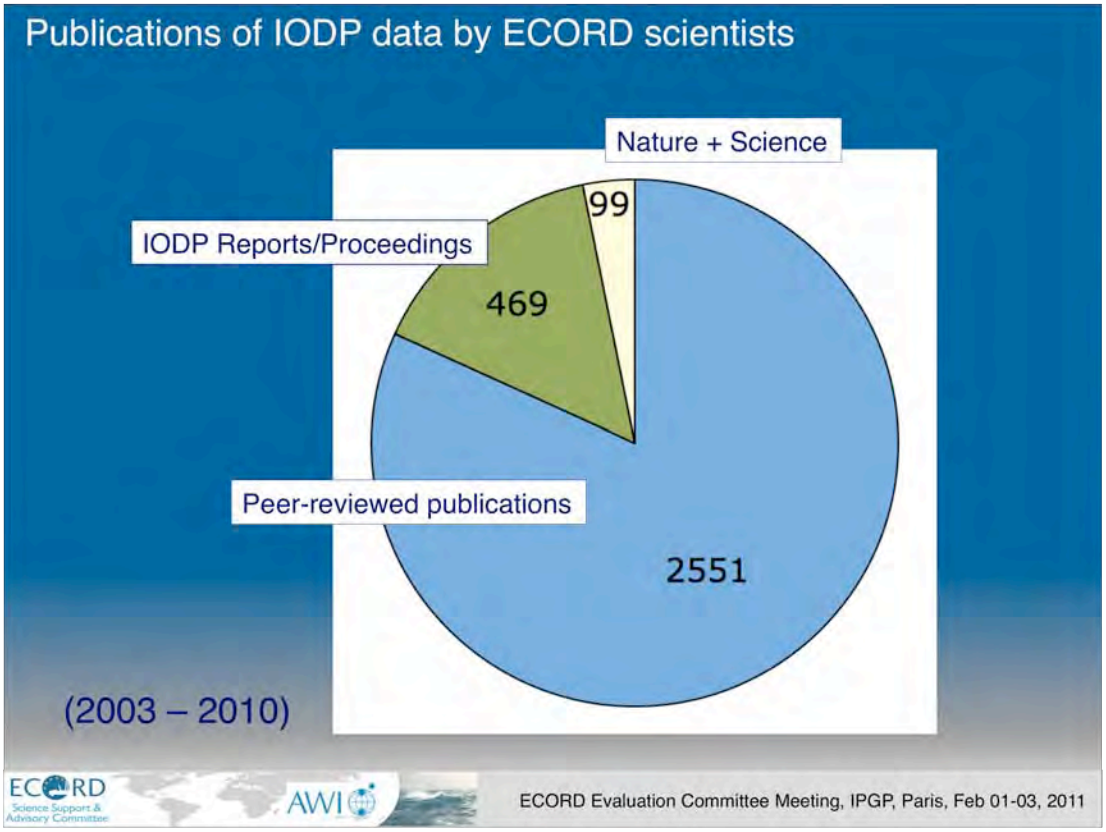
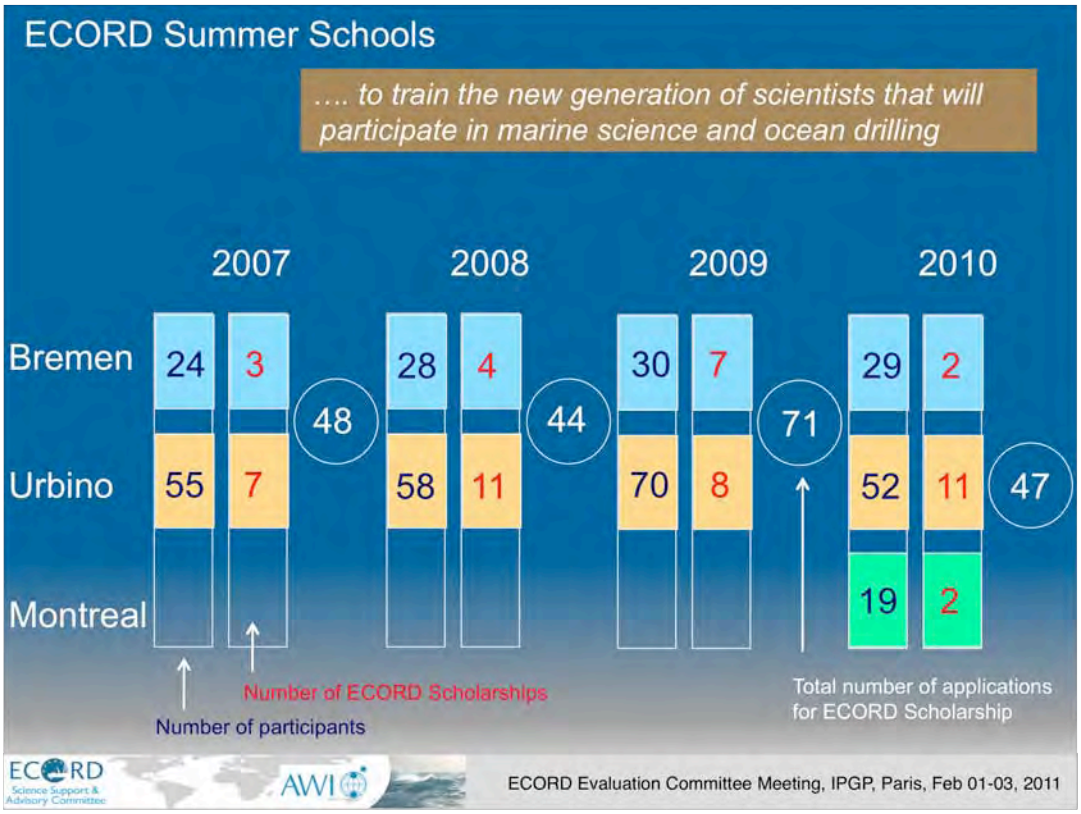
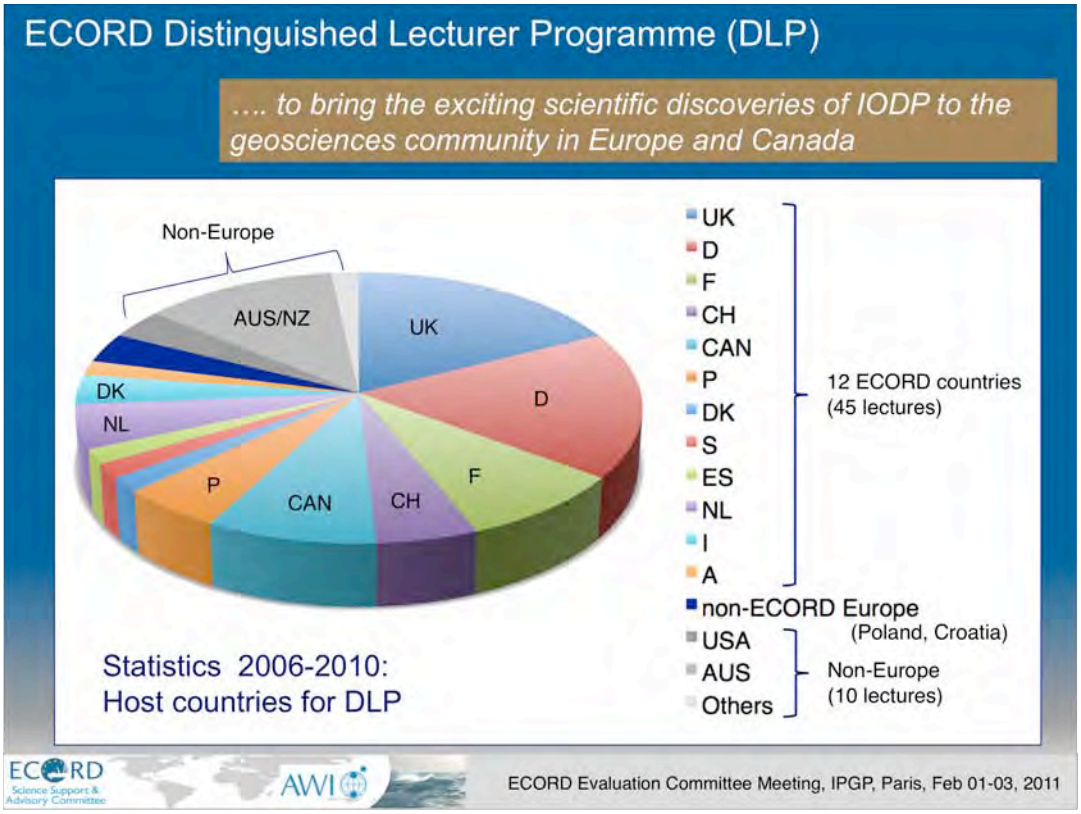

Post-cruise studies on IODP core material
number of requests
Japan
USA
ECORD
250
200
150
100
50
0
BCR
GCR
KCC
2004
2005
2006
2007
2008
2009
2010
BCR: Bremen Core Repository (Germany)
GCR: Gulf Coast Core Repository (USA)
KCC: Kochi Core Center (Japan)
ECORD Science Support & Advisory Committee
AWI
ECORD Evaluation Committee Meeting, IPGP, Paris, Feb 01-03, 2011


Publications of IODP data by ECORD scientists
ECORD Nature/Science publications (numbers per year)
30
25
20
15
10
5
0
Science
Nature
2003
2004
2005
2006
2007
2008
2009
2010
3
2
3
6
14
10
5
6
7
12
4
14
5
2
6
ECORD
Science Support & Advisory Committee
AWI
ECORD Evaluation Committee Meeting, IPGP, Paris, Feb 01-03, 2011


Publications of IODP data by ECORD scientists
Nature + Science
99
IODP Reports/Proceedings
469
Peer-reviewed publications
2551
(2003 – 2010)
ECORD
Science Support & Advisory Committee
AWI
ECORD Evaluation Committee Meeting, IPGP, Paris, Feb 01-03, 2011


ECORD Summer Schools
…. to train the new generation of scientists that will participate in marine science and ocean drilling
2007
2008
2009
2010
Bremen
Urbino
Montreal
24
3
48
28
4
44
30
7
71
29
2
55
7
58
11
70
8
52
11
47
19
2
Number of ECORD Scholarships
Number of participants
Total number of applications for ECORD Scholarship
ECORD Science Support & Advisory Committee
AWI
ECORD Evaluation Committee Meeting, IPGP, Paris, Feb 01-03, 2011


ECORD Distinguished Lecturer Programme (DLP)
…. to bring the exciting scientific discoveries of IODP to the geosciences community in Europe and Canada
Non-Europe
AUS/NZ
UK
D
F
CH
CAN
P
DK
NL
UK
D
F
CH
CAN
P
DK
S
ES
NL
I
A
12 ECORD countries (45 lectures)
non-ECORD Europe
(Poland, Croatia)
USA
AUS
Others
Non-Europe (10 lectures)
Statistics 2006-2010:
Host countries for DLP
ECORD Science Support & Advisory Committee
AWI
ECORD Evaluation Committee Meeting, IPGP, Paris, Feb 01-03, 2011

3.4 ESO

Current Activities

ESO has no planned missions in 2011. Post-Expedition work related to Expedition 313 (New Jersey) and Expedition 325 (Great Barrier Reef) is ongoing.

Future Plans

The following table summarises MSP proposals at various stages in the IODP SAS.

Proposal	Short title	Panel	Comments
548	Chicxulub K-T Impact Crater	OTF	Forwarded March 2010, SPC ranked #4
716	Hawaiian Drowned Reefs	OTF	Forwarded March 2009, SPC ranked #6
581	Late Pleistocene Coralgal Banks	OTF	Forwarded March 2010, SPC ranked #10
637	New England Shelf Hydrogeology	OTF	Forwarded March 2009, SPC ranked #4, in holding bin with technology issues
758	Atlantis Massif Seafloor Processes	OTF	Forwarded March 2011, SPC ranked #1*
672	Baltic Sea Basin Paleoenvironment	OTF	Forwarded March 2011, SPC ranked #2*
748	Nice Airport Landslide	SPC	Assessed March 2011, SPC: no ESO action at this stage

*March 2011 SPC ranking exercise was conducted by platform.

ESO is continuing to follow the ECORD direction to aim to implement at least one Mission Specific Platform Expedition before the end of the program. ESO is currently scoping 548 (Chicxulub), 716 (Hawaiian Drowned reefs), 672 (Baltic Sea Basin) and 758 (Atlantis Massif).

An OTF meeting is planned for 10-11 June 2011 in Edinburgh immediately prior to the SASEC meeting. Outcomes of this meeting will steer ESO for the remainder of the current programme and the results will be presented at SASEC.

In addition:

- ESO will continue to co-ordinate the publication of the results of the New Jersey Shallow Shelf and Great Barrier Reef Expeditions, and will assist the Co-chief Scientists in coordinating post-expedition meetings.
- ESO will continue toward implementation of the IODP QA/QC Task force report including reassessing the existing protocols for performing calibration, determining uncertainty, and generating of expedition-specific QA/QC protocols.
- ESO is working with EMA on a new business plan for ECORD post-2013.
- ESO has participated in an external review of ECORD and the results should be available for the June SASEC meeting.
- ESO attended EGU in Vienna, where a new DVD/web film about MSPs and ECORD was presented. The video is available on the ECORD website.

3.5 ESO-EMA-ESSAC Outreach & ECORD publications

P. Maruéjol will report on the recent ECORD outreach activities (December 2010 to early May 2011) discussed at the last EMA-ESO-ESSAC (ECORD Outreach) meeting held at the EMA office in Paris, on February 14-15, 2011. The meeting was attended by A. Stevenson and A. Gerdes (ESO), J. Lezius and R. Stein, C. Mével, M. Benchikh and P. Maruéjol (EMA).

1) New/revised ECORD publications

- **ECORD Newsletter #16 - April 2011**, 20-page issue, released at EGU 2011 and available online at: http://www.ecord.org/pub/nl.html.

This issue is made up of ECORD information from mid-November 2010 to mid March 2011, with messages and news from the ECORD bodies, reports of the loans of the core replicas, Magellan Series Workshops, a short article on PANGAEA (H. Wallrabe-Adams), a Letter from Switzerland (J. McKenzie and M. Kern-Lütschg), a presentation of the mini-CORK observatory deployed during IODP Expedition 319 (A. Kopf) and the last deglaciation events reconstructed from the results of the Tahiti Sea-Level expedition by G. Camoin.

The next issue - ECORD Newsletter #17 - will be discussed during the next EMA-ESO-ESSAC meeting and assembled according to the following deadlines:

- Call for contributions - to be issued on early August 2011,
- Author's deadline - September 15, 2011
- Date of release - mid October 2011.

The following items have been identified:

- Broadening the MSP concept (ESO)
- Reports of the 2011 Urbino and Bremen summer schools
- A Letter from Norway (N. Koç and O. Pettersen)
- Feedback from the classroom by ECORD teachers who recently sailed IODP expeditions
- The New Science Plan for IODP 2013-2023 from ECORD's perspective
- Report of the ECORD evaluation

- **ECORD Publications**

The ECORD Folder was revised with new information about the two last MSP expeditions (Exp 313 and 325) and released at EGU 2011. A new brochure entitled "Scientific Drilling in the Arctic Ocean' to stimulate industry interests in this area was set up by D. Dove (UK IODP) and released last January.

2) Outreach activities:

- Joint ECORD/IODP-ICDP booth and Townhall meeting at EGU 2011, Vienna,
- Release of the new ECORD video 'Exploring the Earth under the sea' at EGU 2011,
- Providing ECORD materials:
  - Loan of IODP core replicas + posters to two French high schools,
  - Booth posters and printed materials to IODP-Canada for the IODP-ICDP booth at GAC-MAC 2011 in Ottawa.
  - printed materials provided to IODP-MI and CDEX for booths at upcoming Earth science conferences (OTC, Houston, JPGU, Tokyo, AOGS, Taipei)

- Comments sent on the Outreach section of the New Science Plan (draft)
- BBC article "Dino crater focus for ocean drilling plans" released after the IODP press conference at EGU 2011

3) Future activities and publications

- Organisation of the IODP booth at Goldschmidt 2011 in Prague, Aug 15-19
- Organisation of the IODP booth at 3P Arctic 2011 in Halifax, Canada (ESO and ECORD ILP), Aug. 30-Sept. 1
- Loan of core replicas to the Urbino Summer School (July) and to GeoItalia 2011 in Torino (early Sept.)
- ECORD document to the European Commission (request of the Council)
- Update of the ECORD leaflet after the ESSAC Office moves to Granada
- Preparation of a new online photogallery of MSP expeditions and archives
- Making new core replicas, in particular from New Jersey and GBREC expeditions
- Next ECORD outreach meeting, mid August in Prague

3.6 ESSAC representatives and National Office reports

Each ESSAC delegates will give a short summary about the latest national activities regarding IODP and ECORD issues. The current ESSAC delegates and alternates are given in the table down below:

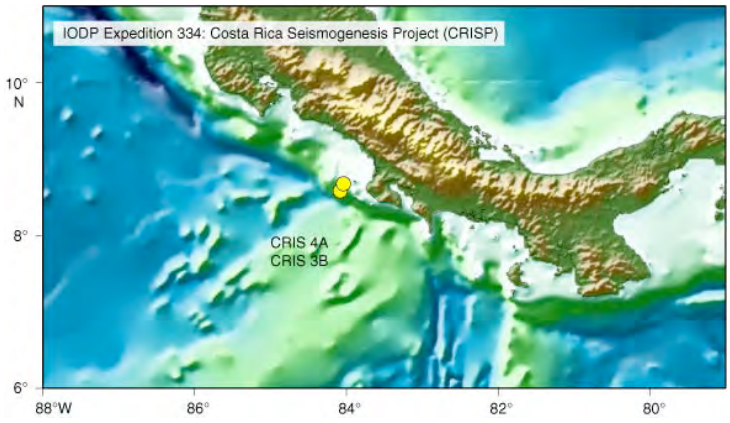
ESSAC Delegates and Alternates		
Austria	Werner E. Piller	Michael Wagreich
	werner.piller@uni-graz.at	michael.wagreich@univie.ac.at
Belgium	Rudy Swennen	Anneleen Foubert
	rudy.swennen@geo.kuleuven.ac.be	Anneleen.Foubert@ees.kuleuven.be
Canada	Neil Banerjee	Ulrich G. Wortmann
	neil.banerjee@uwo.ca	uli.wortmann@utoronto.ca
Denmark	Marit-Solveig Seidenkrantz	Paul Cornils Knutz
	mss@geo.au.dk	pkn@geus.dk
Finland	Kari Strand	Annakaisa Korja
	kari.strand@oulu.fi	annakaisa.korja@helsinki.fi
France	Serge Berne	Georges Ceulener
	serge.berne@univ-perp.fr	georges.ceuleneer@get.obs-mip.fr
Germany (Chair)	Ruediger Stein	Jochen Erbacher
	Ruediger.Stein@awi.de	j.erbacher@bgr.de
Iceland	Bryndís Brandsdóttir	Gudrún Helgadóttir
	bryndis@raunvis.hi.is	gudrun@hafro.is
Ireland	Xavier Monteys	David Hardy
	Xavier.Monteys@gsi.ie	david.hardy@gsi.ie
Italy	Elisabetta Erba	Leonardo Sagnotti
	elisabetta.erba@unimi.it	leonardo.sagnotti@ingv.it

The Netherlands	Lucas Lourens	Stefan Schouten
	llourens@geo.uu.nl	schouten@nioz.nl
Norway	Nalan Koç	Helga F. Kleiven
	Nalan.Koc@npolar.no	kikki@uib.no
Portugal	Antje Voelker	Luiz F. Menezes Pinheiro
	antje.voelker@lneg.pt	lmp@geo.ua.pt
Spain (vice-chair)	Carlota Escutia Dotti	César Ranero
	cescutia@ugr.es	cranero@icm.csic.es
Sweden	Ian Snowball	Eve Arnold
	Ian.Snowball@geol.lu.se	eve.arnold@geo.su.se
Switzerland	Gretchen Früh-Green	Judith McKenzie
	frueh-green@erdw.ethz.ch	judy.mckenzie@erdw.ethz.ch
U.K.	Rachael H. James	Ros Rickaby
	R.H.James@noc.soton.ac.uk	Rosalind.Rickaby@earth.ox.ac.uk

4. ECORD highlight

P. Vannucci will present a report about the Costa Rica Seismogenesis Project.

The Costa Rica Seismogenesis Project (CRISP) is designed to understand the processes that control nucleation and seismic rupture of large earthquakes at erosional subduction zones. CRISP involves the only known erosional end-member of convergent margins within reach of scientific drilling. With a low sediment supply, fast convergence rate, abundant seismicity, subduction erosion, and a change in subducting plate relief along strike, CRISP offers excellent opportunities to learn causes of earthquake nucleation and rupture propagation. This project complements other deep fault drilling (San Andreas Fault Observatory at Depth and Nankai Trough Seismogenic Zone Experiment) and investigates the first-order seismogenic processes common to most faults and those unique to erosional margins. Expedition 334 is based on a part of CRISP Program A (Integrated Ocean Drilling Program Proposal 537A-Full5), which is the first step toward the deep riser drilling through the seismogenic zone. This expedition will focus on constraining the boundary conditions of lithology, fluid flow, and thermal structure that trigger unstable slip in the seismogenic zone along a drilling transect at two slope sites. These slope sites might also serve as pilot holes for potential future proposed riser drilling to reach the aseismic/seismic plate boundary.



5. Breakout Sessions

ESSAC Subcommittees:

Nominations and staffing

Education and outreach

6. Nominations and Staffing

6.1 Staffing

R. Stein will summarize and update on expedition staffing of the following expeditions:

Superfast (335)

Mid-Atlantic Microbiology (336)

Shimokita Coal-Bed Biosphere (337)

NanTroSEIZE Stage 3, Plate Boundary Deep Riser -2 (338)

Mediterranean Outflow (339)

Lesser Antilles Volcanism and Landslides (340)

Alaska Tectonics Climate and Sedimentation (341)

6.2 Updates on SAS panel

R. Stein will summarize about SAS panel nominations and changes within the SAS.

6.3 Subcommittee report, discussion and future actions

L. Lourens reports about the meeting of the « Nomination and Staffing » ESSAC subcommittee at the 16th ESSAC meeting in Leuven (Belgium).

7. Education and outreach

7.1 ECORD Summer Schools 2011 updates

7.1.1 The Urbino Summer School in Paleoclimatology 2011

L. Lourens will give a short report about the Urbino Summer School in Paleoclimatology. PDF course flyer and provisional program are given in the Appendix 2a. Details are to be found on the webpage: http://www.urbinossp.it/

7.1.2 ECORD Summer School on Geodynamics of Past Climate Changes

J. Lezius will give a short report about the ECORD Summer School on Subseafloor Fluid Flow and Gas Hydrates. PDF course flyer and provisional program are given in the Appendix 2b. Details are to be found on the webpage: http://www.glomar.uni-bremen.de/ECORD_Summer_School.html

7.2 ECORD Scholarships 2011, Workshops & Summer Schools and ECORD Research Grants

J. Lezius will give a short overview of duly received applications for ECORD Scholarships to attend the workshop “Engaging early career scientists in future scientific ocean drilling “ and

ECORD Scholarships to attend an ECORD Summer School 2011 as well as duly received applications for ECORD Research Grants 2011 (cf. 7. Breakout session Education and Outreach).

7.3 ECORD Summer Schools 2012

J. Lezius will present the applications to host an ECORD Summer School 2011 (cf. 7. Breakout session Education and Outreach).

7.4 Distinguished Lecturer Programme 2010/2012

J. Lezius will present a short update of the DLP.

7.5 Subcommittee report, discussion and future actions

M. Wagenreich reports about the meeting of the « Education and Outreach » ESSAC subcommittee at the 16th ESSAC meeting in Leuven (Belgium).

8. ESSAC Highlights

D. Weis is one of the 2010/2012 ECORD DLP Lecturers and will present her talk entiteled:

What do we Know about Mantle Plumes, what can Hawaiian Volcanoes tell us about the Earth's Mantle and what more can we learn by IODP Drilling?

It is almost 50 years since the first documentation of mantle heterogeneity through the study of ocean island basalts (OIB) [1]. The origin, scale and source of these heterogeneities have been the subject of debate since then. One of the most common approaches in the study of mantle heterogeneities is to analyze the geochemistry of oceanic basalts brought to the surface by mantle plumes, sampled either on oceanic islands or by drilling oceanic plateaus. The composition of these oceanic plateau and ocean island basalts is usually different from those extruded at mid-ocean ridges (MORB). Improved analytical precision for radiogenic isotopes, combined with statistical data treatment, allow for more detailed investigations into the geochemical variations of basalts related to hotspots and mantle plumes and for modeling of the shallow and deep plume structure. A key factor is the acquisition of continuous, ordered and datable sequences of lavas [2].

Identification of two clear geochemical trends (Loa and Kea) among Hawaiian volcanoes [3, 4] in all isotope systems [5], together with the recurrence of similar isotopic signatures at >350 kyr intervals identified in the HSDP cores, have implications for the dynamics and internal structure of the Hawaiian mantle plume conduit [6]. In this lecture, I will present a compilation of recent isotopic data for samples from shield lavas on Hawaiian volcanoes, focusing specifically on high-precision Pb isotopic data (MC-ICP-MS or DS, TS TIMS) and integrated with Sr, Nd and Hf isotopes. The Hawaiian mantle plume represents >80 Myr of volcanic activity in a pure oceanic setting and corresponds to a high plume flux. All isotopic systems indicate source differences for Loa- and Kea-trend volcanoes that are maintained throughout the ~1 Myr activity of each volcano and that extend back in time on all the Hawaiian Islands (to ~5 Ma). The Loa-trend source is more heterogeneous in all isotopic systems by a factor of ~1.5 than the Kea-trend source, and this can be traced to the core-mantle boundary.

These results from Hawaii will be compared to other hotspots in different tectonic settings (e.g. Kerguelen, Galapagos, and Iceland), and to oceanic plateaus (Ontong-Java, Caribbean, and

Wrangellia). Some implications for mantle geodynamics will be discussed together with ideas for future IOPD and ICDP drilling campaigns.

[1] Gast et al. (1964) Science 145, 1181-1185. [2] DePaolo and Weis (2007) Continental Scientific Drilling: A Decade of Progress and Challenges for the Future, Springer , 259-288. [3] Tatsumoto (1978) Earth and Planetary Science Letters 38, 63-87. [4] Abouchami et al. (2005) Nature 434, 3401-3406. [5] Weis et al. (2009) Eos Trans. AGU, 90(52), Abstract V41F-03. [6] Farnetani and Hofmann (2009, 2010) Earth and Planetary Science Letters 282, 314- 322; 295, 231-240.

9. Workshops, communication and vision

9.1 Engaging Early Career Scientists in Future Scientific Ocean Drilling

J. Lezius will report about the workshop “Engaging Early Career Scientists in Future Scientific Ocean Drilling”.

9.2. Geological carbon capture & storage in mafic and ultramafic rocks: Role of oceanic and continental scientific drilling

G. Ceuleneer reports about workshop “Geological carbon capture & storage in mafic and ultramafic rocks: Role of oceanic and continental scientific drilling”.

9.3 ESF Magellan Programme : updates

J. Erbacher will give an update on ESF Magellan activities (present & future).

9.4 Major achievements and perspectives in scientific ocean and continental drilling at EGU 2011

R. Stein will present a report on the session “Major achievements and perspectives in scientific ocean and continental drilling at EGU 2011 in Vienna.

10. Review of consensus, motions and actions

11. Next meetings

D. Hardy will present fact about the next ESSAC meeting, which will be held in Dublin, October, 2011. M. Solveig-Seidenkrantz will present facts about the spring meeting 2012 of ESSAC that will be held in Denmark.

12. Any other Business

LIST OF CONSENSI, MOTIONS AND ACTIONS
15TH ESSAC MEETING
Zurich, October 26-27, 2010

1. INTRODUCTION

1.3 Discussion and approval of the Agenda

ESSAC Consensus 1010-01: ESSAC approves the Agenda of its 15th meeting on October 26-27, 2010 at the Hotel Uto Kulm in Zurich, Switzerland.

3. ECORD NEWS

1.3 ECORD evaluation

> **ESSAC Action Item 1010-01:** ESSAC Office will send out a summarizing email regarding requested dates for statstical information.

> **ESSAC Action Item 1010-02:** ESSAC Office will ask Bremen Core Repository for a list of shore-based scientists.

> **ESSAC Action Item 1010-03:** ESSAC delegates will collect dates about published IODP-related papers (+ dissertations) of all their scientists and send the data to the ESSAC Office by deadline December 22.

ESSAC Consensus 1010-02: ESSAC delegates agreed to collect dates about published IODP-related papers (+ dissertations) of all their scientists and send the data to the ESSAC Office by deadline December 22.

4. NOMINATIONS AND STAFFING

4.1.2 Nomination of co-chiefs

> **ESSAC Action Item 1010-04:** ESSAC Office will send out a request for nomination for co-chiefs for expedition 338 – NanTro SEIZE 2/2.

4.1.3 SAS

ESSAC Consensus 1010-03: ESSAC approves the following advices to be sent to IWG+ regarding the new SAS structure:
- General composition of the Evaluation Panel (PEP) and the Implementation Panel (SEA) panels should be a mixture of old and new members.
- Chairs in the evaluation and implementation panels will be selected from open calls independent of nationality and financial contribution.
- No members of the present panels will be automatically placed in the new panels, but they will be encouraged to apply to the new calls.
- Concerning the rules of Conflict of Interest (CoI), following the present SSEP regulations, i.e., a meeting's participant should only leave the room when a proposal is evaluated of which he/she is (co)proponent. This person, however, will not be excluded from the entire meeting as it is the case for the present SPC.
- The absolute need of a Site-Survey Panel (SSP) has been stated. The meetings of Evaluation Panel and SSP should co-occur to speed-up the evaluation process. This could imply to merge both panels into one larger evaluation panel and subdivide them into four sub-panels related to the four main themes and one separate sub-panel for the site survey related aspects of all proposals.

7. EDUCATION AND OUTREACH

> **ESSAC Action Item 1010-05:** ESSAC Office will create a form for a standardized questionnaire about Summer Schools.

> **ESSAC Action Item 1010-06:** ESSAC Office will ask organizers of ECORD Summer Schools for statistical information about their Summer Schools.

ESSAC Consensus 1010-03: ESSAC approves the standardized form for CVs for ECORD Scholarships.

ESSAC Consensus 1010-04: ESSAC approves the change in duration to create the report about ECORD Research Grants by awardees from 15 to 12 month.

> **ESSAC Action Item 1010-07:** ESSAC Office will contact Ocean Leadership to ask for requests they have to participants of School of Rock.

> **ESSAC Action Item 1010-08:** ESSAC Office will contact Lesie Peart to ask about guidelines teachers of School of Rock are provided with before the cruise. If not available, ESSAC Office will create a draft form for guidelines for ECORD teachers on *JOIDES Resolution*.

> **ESSAC Action Item 1010-09:** ESSAC Office will contact Jean-Luc Berengue if he is willing to organize and keep contact between all ECORD "rockers"/ former and future participants of School of Rock.

ESSAC Consensus 1010-05: ESSAC approves that procedure of election of ECORD Summer Schools will continue as in the past.

ESSAC Consensus 1010-06: ESSAC approves that financial support for teachers to sail on *JOIDES Resolution* will be decided case-by-case. ESSAC chair will ask the ECORD Council if it would be possible to use a small amount of budget to support teachers if necessary.

10. NEXT MEETINGS

ESSAC Consensus 1010-07: Location of ESSAC Meeting #16 is Leuven, Belgium; it will be held May 11-13, 2011. Location of ESSAC Meeting #17 will be Dublin, Ireland; location of ESSAC Meeting #18 will be Aarhus or Copenhagen, Denmark.

11. Any Other Business

ESSAC Consensus **1010-08**: ESSAC thanks Judith McKenzie for hosting the 15th ESSAC Meeting and for her dedicated and highly effective service within ESSAC from 2003-2010.

The Urbino Summer School in Paleoclimatology
in collaboration with the School of Rock presents

Past Global Change Reconstruction and Modelling Techniques

University of Urbino, Italy
July 9-August 1, 2011

The 8th summer school of the USSP consortium will focus on past climate dynamics with special emphasis on the analysis of the long-term Carbon cycling and its implications in the understanding of Present and Future climates. USSP 2011 will integrate lectures, symposia, fieldtrips, and exercises on the many different areas of paleoclimatology including e.g., biogeochemical cycling, paleoceanography, continental systems, and all aspects of deep time climate modeling. It features interactive discussions of case-studies (e.g. Cretaceous OAEs, P/E hyperthermals, the Greenhouse-Icehouse transition, but also the Neogene and Quaternary climate dynamics, and millennial-scale variability) and will provide participants with an advanced working knowledge on the paleobiological and geochemical proxy data and their use in reconstructing and modeling of past climates.
The USSP consortium is composed of leading senior scientists from around the world of which more than 30 will be involved in active teaching and mentoring in Urbino. USSP 2011 will welcome up to 60 students (end-MSc or early career Graduate and post Graduate) selected on CVs.

Deadline for early-registration
March 15th, 2011

Registration Fee (early registration)
Students: 650 Euros - Academic /industrial staff: 1100 Euros

For more information please visit: www.urbinossp.it

USSP pool of instructors

David Beerling University of Sheffield
Jelle Bijma Alfred Wegener Institute
Steve Bohaty University of Southampton
Gabriel Bowen Purdue University
Raymond Bradley University of Massachussets
Ken Caldeira Carnegie Institution
Thomas Cronin USGS National Center
Robert DeConto University of Massachussets
Henk Dijkstra IMAU Utrecht
Gerald Dickens Rice University
Nicolas Gruber ETH Zurich
David Harwood Univ. of Nebraska Lincoln
Gerald Haug ETH Zurch
Jorijntje Henderiks Stockholm University
Chris Hollis GNS Science Lower Hutt
Matthew Huber Purdue University
Paul Koch UC Santa Cruz
Lee Kump Penn State University
Kirk Johnson Denver Museum of Nat. Sc.
Luca Lanci University of Urbino
Mark Leckie University of Massachussets
Lucas Lourens Utrecht University
Jack Middelburg Utrecht University
Tim Naish Victoria Univ. of Wellington
Ulysses Ninnemann University of Bergen
Mark Pagani Yale University
Heiko Pälike University of Southampton
Richard Pancost University of Bristol
Paul Pearson Cardiff University
Isabella Premoli Silva University of Milan
Isabella Raffi University of Chieti
Maureen Raymo Boston University
Gert-Jan Reichart Utrecht University
Eelco Rohling University of Southampton
Yair Rosenthal Rutgers University
Luke Skinner University of Cambridge
Stefan Schouten NIOZ
Caroline Slomp Utrehct University
Appy Sluijs Utrecht University
Jan Smit Vrije Universiteit Amsterdam
Howard Spero UC Davis
Rudy Stein Alfred Wegener Institute
Catherine Stickley Norwegian Polar Institute
Debbie Thomas Texas A&M University
Ellen Thomas Yale University
Paul Valdes University of Bristol
Anna von der Heydt IMAU Utrecht
Johan Weijers Utrecht University
Tim White Penn State University
Scott Wing Smithsonian Institution
James Zachos UC Santa Cruz
Richard Zeebe University of Hawaii at Manoa
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Università di Urbino

ECORD European Consortium for Ocean Research Drilling

IODP INTEGRATED OCEAN DRILLING PROGRAM

Darwin Center for Biogeosciences

ANDRILL

imagES

Pesaro e Urbino

ECORD
European Consortium for Ocean Research Drilling

Summer School 2011

"Subseafloor Fluid Flow and Gas Hydrates"

September 12 – 23, 2011

at the Center for Marine Environmental Sciences (MARUM), University of Bremen, Germany

Taking advantage of the **unique and integrated facilities offered by the IODP Bremen Core Repository (BCR) and the MARUM Laboratories** this summer school will combine lab exercises on IODP-style "shipboard" methodologies as well as lectures and interactive discussions on scientific drilling in fluid flow and gas hydrate environments.

The Aim

By hosting one of only three IODP core repositories in the world – the only one in Europe – the MARUM in Bremen offers a unique possibility to bring especially European PhD students and young Postdocs in touch with IODP at an early stage of their career, inform them about the actual research within this thrilling international scientific program, and to prepare them for **future participations in IODP expeditions**. Such training will be achieved by taking the summer school participants on a **"virtual ship"** where they get familiarized with a wide spectrum of state-of-the-art analytical technologies and core description methods including core logging/scanning according to the high standards on IODP expeditions.

This comprehensive approach – **combining scientific lectures with practicals on IODP-style "shipboard" measurements** – is the blueprint for a series of summer schools to be held once per year within the ECORD summer school program, each one lasting for 12 days. It is planned to address the three major topics of the IODP Initial Science Plan in a recurring three year cycle, thereby **exploiting the unique facilities in Bremen** where about 50 scientists work on the whole width of IODP-related topics, not just as (I)ODP and DSDP have been proven to be the most successful internationally collaborative research programs in the history of Earth sciences. Following Earth History topics in 2007 and 2010 (ECORD Summer Schools on "Paleoceanography" and "Dynamics of Past Climate Changes"), a Deep Biosphere topic in 2008 ("The Deep Subseafloor Biosphere"), and a Solid Earth Cycles and Geodynamics topic in 2009 ("Geodynamics of Mid-Ocean Ridges"), **we now propose a Summer School on "Subseafloor fluid flow and gas hydrates".**

http://www.glomar.uni-bremen.de/ECORD_Summer_School.html

The Topic

Water and fluids are present throughout Earth's crust and act as a primary medium of exchange between Earth's interior, lithosphere, hydrosphere and atmosphere. Several projects in marine research conducted by the Ocean Drilling Program and the Integrated Ocean Drilling Program documented a massive and dynamic plumbing system which cycles the entire volume of the ocean through the seafloor every 1-2 million years.

The Structure

The focus of the first week of the 12 day summer school is on scientific lectures (incl. some topic-related lab exercises) and discussions. "The Virtual Ship" exercise during the second week will introduce the participants to life as a shipboard scientist, introducing shipboard scientific methods and work flow during a drilling cruise investigating fluid flow and gas hydrates.

Sponsors

ECORD GLOMAR marum

Organizers

Ulla Röhl, Dierk Hebbeln, Gerhard Bohrmann, Heinrich Villinger

Registration

To apply, please send your application (letter of motivation, CV, registration form and one letter of support) **combined into one single pdf-document** per email to Jutta Bülten in the GLOMAR office ([redacted]). The registration form can be found on the webpage (see footer)

Deadline for registration: **15 April 2011**

Scholarships

ECORD offers scholarships for participation in this summer school.
Deadline for scholarship application is **25 March 2011**

IODP-Canada will be offering **scholarships** for **Canadian students** to attend the summer school.
Deadline for scholarship application is **31 March 2011**

http://www.glomar.uni-bremen.de/ECORD_Summer_School.html

ECORD
European Consortium for Ocean Research Drilling

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Time table for Week 1 of the 2011 Bremen ECORD Summer school "Subseafloor Fluid Flow and Gas Hydrates"

h	Monday Sep 12, 2011	Tuesday Sep 13, 2011	Wednesday Sep 14, 2011	Thursday Sep 15, 2011	Friday Sep 16, 2011	Saturday Sep 17, 2011
9	**Welcome & Info**	Fluid flow *cont.*	**Gas hydrate deposits**	Gas hydrates *cont.*	Gas hydrates *cont.*	
	Introduction					
10	**Fluid flow at continental margins**					
11	Fluid flow *cont.*	Fluid flow *cont.*	Gas hydrates *cont.*	Gas hydrates *cont.*	**Hydrogeology of the ocean crust**	
12						
13						
14		**PRESENT**	**ATIONS**	**BY**	**PARTICIP**	**ANTS**
15		**"Virtual Ship" Lab-intro #1 Phys. Props**	**Lab turn #1 "Virtual Ship"**	**Lab turn #2 "Virtual Ship"**	**Lab turn #3 "Virtual Ship"**	
16	**Introduction to IODP & ECORD**	**"Virtual Ship" Lab-intro #2 Core Descrip.**				
17	**IODP Core Curation**	**"Virtual Ship" Lab-intro #3 Gas Hydrates**				
18	**ICEBREAKER**					

- Topical Lectures
- Introduction to IODP
- Introduction "Virtual Ship"
- "Virtual Ship" Lab Turns in Groups
- Presentations by Participants
- "Real Ship" Experience with RV ALKOR
- Lunch & Coffee

Contents of topical lectures:

Introduction:
Subseafloor fluid flow
Gas hydrates, global relevance

Fluid flow at continental margins
Fluid flow at active continental margins
Fluid flow at passive continental margins
Mud volcanism
Cold seeps, seafloor seep structures and chemosynthetic life

Gas hydrate deposits in marine sediments
Basics in gas hydrates, gas chemistry, stability and phase boundaries
Quantification of gas hydrate in sediment cores
Deep biosphere and methane-related carbonates

Hydrogeology of the ocean crust
Ridge crest, and ridge flank hydrogeology
Thermal investigation of fluid flow and CORK experiments

Lectures and Virtual Ship instructors:

Gerhard Bohrmann, MARUM, Bremen, Germany
Sarah Davies, Leicester, UK
Jochen Erbacher, BGR, Hannover, Germany
Tom Feseker, MARUM, Bremen, Germany
Walter Hale, BCR, MARUM, Bremen, Germany
Matthias Haeckel, IFM-GEOMAR, Kiel, Germany
Dierk Hebbeln, GLOMAR/MARUM, Bremen, Germany
Achim Kopf, MARUM, Bremen, Germany
Holger Kuhlmann, BCR, MARUM, Bremen, Germany
Frank Lamy, AWI, Bremerhaven, Germany
Mahyar Mohtadi, MARUM, Bremen, Germany,
Thomas Pape, MARUM, Bremen, Germany
Michael Riedel, Montreal, Canada
Ursula Röhl, BCR, MARUM,, Bremen, Germany
Luzie Schnieders, BCR, MARUM, Bremen, Germany
Rüdiger Stein, ECORD, AWI, Bremerhaven, Germany
Erwin Suess, Oregon State University, USA
Barbara Teichert, Münster, Germany
Marta Torres, Oregon State University, USA
Heiner Villinger, Univ. of Bremen, Germany

Time table for Week 2 of the 2011 Bremen ECORD Summer school "Subseafloor Fluid Flow and Gas Hydrates"

h	Sunday Sep 18, 2011	Monday Sep 19, 2011	Tuesday Sep 20, 2011	Wednesday Sep 21, 2011	Thursday Sep 22, 2011	Friday Sep 23, 2011
9		starting 6:00 h	**Hydrogeology of the ocean crust**	Hydrogeology *cont.*	**Lab turn #5 "Virtual Ship"**	**Excercise: Writing an IODP proposal**
10		**"Real Ship" Experience with RV Alkor to the**				
11		**Eckernförde Bay pockmark field**	Hydrogeology *cont.*	Hydrogeology *cont.*		IODP proposal *cont.*
12	**Free time to explore the Hanseatic**					**WRAP UP**
13	**City of Bremen**				**Subseafloor Fluid Flow and Hydrates**	
14			Hydrogeology *cont.*	**"Virtual Ship" Lab-intro #6 Microscopy**		
15				**Lab turn #4 "Virtual Ship"**	**Lab turn #6 "Virtual Ship"**	
16			**"Virtual Ship" Lab-intro #4 Pore Waters**			
17			**"Virtual Ship" Lab-intro #5 Downhole Log.**			
18				**BARBEQUE**		

Topical Lectures

Introduction to IODP

Introduction "Virtual Ship"

"Virtual Ship" Lab Turns in Smaller Groups

Presentations by Participants

"Real Ship" Experience with RV ALKOR

Lunch & Coffee

Topics of the "Virtual Ship" Experience

Shipboard techniques for phys props; MSC-logger
Analyses of gas hydrates; autoclave tools
Core description, linescan imaging, colour scanner
Pore water acquisition and chemistry
Downhole tools and logging
Thin section microscopy of methane carbonates

Presentations by Participants

Experience shows that the participants greatly benefit from scientific discussions within the group as well as with the course instructors. The aim is that during dedicated sessions the participants will present their own research. At the end of each workshop day, we will form small break-out discussion groups. This setup will facilitate the development of common interests and personal international networks in an early stage of the individual careers. The best presentation will be awarded a prize.

Contact:

Jutta Bülten
jbuelten@marum.de
Tel. +49 (0)421 21865651
Fax: +49 (0)421 21865654

The "Real Ship" Experience

During a one-day field trip onboard RV ALKOR the submarine groundwater seeps of the Eckerförde Bay/ Western Baltic Sea close to Kiel will be visited. The submarine springs will be explored by imaging the pockmark structures using multibeam echosounder and by sampling sediments and pore waters. The importance of fluid discharge from sediments to the nutrient budget of the environment will be discussed considering the regional geological background of the western Baltic Sea since the retreat of the Fennoscandian ice sheet ~12.000 years ago.

Introduction to IODP

The IODP related topics range from general introduction to this thrilling international scientific program including the roles of ECORD and ESSAC, the history of ocean drilling, the main themes of the Initial Science Plan, insight into the Science Advisory Structure (SAS), core curation and sampling procedures, sneak preview of the new IODP program in planning and, finally, a glimpse on the compilation of IODP drilling proposals.