

n°8
April, 2007

Message from the ECORD Council Chair

CONTENTS

Cover page:
*Message from the
Council Chair*

page 2:
*Downpipe Seabed
Camera*

page 3:
ESO News

page 4:
*IODP-Canada
Workshop in
Montréal*

page 5:
News from EMA

*ECORD Educa-
tion & Outreach
Activities*

page 6-11:
ESSAC Updates

page 12:
*ECORD-Net
Updates*

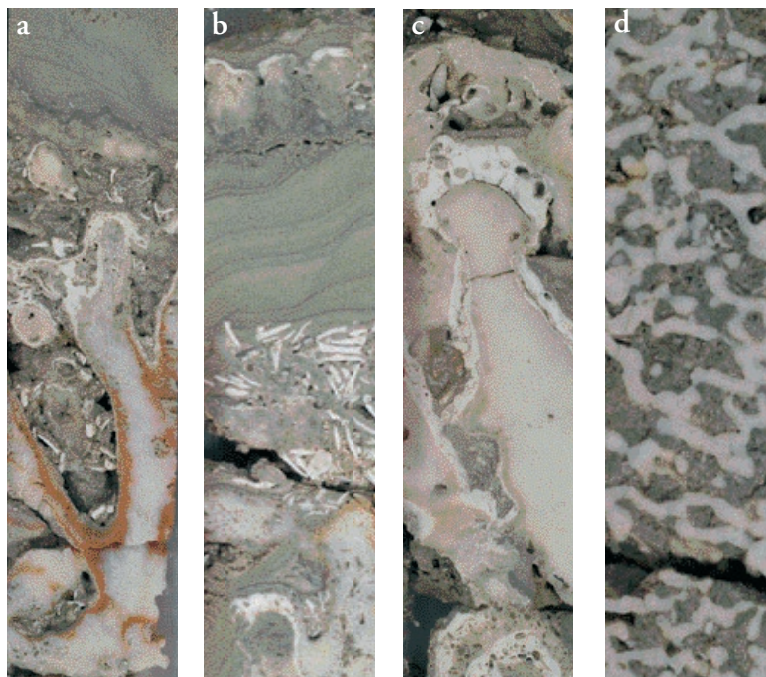
ECORD Contacts

The year 2007 is a very important one for IODP and for ECORD. Towards the end of this year, the program will come up to “full speed” when both the Japanese *R/V Chikyu* and the refurbished US *R/V JOIDES Resolution* will be available for IODP. This is accompanied by an increase in program costs, meaning that ECORD is asked to increase their contribution to IODP by more than 50%, from 14 Million USD to more than 22.4 Million USD per year. However, I have no doubt that the increase in scientific possibilities fully justifies this increase in costs. At the same time, it is not easy for any ECORD member to accommodate these significant expenses. The ECORD structure has prepared a solid foundation for positive national decisions in ECORD member countries: 1. An independent, international review of ECORD has been conducted, of which Catherine Mével reports in this issue (see page 5). 2. ECORD has increased its efforts to secure funds from the 7th Framework Programme of the European

Commission (FP7). In order to do the latter, the Deep Sea Frontier Initiative was launched, of which ECORD, the Ocean Margins community and the Sea Floor Observatories community represent the three major pillars. There is a good chance that this Initiative will receive substantial funding in the second half of FP 7. This will, however, work only if you as participating or interested scientists approach your national funding agency and express your interest in ECORD. Additionally, the funding agency officers must talk to their national delegates in the appropriate panels of the European Commission, so that ECORD finds its slot in the work programme of FP7. With a strong lobby, ECORD has all chances to further increase its weight in IODP. Your help is required to make this idea come true – no matter whether you are a scientist or a funding programme officer.

Sören Dürr, ECORD Council Chair, March 2007

Drilled cores recovered during the Tahiti Sea Level Expedition



Close-up photographs of, a, b and c, coralgal-microbialite frameworks composed of branching and columnar corals (light grey and red borders), laminated microbialites (grey) and angular Halimeda segments (white) where coral colonies are encrusted by coralline algae (white). Branching coral-line algae are shown on photo d. (All photographs are ECORD/IODP).

2 cm



Dan Evans

Downpipe Seabed Camera developed for Expedition 310 Tahiti Sea Level

In order to comply with the IODP Reef Drilling Guidelines and the ECORD Science Operator's environmental policy a downpipe camera was developed to allow the expedition to search the coral reef seabed for suitable drill sites to core, before any contact was made with the reef.



Topside Control Unit Subsea Umbilical on Reel Downhole Camera & Light

Figure 1 shows the elements of this camera system which is now available for other similar work (Photo ESO/ECORD by D. Smith).

Using a dynamically positioned (DP) drillship with a very close positioning tolerance (better than 3m radius at all times) the vessel was able to stay above the planned coring location without any anchors or other reference items being placed on the reef surface.



Figure 2. The DP Hunter, the dynamically positioned drilling platform used during the Tahiti Sea Level Expedition (Photo ESO/ECORD by I. Pheasant).

A conductor pipe for the drillstring, tipped with a drilling and re-entry template as shown in Figure 3 was then run down to a few metres above seabed and the down pipe camera lowered through the pipe to survey the scene below the template - all of this before contact was made with the seabed.

Figure 3. Views of the Drilling and Re-Entry Template (DART) which connects the ship to the seabed. The diameter of the dart cutting edge is 1.8m and the cutting edge is 30mm thick (Photos ESO/ECORD by D. Smith).



Photos recovered by the camera were then interpreted to allow consideration of the site for coring.

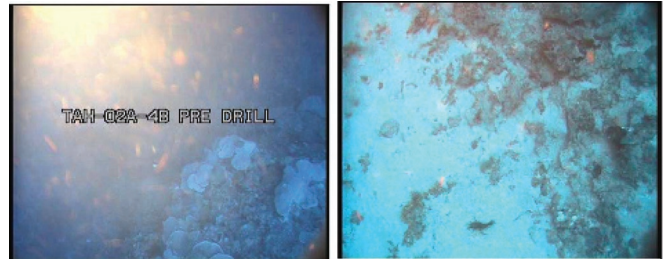


Figure 4 (left) shows an area where it was not suitable to core – live coral heads and a thriving community. The site was moved, using the camera to view and re-positioning the ship using the DP to the area shown in Figure 4 (right) (Photos ESO/ECORD).

Post drilling monitoring was also carried out to evaluate the effect of the coring on the surface of the reef. In most cases very little, if anything, could be seen, in others the 'drilling imprint' of the seabed template and the physical core hole could be seen, possibly with some of the coral 'cuttings' produced when the core bit cut into the reef material.



Figure 5 (left) shows the acceptable seabed pre-drill image. Figure 5 (right) shows the area after coring has taken place and shows the white ring of the template cutting edge and the dark area of borehole within it (Photos ESO/ECORD).

The camera has allowed a very quick and efficient method of evaluating the seabed conditions prior to coring, and also to record the post-coring effects when the site is abandoned. Because of the precise corehole positioning it is also possible to conduct longer term evaluations of the site should this be required as the post coring photos can be compared with others taken by divers, ROV's etc. at a later date.

Further details can be obtained from the ECORD Science Operator at www.eso.ecord.org.

Alister Skinner, ESO Operations Manager and Dave Smith, British Geological Survey Marine Operations and Engineering.

ECORD Science Operator News

ECORD Science Operator delegation visits Australia to prepare for IODP drilling.

In mid-February 2007, the ECORD Science Operator (ESO) held a meeting in Townsville, Queensland with the Great Barrier Reef Marine Park Authority in order to initiate the permitting process for IODP drilling on the Great Barrier Reef (GBR). ESO was represented by Alister Skinner (Operations Manager) and Dan Evans (Science Manager), who were accompanied by Jody Webster of James Cook University, who was a scientist on the Tahiti Sea Level Expedition and is leading the site survey work for the GBR expedition. Also at the meeting was David Falvey, who is now Executive Director for Physics, Chemistry & Geoscience at the Australian Research Council. The meeting was successful and ESO is now moving ahead with its application for drilling, hopefully to take place during the September-November weather window of 2008.



Great Barrier Reef - Image credit: NASA/GSFC/LaRC/JPL, MISR Team.

While in Townsville the delegation also began its local outreach campaign by visiting the North Queensland Conservation Council and the Australian Institute for Marine Science. Australian scientists are continuing their determined efforts to enable them to gain membership of IODP, and it is hoped that the GBR expedition will aid this process.

The objectives of the proposed GBR expedition are linked to the Tahiti Sea Level Expedition that took place during 2005, as both involve the study of reef settings that are located in tectonically inactive areas that are far away from glaciated regions. In areas such as these, there is potential to obtain detailed information about sea-level change during the period 20,000 to 10,000 years ago, when ice covered large areas of the northern hemisphere.

Geotechnical survey of the New Jersey Shallow Shelf Expedition has started.

The preparatory work for this expedition continues and a contract for the seabed survey and geotechnical work preparatory to contracting any potential jack-up type platform should be underway in the week commencing 26th March. Alpine Ocean Seismic Survey Inc. have been contracted by BGS on behalf of

ECORD to undertake sidescan sonar, boomer, magnetometer and vibrocoreing over the areas of the expedition core sites. This will allow foundation and environmental parameters to be evaluated and forwarded to the preferred drilling contractor for rig evaluation. Assistance in this geotechnical programme is being given by the New Jersey State Geological Survey who provided seabed data which helped refine the contract specification and who will be participating in the offshore survey work. Rutgers University will also assist by analysing subsamples of the vibrocores for C1-C5 gas to meet a baseline requirement for the IODP Environment, Pollution and Safety Panel.

Following this survey additional geotechnical work may still be required and this is currently the subject of other discussions. An operational meeting was held at Rutgers University on 20-21st March with expedition participants and the preferred drilling contractor in order to evaluate anticipated lithologies and known onshore drilling problems from similar formations. An operational plan for casing, coring and logging was determined and will be refined over the ensuing weeks. It is anticipated that all contracts will be in place to allow a mid-June start to the scientific part of the expedition and planning for this is well underway.

Information about the New Jersey Shallow Shelf Expedition 313 is available at:

www.eso.ecord.org/expeditions/313/313

ESO has a new website and a new logo.

At the end of 2006, the ECORD Science Operator (ESO) launched its new website, which can be accessed through the ECORD web portal (www.eso.ecord.org). The ESO website hosts all information related to mission-specific platforms (MSPs), such as the role of MSPs within the IODP structure and the important function of the Onshore Science Party that follows each expedition. The website has a page for each MSP expedition, where general information about the objectives and participating scientists can be found, as well as links to the scientific publications and reports. During the forthcoming New Jersey Shallow Shelf Expedition, regular progress reports will be available on the ESO website. To coincide with the launch of the new website, the ESO logo has been re-designed to incorporate the ECORD logo.



Alister Skinner, ESO Operations Manager, Dan Evans, ESO Science Manager and Alan Stevenson, ESO Outreach Manager.

IODP - Canada Workshop in Montréal

A workshop sponsored by the Canadian Consortium for Ocean Drilling (CCOD) was held February 23-24, 2007 in Montréal.

It was hosted jointly by the Montréal Earth Observatory (MEO), the GEOTOP-UQAM-McGill Research Centre, and the Department of Earth and Planetary Sciences of McGill University, and organised by Anne de Vernal (GEOTOP-UQAM), Michael Riedel (McGill), and H el ene Gaonac'h (MEO & GEOTOP).

The objectives of the workshop were (1) to inform the Canadian Scientific Community about research opportunities within the Integrated Ocean Drilling Program (IODP), (2) to provide a summary of the IODP science themes and the new capabilities of IODP as a three-platform program, (3) to present highlights of the first phase of IODP drilling, and (4) to identify Canadian priorities for ocean drilling expeditions and develop a strategy for the preparation of IODP proposals.

About fifty participants from the east to west coasts of Canada attended the workshop, in addition to representatives from the management bodies of IODP and the European Consortium for Ocean Research Drilling (ECORD) to which Canada is affiliated. Kathy Gillis (U. Victoria), chair of the CCOD (*encircled in Photo 1*), opened the workshop and presented a historical perspective of the Canadian participation to ODP



and IODP. Greg Myers (IODP) presented the state-of-the-art technology for coring, drilling and sampling on IODP platforms with special emphasis on the riser vessel and CORK technology. Catherine M evel and Beno t Ildefonse from ECORD presented the overall structure of the European Consortium, an overview

of the scientific themes of IODP, and the structure of IODP as it relates to drilling proposals.



Several presentations highlighting the results of the first phase of IODP were made. Michael Riedel presented results of IODP Expedition 311 "Cascadia Margin Gas Hydrate" and NEPTUNE. Neil Banerjee (Western Ontario) gave an overview of drilling expeditions into the lower ocean crust (cf. Science 312: 1016-100, 2006). Anne de Vernal reported on the ongoing work on the Pleistocene records of the North Atlantic expedition 303/306 aiming at recovering high resolution climate records. Jens Matthiessen (AWI, Germany) presented some highlights of the Arctic Coring Expedition 302 (*Photo 2*) and mentioned proposal in preparation for further expeditions in the Arctic Ocean. Finally, Ulrich Wortmann (U. of Toronto) presented

prospective areas of research for deep biosphere investigation from drilling with IODP technology and Jacques Locat (U. Laval) addressed the question of geohazards.



Core inspection aboard the icebreaker Oden, Jens Matthiessen (left) and Alexander Krylov (photo ECORD/IODP).

The second day started with a discussion of how to prepare a successful IODP proposal. This was followed by general discussion and break-out groups, in the theme areas of Gas Hydrates, Paleocyanography, and Solid Earth Cycles, aimed at identifying opportunities for participation in the development of new and current proposals, and the research priorities and opportunities of the Canadian community within IODP.

Kathy Gillis, Anne de Vernal, Michael Riedel & H el ene Gaonac'h (IODP Canada)



Catherine Mével

News from the ECORD Managing Agency

IODP is about to enter its second phase. In 2008, the three platforms will be operating simultaneously, to the benefit of the science community. However, as explained by the Council chair in his message (*see cover page*), this will result in a major increase in the cost of the program. To assist member organisations in the process of increasing their contribution, the Council decided to carry out an ECORD-wide evaluation of the benefits to the consortium of participation in IODP. A committee composed of independent experts was set up in the spring of 2006 and worked throughout the summer and the fall. The ECORD evaluation committee has now accomplished its task. A first draft of the report was presented to the ECORD Council at its last meeting in November, and the report was published in January 2007. Overall, this report is very positive. The findings are summarised in these two concluding remarks : “During a period when both *JOIDES Resolution* and *Chikyu* were unavailable for IODP it has fallen to ECORD through MSPs to implement the scientific objectives of ocean drilling. The resounding scientific success and new understanding of climate change issues which were obtained from both ACEX and Tahiti are testimony to the important role which it plays within the IODP structure.” “ECORD and its associated scientists are producing high-quality, international research in ocean science. It clearly represents

excellent value for money and although we can see potential issues with the somewhat cumbersome management structure we find it to be an outstanding example of good international cooperation. We would wish to see funding continue for it and would very much welcome further approaches to EU Framework 7 for additional support for what is clearly an essential component in understanding the critical processes of climate evolution, the deep biosphere and geodynamics.”

The report also points out some weaknesses in the ECORD organisation. These remarks are taken very seriously by the Council. Possible avenues for improvement are being discussed and should result in actions in the near future.

In conclusion, the clear documentation of the major input of ECORD scientists and operator on IODP will be extremely useful to ECORD member organisations. I express Council’s appreciation to the members of the external evaluation committee for their time and dedication to deliver an extremely valuable report.

Catherine Mével, EMA Director

ECORD member countries: Austria, Belgium, Canada, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom

ECORD Education and Outreach Activities

IODP E&O Task Force

The ECORD Outreach team met up with their Japanese and US colleagues at the IODP E&O Task Force meeting held in Bremen in October 2006. Due to the number of expeditions scheduled during 2007-2008, the meeting focused mostly on the outreach and communications plans of the New Jersey Shallow Shelf expedition (implemented by the ECORD Science Operator-ESO) and the five expeditions of the NanTroSEIZE project (implemented by the Center for Deep Earth Exploration-CDEX and the US Implementing Organization-USIO).

Education

Eve Arnold will convene seventy European teachers at the ECORD Teachers Workshop to be held during EGU 2007 in Vienna. The goal of the ECORD Workshop is to provide teachers with information and material that can be used to enhance science classes for school students and to illustrate the excitement found in ocean research drilling. Scientific talks designed specifically for school teachers by leading IODP scientists highlight selected ocean drilling research topics important for humanity (such as gas hydrates, natural hazards and natural climate variations). The workshop also provides teachers with background speeches introducing the IODP drilling vessels and IODP-ECORD web sites tutorials.

In addition to this workshop, ESSAC sponsors and organises two ECORD Summer Schools, one in Urbino, Italy and the other in Bremen, Germany (*see pages 6 & 10*) and the ECORD Distinguished Lecturers Programme (*see page 8*).

ECORD on-line

Education and Outreach activities have been reorganised with new topics accessible from the homepage of the ECORD web site including:

- ◆ **Education** - All activities for students and teachers
- ◆ **Press & Media** - Press releases, Media conferences and Press coverage of the ECORD activities,
- ◆ **Promotional materials** - all ECORD publications and events promoting ECORD.

ECORD on-line contacts:

- ◆ ESSAC - ESSAC Office, essac@Cardiff.ac.uk,
- ◆ ESO, Alan Stevenson - agst@bgs.ac.uk,
- ◆ EMA, Patricia Maruéjol - maruejol@crpg.cnrs-nancy.fr.

Promotional Events

A Townhall meeting is jointly organised by ICDP and IODP at the European Geosciences Union General Assembly 2007-EGU 2007, on Tuesday 17 April (*see page 10*).

ECORD will attend the opening conference of the International Year of Planet Earth at UNESCO Headquarters in Paris, October 2007.

You are welcome to meet the ECORD Outreach team at the ECORD/IODP booth during EGU 2007 - 16-20 April, in Vienna and to take copies of the newest IODP-ECORD publications.

ECORD Outreach team: Eve Arnold, ESSAC, Albert Gerdes & Alan Stevenson, ESO, and Patricia Maruéjol, EMA



Chris MacLeod

ECORD Science Support & Advisory Committee Updates



Elspeth Urquhart

The ESSAC Office team have had a very busy 6 months since the last newsletter in October and with the anticipated schedule of a fully operational 3-platform programme by early 2008 we expect to be even busier.

Workshops

In the latter months of 2006 five very successful workshops were held: *Scientific Ocean Drilling behind the Assessment of Geohazards from Submarine Slides*, in Barcelona, Spain; *Drilling through an Active Caldera, offshore Campi Flegrei, Eastern Tyrrhenian Margin*, in Naples, Italy; *Capturing a Salt Giant*, in Hamburg Germany - all part of the ESF Magellan Workshop Series, *Exploring Sub-Seafloor Life with the Integrated Ocean Drilling Program*, in Vancouver, Canada, part of the IODP International Workshops, and *Climate-Tectonic Drilling Studies in Southeast Asia*, an IODP-InterMARGINS workshop. Some report summaries for these are included below and all the full reports will be posted on our website at www.essac.ecord.org/pastworkshops as soon as they are available. Workshops that have been organised this summer so far include *Large Igneous Provinces* in Coleraine, Northern Ireland, and *Addressing Geohazards through Ocean Drilling*, in Portland, Oregon, USA both IODP International Workshops (www.essac.ecord.org/workshopupcoming) and three workshops from the Magellan Workshop Series (see table page 10).

Perhaps you are thinking of running your own workshop? If so, please contact the ESSAC Office essac@Cardiff.ac.uk, and submit your workshop proposal anytime. If you're not thinking of running your own workshop (no confidence, too young, too

much hard work) then please think about attending some of the upcoming workshops mentioned above. If you want to go but don't have the funds you can apply for support through www.iodp.org or contact us at the ESSAC office as we have occasional funding schemes for workshop attendance.

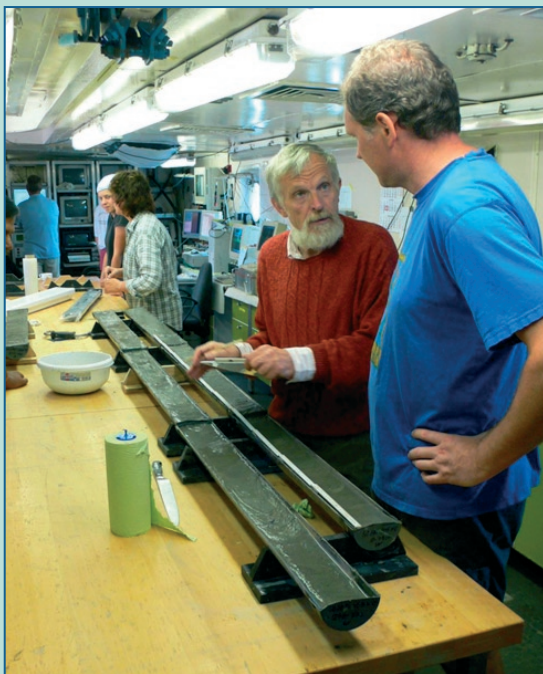
Expeditions

There have been two calls during the last 6 months, one for the **NanTroSEIZE** expeditions and one for the **Equatorial Pacific** expeditions. We were very pleased with the amount of interest in participating and the quality of the applications to date, however we do still need more help with a few areas of expertise. For example, we need more palaeoceanographic expertise for the NanTroSEIZE expeditions, so do not hesitate to tell us if you would like to participate. This year the **New Jersey Shallow Shelf Expedition 313** will begin in mid summer. We also anticipate a call for the **Bering Sea** expedition very soon. Publications from past expeditions 301-312 are available online at www.iodp.org/scientific-publications.

ECORD Scholarships for summer schools

As you can imagine we were swamped with applications for ECORD scholarships.... and very pleased we were too. It's very encouraging to know that so many people want to attend. Attendance at summer school is a very expensive exercise and we are very grateful to the ECORD Council for providing the ten €1000 awards. The successful applicants are:

(to continue on page 8)



Hermann Kudrass aboard the R/V Sonne, discussing with Carsten Rühlemann, during a cruise in the Bay of Bengal (SO-188) in July 2006.

Hermann Kudrass is retiring from ECORD.

In June 2005 Hermann-Rudolf Kudrass retired from his IODP & ECORD activities. Herrud, better known as 'Herman the German' within the ocean drilling community, studied at the Universities of Freiburg and Kiel, where he attained his PhD in Geology under the supervision of Eugen Seibold. In the early seventies he received a position at the Marine Geology Department of the Federal Institute for Geosciences and Natural Resources (BGR) in Hanover. This was the starting point for a number of projects and sometimes rather adventurous expeditions, leading Hermann to several remote niches of our planet. Heavy mineral sands off Malaysia and Mozambique; gold off New Zealand; phosphates off Peru; the history of monsoon in the Bay of Bengal; geology of the South China Sea and teaching UNESCO courses in several developing countries are just some milestones in his very colourful scientific career. Hermann's first contact to ODP was in the late eighties when he served on the South Pacific Panel. Later, he became a member of the ODP Scientific Committee and Executive Committee. Hermann succeeded Helmut Beiersdorf as the coordinator of ODP-Germany in 2001, during the transition from ODP to IODP. Among his greatest credits certainly is the solid membership of Germany within ECORD, which he achieved in 2004. Within IODP, Hermann served in SPPOC and was a member of ESSAC. Leaving ESSAC in 2005 was the last step of a gradual process of Hermann's retirement from IODP, showing how important the European component of IODP is to him. Although Hermann is leaving his role in the IODP community, he has not retired yet, since 2005 he is the Head of the Division Geophysics, Marine and Polar Research at BGR.

Jochen Erbacher, ESSAC Alternate and IODP Deutschland coordinator.

Workshop Reports

Workshop for Climate-Tectonic Drilling Studies in Southeast Asia - An IODP-InterMARGINS Workshop

5–7th June 2006, Kochi Core Center (KU/JAMSTEC), Kochi, Japan. - Funded by JAMSTEC, JOI, J-DESC and InterMARGINS

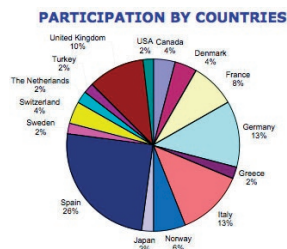
Interactions between the tectonic evolution of the solid Earth and the planet's climate system have been recognized, yet are presently only understood in outline. The Asian monsoon – Himalaya-Tibetan Plateau system appears to be one of the most dramatic examples of such interactions and is ideally suited for deconvolving and unraveling the coupling that can occur between high topography and the climate system. Climate models suggest a strong linkage between Tibetan altitude and the strength of the monsoon. However, these models are largely untested. A meeting was held 5–7th June 2006 in Kochi, Japan, to discuss marine and terrestrial geoscience research on the subject of climate-tectonic studies focused in SE Asia. The meeting summarized recent research advances in the field and recommended the coordination of research activities across the region, particularly in the context of the Integrated Ocean Drilling Program (IODP). SE Asia is particularly well suited to this type of work because the Asian monsoon is strong and the rivers of the region incise the edge of the Tibetan Plateau. As a result surface uplift of Tibet drives increased erosional flux to the sea. Recent advances in the science of climate-tectonic coupling include new evidence for the monsoon experiencing a series of steps in intensification, possibly dating back to the Early Miocene ~25 Ma. Furthermore, while central Tibet appears to have been relatively high possibly back to >30 Ma, the NE and SE edges appear to have been elevated only since 10 Ma. Phases of plateau uplift or climate change must generate erosional pulses that are delivered to the deltas of the marginal seas, where they can be sampled and quantified. The importance of drilling in the Song Hong-Yinggehai Basin was recognized as an important step to testing models for climate change in East Asia. However, the erosional pulses observed can only be interpreted if the uplift and exhumation histories of the sources in SE Tibet can be reconstructed in detail and if variations in monsoonal climate can also be dated. Because of variations in the nature of the monsoon across Asia, and because the source rivers have interacted with each other in the past, drilling in the Red River fan-delta alone will be insufficient to address the science goals of the community. The meeting called for coordinated drilling in the Sea of Japan, in the East China Sea and in the Mekong delta, which in turn must be linked to related programs on the Indus and Bengal Fans in the Indian Ocean. Ocean drilling will need to be supplemented in key regions by continental coring operations, with the Hanoi Basin, the Jiangnan and Subei Basins of the Yangtze River, and smaller sedimentary basins in SE Tibet particularly highlighted. Success in our scientific goals will require close collaboration between scientists in IODP member countries and those based in the region of operation.



Peter Clift, University of Aberdeen, UK, and Wonn Soh, JAMSTEC, Japan.

Scientific Ocean drilling behind the assessment of geo-hazards from submarine slides ESF Magellan Workshop Series

25–27th October 2006, Barcelona, Spain



Fifty scientists and representatives of private companies, mainly from the European area (*see figure, left*), representing a wide spectrum of disciplines such as geophysics, stratigraphy, sedimentology, paleoceanography, marine geotechnology, geotechnical engineering, tsunami modelling, attended the workshop. During the workshop, it was agreed that submarine slides represent a geohazard for their destructive potential on seabed structures, for their tsunamigenic potential, and for their capability of methane gas release into the seawater and atmosphere. Scientific drilling offers a possibility to answer a number of scientific questions and test at least two existing hypotheses on basic mechanisms of submarine slides generation and of massive releases of gas. Both mega slides and smaller size slides should be addressed by drilling where slope instability is recognized as a recurrent phenomenon in the stratigraphic succession. Not only sediments that have failed should be studied, but also sediments that are presently undergoing deformation and un-failed slopes should be addressed. The drilling strategies should include classical stratigraphic drilling, dedicated geotechnical drilling, and installation of borehole observatories as well as seafloor observatories.

The outcomes of the workshops are close contacts with other ongoing international initiatives on submarine geo-hazards, and in particular with the organisation of the IODP-MI Geologic Hazards workshop held in summer 2007 (*see page 10*). An IODP pre-proposal is to be submitted in April 2007 to address a suite of medium size submarine slides in different geological environments.

Angelo Camerlenghi, Roger Urgeles, University of Barcelona, Spain, and Gemma Ercilla, ISM-CSIC with contributions from workshop participants

(came from page 6) Isabelle Gil, INETI, Portugal; Beatriz Gonzalez-Mora, University of Salamanca, Spain; Joerg Lippold, Heidelberg, Germany; Diana Magens, Alfred-Wegener Institute, Bremerhaven, Germany; Aoife O'Halloran, Trinity College Dublin, Ireland; Verity Payne, University of Leeds, UK; Jennie Perkins, Open University, UK; Deborah Skilliter, Dalhousie University, Canada; Iana Tsandev, University of Utrecht, Netherlands, and Henna Valppu, University of Oulu, Finland. If you were unsuccessful this time we would say before don't give up, apply to other sources, and apply to us again the next time". Most importantly, unsuccessful applicants should not be discouraged as the quality of applications is extremely high and competition is very fierce. We only wish we had more awards to distribute. Didn't know anything about the scholarship awards? You haven't been logging on to our website (www.essac.ecord.org) or you are not on our mailing list. To subscribe to the mailing list log on to the web site and take a few minutes to fill in a form at www.essac.ecord.org/subscribe. It's free and if you change your mind you can always unsubscribe.

Distinguished Lecturers Programme

Following the huge success of the United States Distinguished Lecturer Series we are starting our own European Programme. ECORD Council have generously agreed to fund this venture

and have provided a budget for travel expenses for the lecturers. We are starting cautiously with a pilot run of just 3 lectures during 2007-2008, but we hope to expand the numbers rapidly. If you would like to host one of these lectures in your institution please let us know as soon as possible (*see the advertising notice below*). If you would like to give a lecture, i.e. be a "Distinguished Lecturer" yourself, or would like to nominate someone else then we are currently accepting applications for the 2008-2009 programme. For full details on how to be a host, how to be a lecturer, this year's titles and more see the advertising notice below or log on to www.essac.ecord.org/dlp.


...and finally

The inertia trap (deeper and more dangerous than the Moho) – don't fall in. ESSAC would like to hear your views about everything IODP related, what's good, what's bad, what can be improved?

It is all about communication, tell us, tell us, tell us. Don't assume we can't do anything so therefore it's not worth it etc. Perhaps we can't, but we will try – and just maybe, with your help we can change things. We are here and we are listening at essac@cardiff.ac.uk.


Chris MacLeod, ESSAC chair and Elspeth Urquhart, ESSAC science co-ordinator


The ECORD Distinguished Lecturers Programme




ECORD invites you to Host a Lecture



Applications to host a Distinguished Lecturer are accepted from any college, university or non-profit organisation in ECORD member countries

 **Dr Benoît Ildefonse** Université Montpellier, France.
Building the crust at mid-ocean ridges: the scientific ocean drilling perspective
IODP Theme: Solid Earth Cycles and Geodynamic

 **Dr Judith McKenzie** Institute of Geology, ETH Zürich Switzerland.
Exploring the Deep Biosphere beneath the seafloor with the scientific ocean drilling
IODP Theme: Deep Biosphere and Subseafloor Ocean

 **Dr Paul Wilson** School of Ocean & Earth Science, National Oceanographic Centre, Southampton, UK.
Palaeo-greenhouses and Palaeo-icehouses: Understanding changes in global climate - the last 100 million years.
IODP Theme: The Processes and Effects of Environmental Change

Apply by email to essac@cardiff.ac.uk
More information at:
<http://www.essac.ecord.org/>

How to apply to host a lecture.

Applications to host a Distinguished Lecturer are accepted from any college, university, or nonprofit organization in ECORD member countries (see list of members countries below). Apply by email to essac@cardiff.ac.uk and include the name, address, telephone number and email address of a contact person. Please coordinate your application with other members of your department, and be sure to list more than one choice of speaker — this provides more flexibility in scheduling and increases your institution's chance of hosting a lecture. The ESSAC Office will then liaise directly with you to decide a suitable date and help determine the best pairing of speaker and institution. ECORD funding will cover the speaker's transportation expenses; host institutions are asked in turn to provide local transportation, housing, and meals for the speaker. Only one lecture per institution will be funded.

ECORD Member Countries:
Austria, Belgium, Canada, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

Photo credits: From top to bottom, The Chikyū sails the seas (© JAMSTEC), Transit from I/V Oden to the drillship Vidar Viking during the IODP Arctic Coring Expedition (photo ECORD/IODP), 3D map of the drill sites within the Lomonosov ridge - IODP Arctic Coring Expedition (photo ECORD/IODP), the JOIDES Resolution drillship (photo ODP).

ECORD scientists participate in the drilling ship *CHIKYU*'s shakedown cruises - IODP to drill the earthquake zone off Japan.

Achim Kopf from RCOM Bremen, Germany, Christian Wilson from BGS Edinburgh, U.K. and Siegfried Lallemand from Université de Cergy, France, were amongst the scientists selected to participate.



Achim Kopf watching drilling operations aboard the Chikyuu during the shakedown cruise for NanTroSEIZE (photo IODP by P. Gaillot).

This summer, the shakedown cruise for the most ambitious geoscientific project on Earth, called NanTroSEIZE, started. In a multidisciplinary approach over several years, geoscientists from largely Europe, the USA, and Japan prepared to approach their main objective: to use the new research vessel *CHIKYU* (see below) to drill ca. 6 km beneath the seafloor into the zone where earthquakes generate. The project's first step took place in late summer 2006 when the lead scientists began to participate in the initial drilling and laboratory work. Achim Kopf, a professor of Marine Geotechnics at RCOM Bremen, was the first European scientist to take part in the shakedown expedition. During the cruise, the crew conducted test drilling to a depth of ca. 2000 meters below the seafloor at a site east of Japan's Shimokita Peninsula.

The project, Nankai Trough Seismogenic Zone Experiment (NanTroSEIZE - www.iodp.org/NanTroSEIZE), is a multidisciplinary study of the dynamic plate interaction in southwest Japan, an area that regularly experiences large earthquakes and earthquake-generated landslides and tsunamis. In order to increase the understanding of such hazardous processes, a transect of deep drill holes will be put in over the next few years. Many of the boreholes will be equipped with state-of-the-art instrumentation to measure crucial physical parameters, some at depths of up to 6 km

beneath the seafloor. These instruments can be used for earthquake warning when connected to seafloor cabled observation systems. Within the framework of the IODP, the NanTroSEIZE project is expected to begin its first research stage in the autumn of 2007. Multiple expeditions and stages are scheduled (see details below) and will involve hundreds of scientists, engineers and assistants from all over the world.

CHIKYU is the first scientific ocean drilling ship equipped with a riser system that makes it possible to drill to depths up to 7,000 meters below the ocean floor into pressurized, highly unstable rocks. Scientists plan to use the ship to drill directly into the plate boundary zone between the Philippine Sea Plate and the Eurasian continent. This was previously not possible because the so-called seismogenic zone was too deep for other drill ships to reach. With the riser system, deviated holes for instrument packages are possible even in complex geological settings like the one offshore Japan.

Achim Kopf, co-chief scientist of the NanTroSEIZE USIO Expedition #1



(C)JAMSTEC/CDEX

EXPEDITION STAGES OF THE NANTROSEIZE PROJECT

Expedition CDEX #1 (*Chikyuu*) - Logging While Drilling (LWD) at all the Stage 1 sites. M. Kinoshita (IFREE/JAMSTEC), H. Tobin (Univ. of Wisconsin-Madison)

Expedition CDEX #2 (*Chikyuu*) - Shallow branching faults and tectonostratigraphy of the Kumano forearc basin. J. Ashi (Univ. of Tokyo) S. Lallemand (Univ. of Cergy-Pontoise)

Expedition CDEX #3 (*Chikyuu*) - Coring of the incoming sediments and prism toe. G. Kimura (Univ. of Tokyo) & E. Screaton (Univ. of Florida)

Expedition USIO#1 (*SODV*) - Subduction Inputs, Achim Kopf (Bremen University) & Michael Underwood (Univ. of Missouri)

Expedition USIO#2 (*SODV*) - Kumano Basin Observatory - Demian Saffer (Penn. State University) & Won Soh (KCC/JAMSTEC).

(More information about the schedule can found at: www.iodp.org/expeditions)

Meeting Announcements

FORTHCOMING WORKSHOPS:

- ◆ Exploring Escarpment Mud Mount Systems and Mud Volcanoes with New European Strategies for Sustainable Mid-Depth Coring - Magellan Workshop Series, 10-13 May 2007, Rome, Italy (Convener: Sylvia Spezzaferri, silvia.spezzaferri@unifr.ch).
- ◆ Large Igneous Provinces Workshop - IODP-MI Workshop, 21-26 July 2007, Coleraine, Northern Ireland.
- ◆ Addressing Geologic Hazards Through Ocean Drilling Workshop - IODP-MI Workshop, 26-30 August 2007, Portland, Oregon, USA.
- ◆ Marine Impacts and Environmental Consequences - Magellan Workshop Series, 10-13 September 2007, Oslo, Norway (Convener: Henning Dypvik, henning.dypvik@geo.uio.no).
- ◆ Southern African Climates, Agulhas Warm Water Transport and Retroflexion and Interocean Water Exchanges - Magellan Workshop Series, 19-21 September, Kiel, Germany (Convener: Ian Hall, hall@cardiff.ac.uk).

WEB LINKS:

ESF-Magellan Workshop Series: www.esf.org/magellan

IODP-MI Workshops: www.iodp.org/workshops/

INTERNATIONAL CONFERENCES:

- ◆ European Geosciences Union General Assembly - EGU 2007, 15-20 April 2007, Vienna, Austria.
- ◆ EurOceans 2007, 22 June 2007, Aberdeen, Scotland, UK. www.eurocean2007.com/
- ◆ Rift to Ridge '07, 28-29 June 2007 - National Oceanography Centre, Southampton, UK. A workshop dedicated to North Atlantic rift - drift evolution under the influence of the Iceland Hotspot. www.noc.soton.ac.uk/gg/rift_ridge07/
- ◆ International Union of Geodesy & Geophysics XXIV, 2-13 July, 2007, Perugia, Italy. www.iugg2007perugia.it/
- ◆ IODP Topic Symposium - North Atlantic and Arctic Climate Variability, 15-16 August 2007, Bremen, Germany.
- ◆ Submarine mass movements and their consequences - UNESCO-IGCP 511, 1-3 October 2007, Santorini, Greece. www.ncmr.gr/submarinemove2007

OTHERS EVENTS:

- ◆ EGU 2007 Vienna: IODP-ECORD booth (#40-41), 16-20 April 2007, Joint ICDP-IODP Townhall meeting, Tuesday 17 April 2007, 19:00-20:00 (Room 13). www.ecord.org/pi/egu07
- ◆ ECORD Summer schools: Urbino Summer School in Paleoclimatology, 18 July-3 August, Urbino, Italy & ECORD Summer School on Paleoceanography, 13-24 August 2007, Bremen, Germany. www.ecord.org/edu/summerschool
- ◆ Unesco Conference - International Year of Planet Earth, Paris, October 2007.

Submit a proposal ?

next submission deadline: **October 1, 2007**

How to Participate ?

Further information on ESSAC at:

www.ecord.org


IODP
 INTEGRATED OCEAN
 DRILLING PROGRAM

Science Advisory Structure
ECORD Representatives on IODP Committees and Panels

Engineering Development Panel (EDP)			Environmental Protection and Safety Panel (EPSP)		
Roland Person	France	roland.person@ifremer.fr	Michael Enachescu	Canada	michaele@mun.ca
Maria Ask	Sweden	maria.ask@ltu.se	Philippe Lapointe	France	philippe.lapointe@total.com
Lothar Wohlgemuth	Germany	wohlgem@gfz-potsdam.de	Bramley Murton	UK	bjm@soc.soton.ac.uk
John Thorogood	UK	john.thorogood@uk.bp.com	Dieter Strack	Germany	ddhstrack@aol.com
Scientific Technology Panel (STP)			Site Survey Panel (SSP)		
Christophe Basile	France	christophe.basile@ujf-grenoble.fr	Christoph Gaedicke	Germany	gaedicke@bgr.de
Georges Gorin	Switzerland	georges.gorin@terre.unige.ch	Gilles Lericolais	France	gilles.lericolais@ifremer.fr
Mike Lovell (chair)	UK	mike.lovell@le.ac.uk	Holger Lykke-Andersen	Denmark	hla@geo.au.dk
Warner Brückmann	Germany	wbrueckmann@ifm-geomar.de	Roger Searle	UK	r.c.searle@durham.ac.uk
Science Planning Committee (SPC)			Industry-IODP Science Program Planning Group (IIS PPG)		
Jan Behrmann	Germany	jbehrmann@ifm-geomar.de	Richard Davies	UK	richard.davies@durham.ac.uk
Gilbert Camoin	France	gcamoin@cerege.fr	Harry Doust	Netherlands	harrydoust@hotmail.com
Chris MacLeod	UK	macleod@cardiff.ac.uk	Didier Hubert Drapeau	France	didier-hubert.drapeau@total.com
Rolf Birger Pedersen	Norway	rolf.pedersen@geo.uib.no	David Roberts	UK	d.g.roberts@dsl.pipex.com
Science Steering and Evaluation Panel (SSEP)			Hotspot Geodynamics Detail Planning Group (HG DPG)		
Jan Backman	Sweden	backman@geo.su.se	Nicolas Arndt	France	nicolas.arndt@uij-grenoble.fr
Achim Kopf	Germany	akopf@uni-bremen.de	Kaj Hoernle	Germany	khoernle@ifm-geomar.de
Frédérique Eynaud	France	f.eynaud@epoc.u-bordeaux1.fr	Bernhard Steinberger	Norway	bernhard.steinberger@ngu.no
Bénédicte Menez	France	menez@ipgp.jussieu.fr	Science Advisory Structure Executive Committee (SASEC)		
Jens Konnerup-Madsen	Denmark	jenskm@geol.ku.dk	Michael Bickle	UK	mb72@esc.cam.ac.uk
Rüdiger Stein (co-chair)	Germany	rstein@awi-bremerhaven.de	Gerold Wefer	Germany	gwefer@marum.de
Timothy Elliott	UK	tim.elliott@bris.ac.uk			
Heiko Pälke	UK	heiko@noc.soton.ac.uk			

ESSAC Delegates and Alternates

Country	Delegate	Alternate
Austria	Werner E. Piller werner.piller@uni-graz.at	Michael Wagreich michael.wagreich@univie.ac.at
Belgium	Rudy Swennen rudy.swennen@geo.kuleuven.ac.be	—
Canada	Kathryn Gillis kgillis@uvic.ca	Dominique Weis dweis@eos.ubc.ca
Denmark	Paul Martin Holm paulmh@geol.ku.dk	Paul Knutz knutz@geol.ku.dk
Finland	Kari Strand kari.strand@oulu.fi	Annakaisa Korja annakaisa.korja@seismo.helsinki.fi
France (vice-chair)	Gilbert Camoin gcamoin@arbois.cerege.fr	Benoit Ildefonse benoit.ildefonse@dstu.univ-montp2.fr
Germany	Hans Brumsack brumsack@icbm.de	Jochen Erbacher j.erbacher@bgr.de
Iceland	Bryndís Brandsdóttir bryndis@raunvis.hi.is	Guðrún Helgadóttir gudrun@hafro.is
Ireland	Brian McConnell brian.mcconnell@gsi.ie	David Hardy david.hardy@gsi.ie
Italy	Marco Sacchi marco.sacchi@iamc.cnr.it	Elisabetta Erba elisabetta.erba@unimi.it
Netherlands	Henk Brinkhuis h.brinkhuis@uu.nl	Lucas Lourens llourens@geo.uu.nl
Norway	Rolf Birger Pedersen rolf.pedersen@geo.uib.no	Nalan Koc nalan.koc@npolar.no
Portugal	Fatima Abrantes fabrantes@pro.softhome.net	Luis F. Menezes Pinheiro lmp@geo.ua.pt
Spain	Menchu Comas mcomas@ugr.es	Victor Diaz del Rio diazdelrio@ma.ieo.es
Sweden	Eve Arnold emarnold@geo.su.se	—
Switzerland	Judith McKenzie judy.mckenzie@erdw.ethz.ch	Helmut Weissert helmut.weissert@erdw.ethz.ch
United Kingdom (chair)	Chris MacLeod macleod@cardiff.ac.uk	Rachael H. James r.h.james@open.ac.uk

 More information at www.essac.ecord.org



ECORD-Net Updates



More than three years into the ECORD-net project, and at the end of the first phase of IODP, the European Consortium for Ocean Research Drilling has reached maturity. Many of the objectives initially planned have now been accomplished. The ECORD structure is fully operational, in terms of managing funds, coordinating the scientific involvement of member countries, and implementing drilling operations.

A new brochure summarizes the ECORD-net accomplishments so far. It can be downloaded from the ECORD website at:

www.ecord.org/pub/ecord-net.pdf

However, some actions are still in progress.

Reaching out to the science community in Europe

The Magellan Workshop Series, run by ESF in coordination with the ECORD Science Support and Advisory Committee (ESSAC), is fully operational. Three new workshops, in preparation for drilling proposals, will be held this year (*see page 10*)

ESSAC has also initiated other activities, to encourage the participation of European scientists in ocean drilling:

The **Distinguished Lecturers Programme** offers the opportunity for a University or an Institute to invite one of the three selected lecturers (*see page 8*). We encourage non-ECORD European countries to apply.

A programme of **Summer Schools** for ECORD students/young scientists starts this year (*see page 10*), with two opportunities offered. Ten ECORD scholarships to support travel expenses are open to ECORD and non-ECORD European scientists (*see pages 6 & 8*). This activity will continue in the following years, and a call for proposals to organise a summer school in 2008 will be issued this spring.

In addition, the Council has also made the decision that applications from non-ECORD European scientists to participate in IODP expeditions should be considered by ESSAC. Opening this opportunity will allow ECORD to benefit from the intellectual contribution of outstanding scientists,

even though their country has not yet made the decision to join the consortium because of limited resources and small science communities.

Databases

A major goal of ECORD-net was to set up databases for the use of both managers and scientists. The database for managers will soon be posted on the ECORD website. It will provide information about the ECORD involvement in IODP, such as the expedition participants, the ECORD drilling proposals, the history of panel membership, etc.

A metadatabase for site survey information will also be made accessible. It will consist of a user-friendly portal to existing databases such as Euroseismic/EU-Seased which has been added to with new data by our Norwegian partner, DISCOS which contains valuable data from industry, and the OGS database.

Finally, following the Magellan workshop in January 2006, a geomicrobiology database will be finalised.

Deep Sea Frontier Initiative

A « foresight paper », resulting from the workshop held in Naples in June 2006, is about to be released. The Deep Sea Frontier steering committee is now

getting organised to answer the FP7 call, which provides the opportunity to submit a proposal for a coordination action.

Contact: Sören Dürr (Soeren.Duerr@dfg.de) or Stefan Winkler-Nees (Stefan.Winkler-nees@dfg.de).

ECORD-Net: European Research Area for scientific drilling Project n° ERAC-CT-2003- 510218, European Consortium for Ocean Research Drilling Network

*Co-ordinator - Catherine Mével - mevel@ipgp.jussieu.fr
www.ecord.org/enet/ecord-net*



ECORD Contacts

ECORD Council	ESSAC-ECORD Science Support and Advisory Committee
Chair: Raymond Schorno - schorno@nwo.nl Vice-Chairs: Sören Dürr - Soeren.Duerr@dfg.de & Bruno Goffé - bruno.goffe@cnrs-dir.fr	Chair: Chris MacLeod - macleod@cf.ac.uk Vice-Chair: Gilbert Camoin - gcamoin@arbois.cerege.fr ESSAC Office: essac@cardiff.ac.uk
EMA - ECORD Managing Agency	ESO - ECORD Science Operator
Director: Catherine Mével - mevel@ipgp.jussieu.fr EMA Office: ema@ipgp.jussieu.fr	Science Manager: Dan Evans - devans@bgs.ac.uk Operations Manager: Alister Skinner - acsk@bgs.ac.uk

More information on ECORD web site: <http://www.ecord.org>