ECORD
European Consortium for Ocean Research Drilling

Newsletter #3

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October, 2004

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ECORD goes to the North Pole

ECORD scored a «first» in ocean research this summer - the Arctic coring expedition (ACEX) which had been top ranked by ODP and IODP, had been the subject of a series of working groups and extensive planning for several years. The risk involved in obtaining drill core from near the North Pole was considerable. Through the ECORD operator, the NERC-BGS, ECORD managed to put together an excellent scientific and technical team and, as described in this newsletter and reported all over the world in the press, the coring succeeded in achieving almost all of the objectives. The hard scientific work begins in November in Bremen when the cores will be described, measured and sampled. New key results on the long term climate history of the planet will soon be available. Next year ECORD has agreed to sponsor a second coring operation in the coral reefs of Tahiti aimed at obtaining a high-resolution record of recent sea-level change.

While the ACEX drilling was taking place, ECORD scientists were also on the JOIDES Resolution in the eastern Pacific, working on problems related to the hydrology of the ocean basins and to paleo-oceanography. This was the first time ever that scientific ocean drilling had two IODP coring projects running concurrently. In 2007 we will at some time in the year have all three types of platforms running concurrently in different parts of the globe, and IODP will have reached its full potential. The programme depends on coupling highly imaginative science and pushing the limits of technology. Scientists are encouraged to propose audacious and exciting science that has never to date been attempted in the ocean basins. This science should be built in close cooperation, not only with geologists, geophysicists and biologists, but also engineers, all working in continental regimes and even in planetary sciences. The world is no longer the limit!

John Ludden,
ECORD Council Chair
Sept. 2004

Drillship Vidar Viking (photo Martin Jakobsson (©) IODP)

ECORD continues to grow

Although the European Consortium for Ocean Research Drilling is not even a year old, it has already attracted new members. When the Memorandum to become a contributing member of IODP was signed with NSF and MEXT on March 16th in Bremen, Spain had already joined ECORD.

The next country was Canada. Although not European, Canada has traditionally had strong links with the European scientific community and its proposal to join was very much welcomed by the ECORD Council. Unfortunately, at this stage, Canada has been unable to commit funds beyond FY04 and was therefore given the status of « provisional member ». Our Canadian colleagues are working on a longer term commitment and we hope that Canada becomes a full member in the near future.

The most recent addition to ECORD is Austria who joined last September, starting in FY05.

The Council is particularly pleased to have a new ECORD member who has not been involved with ocean drilling in the past. It is a new community who will have access to the programme.

It is one of the ECORD-net tasks to attract new European countries to the consortium and in particular members from the Newly Associated States (NAS). A strategy to approach some of these countries is now developed. If we are successfull, not only will ECORD expand but more importantly a completely new scientific community will be brought into the programme with new ideas and interests. This new blood can only generate even more excitement.

Catherine Mével, ECORD Managing Agency Director.

ECORD member countries :
Austria (from FY05), Canada (FY04), Denmark, Finland, France, Germany, Iceland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

ECORD Science Support and Advisory Committee - ESSAC «Update on Activities»

Nearly one year into the IODP program two expeditions have successfully sailed: the combined Juan de Fuca Hydrology and Costa Rica Expeditions (301 and 301T, respectively, 27 June – 25 Sep. 2004), and the Arctic Coring Expedition or "ACEX" (302, 8 Aug. - 14 Sep. 2004). The Juan de Fuca Expedition installed two new long-term CORK observatories (Holes 1301A and –B) and replaced the CORK at Hole 1026B (originally installed during Leg 168). These observatories will monitor 3D fluid composition and flow within oceanic crust. In particular they will offer a unique opportunity to determine how fluid pathways are distributed within an active hydrothermal system. The Costa Rica Expedition 301T replaced CORK downhole instrument strings (with osmotic fluid samplers and miniaturized temperature loggers) at ODP Sites 1253 (incoming plate) and 1255 offshore Costa Rica (decollement zone). These sites will investigate fluid geochemistry and flow across the margin and their implications for the seismogenic zone and subduction factory.

ACEX (Expedition 302) was the first attempt to drill the seafloor in ice-covered areas. It recovered sections of a 428 m long and approximately 56 million year old sediment sequence resting on 80 million years old "basement". More details about the achievements of ACEX are given on pages 4 & 5.

Operational schedule IODP Expeditions 2004-mid 2005
Riserless Vessel & Mission Specific Platforms

Expedition	#	Port (origin)	Period
Juan de Fuca Hydrogeology *	301	Astoria	27 June - 21 Aug. 04
Costa Rica Hydrogeology/Transit *	301T	Astoria	21 Aug - 25 Sept. 04
Arctic Coring Expedition-ACEX *	302	Tromsö	8 Aug. - 14 Sept. 04
North Atlantic Climate1	303	Acapulco	25 Sept. - 17 Nov. 04
Oceanic Core Complex 1	304	Ponta Delgada	17 Nov. - 8 Jan. 04
Oceanic Core Complex 2	305	Ponta Delgada	8 Jan. - 2 March 05
North Atlantic Climate 2	306	Ponta Delgada	2 March - 22 April 05
Tahiti Sea Level	N/A	N/A	summer 2005

* operation completed

The IODP operational schedule (see table above) summarizes four more expeditions that will sail in the period up to mid 2005. Those four expeditions are paired into two major scientific objectives (see table above). Expeditions 303 and 306 will investigate late Neogene–Quaternary climate proxies in the North Atlantic to develop a "paleointensity" chronology (PAC), based on a combination of geomagnetic paleo-intensity, stable isotope, and detrital layer stratigraphies. In addition, a CORK will be placed at ODP Site 642 (Vøring Plateau) to document and monitor bottom water temperature variations through time. Expeditions 304 and 305 will characterize variations in rock type, structure, and alteration with depth at the ultramafic oceanic core complex and will obtain core of essentially fresh, in situ peridotite. In addition, the Tahiti Sea Level expedition is scheduled and needs final approval by IODP Management International (IODP-MI).

More than 17 European scientists and one co-chief have participated in the first two IODP expeditions (see table below) and nearly 25 scientists and two co-chiefs will join the upcoming four expeditions. The number of applications for those Science Party positions was more than twice the number that could be accommodated and confirms the high interest of European science community in IODP science. Though the staffing of the scientific crews for the four scheduled expeditions has recently been completed, new expeditions will be scheduled very soon.

One of those is the **Tahiti Sea Level expedition** that will sail in the summer of 2005 and is open for applications until November 10, 2004 at : **www.geo.vu.nl/users/essac/**

ECORD scientists on IODP expeditions (301-302)

Juan de Fuca Expedition - 301:
Anne Bartetzko, Germany
Rosalind Coggon, U. K.
Marion Dumont, Sweden
Bert Engelen, Germany
Verena Heuer, Germany
Bjorn Olav Steinsbu, Norway

Arctic Coring Expedition - 302:
Jan Backman (co-chief), Sweden
Henk Brinkhuis, The Netherlands
Frédérique Eynaud, France
Jérôme Gattacceca, France
Martin Jakobsson, Sweden
Michael Kaminski, U. K.
Nalan Koc, Norway
Jens-J. Matthiessen, Germany
Heiko Paelike, U. K.
Brice Rea, U. K.
Domenico Rio, Italy
Ruediger Stein, Germany

Proposal ranking (Group I)

Rank	Proposal	Short title	Short summary
1	519-Full2	Tahiti Sea Level	Will drill shallow drill reefs at 20 to 300 water depth using a MSP in order to establish the course of the last deglacial sea level rise and to identify short term paleoclimatic / paleoceanographic changes following the Last Glacial Maximum.
2	545-Full3	Juan de Fuca Flank Hydrogeology	Phase 2 will drill into (1) hydrothermal up flow zone to evaluate the basement alteration and the along-strike hydrothermal recharge and (2) deeply buried basement ridges to evaluate the influences of hydrothermal circulation on crustal evolution and microbiology.
3	564-Full	New Jersey Shelf	Will drill 3 sites on the inner continental shelf of New Jersey to estimate amplitudes and rates of Cenozoic eustatic changes and to evaluate the response of passive continental margin sedimentation to such variations.
4	589-Full3	Gulf of Mexico Overpressures	Will provide rock and fluid properties in a normally pressured (Brazos-Trinty) and in an overpressured depositional basin (Ursa) including Logging While Drillling, piezoprobe and wirelines packer stress measurements. Will seal one hole in order to establish the framework of long-term observatory of fluid flow behavior.

In orange, proposal with an ECORD scientist as a lead proponent

In June 2004 in Yokohama, the IODP Scientific Planning Committee (SPC) reviewed and ranked a series of scientific drilling proposals following positive signals from NSF and MEXT that the US JOIDES Resolution drillship will continue sailing until into 2006. The highest ranked proposals (see tables above and pages 6&7) were forwarded to the Operational Committee (OPCOM) that will draft a tentative drilling schedule in coordination with the IODP Management Office, IODP MI. Proposals 1 to 7 (table page 6) were recommended for scheduling if at all possible within operational constraints, this group joins the Group I proposals (table above) previously forwarded to OPCOM and currently awaiting scheduling; proposals 8-10 (table page 7) are considered as alternatives only if the Group I proposals cannot fill the schedule; and proposals 11-14 (table page 7) only if those in Groups I and II cannot fill the schedule. The OPCOM reviews these proposals at their 30 September – 1 October meeting and will forward one or more scenarios to SPC (24-27 October meeting in Corvallis).

Obviously the ranking position and geographical location, besides other logistical and budgetary constraints, will influence the scheduling of expeditions and the list of the highest ranked proposals is tentative for the time being. However, it provides the community with a "glimpse" of what drillable science can be expected in the very near future. We expect that a final drilling schedule will be posted by the end of 2004.

The drilling schedule is the end product of a long journey from a scientific idea to a proposal and finally to scheduling. European scientists have faired very well in this respect and are involved as co-proponents in more than one-third of the nearly 200 currently active IODP proposals. Nearly 30 of those proposals have ECORD scientists as lead proponents, covering the entire spectrum of the IODP Initial Science Plan: 6 proposals on the Deep biosphere and subseafloor ocean, 15 proposals on Environmental change, processes and effects, and 6 proposals on Solid earth cycles and geodynamics. European scientists, however, face two potential obstacles "on the road" to a scheduled IODP expedition: 1) the rather complex structure of the proposal process, and 2) the lack of funding for required site surveys. To tackle the first obstacle, the ESSAC Office will soon post a brochure that explains this process and, in addition, ESSAC will start to actively support and nurture the scientific initiatives that lead to IODP proposals. In this context, a working group is translating this initiative into a workshop program. To ease the second obstacle, a EuroCores proposal was formulated (and supported by ESF). The goal of this program will be to stimulate and coach potentially successful scientific initiatives as well as provide funding required for related site survey activities to help those "seed" ideas mature into IODP proposals. A significant number of the ECORD members are supportive of this program and a full proposal is currently developed and will be submitted to ESF in November.

For more information, please visit the ESSAC webpages linked to the ECORD website or contact Valentina Zampetti, the ESSAC Science Coordinator, at ESSAC Office in Amsterdam: **essac.amsterdam@falw.vu.nl** or by phone: +31 20 4447272.

Jeroen Kenter, ESSAC Chair

Call for Applications
to the Tahiti Expedition
no later than November 10 !

How to Apply?
Application procedures available on ECORD and ESSAC web pages at:
www.ecord.org
www.geo.vu.nl/users/essac/

ESSAC "Updates on activities" continues on pages 6 & 7

Arctic Coring Expedition

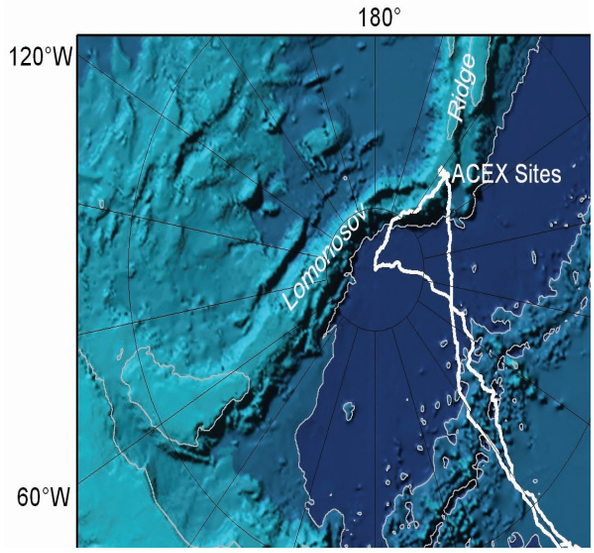
Palaeoceanographic and Tectonic evolution of the central Arctic Ocean

From Hothouse to Icehouse

The primary goal of the Arctic Coring Expedition (ACEX), was the continuous recovery of a 400+ m thick sediment sequence draping the crest of the Lomonosov Ridge in the central Arctic Ocean between 87°N and 88°N. This would meet the fundamental paleoceanographic objectives of ACEX, namely to determine the Cenozoic paleo-environmental evolution in the central Arctic Ocean and to decipher Arctic's role in the global development from the Paleogene greenhouse to the Neogene icehouse. Another major goal was to sample the transition across the regional unconformity to establish the pre-Cenozoic environmental setting of the ridge. Prior to ACEX, knowledge about the paleo-environmental history of the central Arctic Ocean was limited to short (generally <10 m) box-, gravity- and piston-cores, providing records of chiefly Pleistocene sedimentation. Moreover, only four short (<5 m) cores, all raised from the Alpha Ridge, were known to contain pre-Pleistocene sediments, one holding Eocene and the remaining three Upper Cretaceous sediments.

ACEX drilled five holes at four sites into the Cenozoic sediment drape, one of which continued into the the underlying sedimentary bedrock. A total of 495.5 m, distributed over 8 APC cores, 110 XCB cores and 1 Wash Core, was cored at these four sites, yielding a total recovery of 339.1 m, corresponding to 68.4%. Hole M0002A yielded a recovery of 78.5% between the mudline and 272 mbsf (Middle Eocene). Hole M0004A yielded a recovery of 47.4% between 265 mbsf and the terminal depth at 427.9 mbsf (Campanian). Despite the limitations caused by these recovery gaps, ACEX thus provides, for the first time, a fairly long record of Cenozoic sediments from the central Arctic Ocean, which will permit us to move away from pure speculation about Arctic's Cenozoic paleo-environmental evolution.

The sites are located only a few nautical miles apart along a single seismic line (AWI-91090), showing an identical and coherent Cenozoic seismostratigraphy. Preliminary results from shipboard investigations of core-catchers describe a thick Middle Miocene through Pleistocene sequence that shows large amplitude, cyclic variability in the density, magnetic susceptibility and acoustic velocity of the sediments. Biogenic carbonate in the form of foraminifers, ostracodes and calcareous nannofossils were encountered only in the Holocene and the uppermost Pleistocene section. The current age control in the Pleistocene and Neogene sections hence relies on dinoflagellate cyst biostratigraphy, indicating a Pleistocene sedimentation rate on the order of 3 cm/ka. Sediments of Early Pliocene and latest Miocene age are missing in a hiatus. Late and Middle Miocene sediments were deposited at rates varying between about 1 and 2 cm/ka. A 32 m thick interval separates the overlying Middle Miocene from the underlying Middle Eocene and presumably preserves some of the early Neogene and late Paleogene sections. This interval shows changes in physical properties, and from visual inspection through the core liners, colour variability having distinct cyclic character. Dinoflagellate cysts, diatoms, ebridians and silicoflagellates are



Location of the ACEX coring sites (from ACEX science party. Map of the ocean floor from NOAA - ICBAO - NGDC, Jakobsson et al., 2000).

common to abundant in the Middle Eocene section, which bottoms in a spectacular layer showing massive occurrences of glochidia and massulae (megaspores) of the freshwater hydropterid fern Azolla at the Early/Middle Eocene boundary, suggesting strongly reduced surface water salinity or perhaps even a brief episode of fresh water conditions at the surface. It is yet not known if the Azolla spores represent an indigenous signal, indicating fresh-to-nearly-fresh surface waters, or if they have been transported into a marine Arctic basin from a neighbouring freshwater system. However, the sporadic and rare occurrences of radiolarians suggest that Arctic's surface water salinities indeed were reduced throughout the Eocene interval containing biosilica. Biosilica is not present prior to the late Early Eocene. The dinoflagellate species Apectodinium augustum occurs abundantly at around 380 m in pyrite-rich mudstones, indicating that the Initial Eocene Thermal Maximum interval has been recovered, during which the Arctic Ocean experienced surface temperatures on the order of 20°C. Benthic foraminifers suggest that the Early Eocene through latest Paleocene sediments were deposited in a shelf environment. Mudstone of Late Paleocene age rests unconformably on Campanian marine sands, sandstone and mudstone.

Jan Backman, Kate Moran and the ACEX science party.

Outdoor core handling table on drilling vessel Vidar Viking, showing part of Section M0002A-44X-1, with sharp colour change and lithological cycles at ~192 mbsf, in the transition interval separating the overlying Middle Miocene from the underlying Middle Eocene (photo Jan Backman and ACEX science party).

ACEX - IODP Expedition 302
August 8-September 14, 2004

The technological challenge

The ACEX expedition is the first Mission Specific Platform operation undertaken by ESO for ECORD on behalf of IODP. Scientists, technicians, navigators, ice and weather experts have been preparing for this challenging and complex expedition for the past several years. ACEX has been a very real adventure that has broken new technical and scientific barriers in both Arctic exploration and international ocean drilling. There can be no doubt that the ACEX Expedition will make an enormous contribution to our knowledge of the history of the Arctic Ocean, and that it will spawn a large number of significant scientific publications. Furthermore, having demonstrated the ability of a well-chosen fleet with experienced personnel to enable drilling to take place in the Arctic ice, it is to be hoped that further drilling campaigns will follow in the region.

Thanks are due to all those involved, not least the Captains and crews of all three vessels, the Swedish Polar Research Secretariat, the fleet and ice management teams, and the drilling contractors SeaCore.

Ships

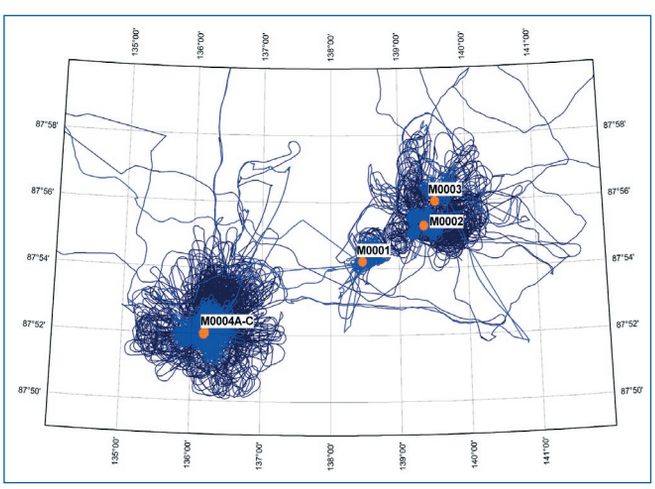
The operational plan involved 3 icebreakers, the Swedish registered Vidar Viking as the coring vessel, equipped with a 34-meter tall derrick and two protecting vessels, the Oden and the Sovetskiy Soyuz breaking and pushing apart ice floes and ridges while the Vidar Viking was drilling and coring.

Drilling vessel Vidar Viking (nearest) was able to keep position for extended periods of time because of the support provided by icebreakers Oden (middle) and Sovetskiy Soyuz (distant) while drilling Hole M0004A at 87°52.0'N and 136°111.2'E on 30 August 2004 (photo Martin Jakobsson (©) IODP).

The Vidar Viking came on contract at Aberdeen as a bare-decked supply-type vessel. The ship was then transformed into a drilling platform, complete with the R100 rig installed by SeaCore, the drilling contractors. A 100-ton stern notch (essential when in ice) and a helideck were added before proceeding to Tromsø.

The powerful Sovetskiy Soyuz has been an essential component of our success. During transits, she led the convoy through the ice, finding the best paths through open-water leads, and broke ice so that the Oden, and the Vidar Viking may follow at a good pace. When coring was being conducted, Soyuz, in the role of «destroyer» scouted «upstream» from the Oden and Viking, breaking larger floes and ice ridges into smaller pieces that can be managed by Oden (the «protector») and then Viking.

The third icebreaker, the Oden was the command centre for the Expedition from which the ice and fleet management were conducted. It was also the base for the limited number of scientists that could be accommodated on the offshore part of the expedition. Three scientists were flown by helicopter to the Vidar Viking for each shift, but the micropalaeontologists that formed the bulk of the scientists had their laboratory on the Oden and received core-catcher samples on a regular basis.



Ship tracks over ACEX sites. Support icebreakers worked continuously at a distance varying between a few tens of meters to a few hundred meters away from the drilling vessel, thereby creating a dense spider-web pattern around the drilling vessel and the sites (from ACEX science party).

Ice Management

A key aspect of the success of ACEX was the ice-management programme including the co-ordination of the activities of the whole fleet. The co-ordination of the fleet by the experienced Fleet Master, Captain Anders Backman, was exemplary. Because the ice is always moving, it needs to be broken ahead of the drilling vessel so that she can remain in position and is not pushed off station by ice floes. The Oden and the Sovetskiy Soyuz proved extremely capable of breaking all but the most difficult multi-year ice and this allowed the Vidar Viking to drill for extended periods. Arno Keinonen, the leader of the ice-management team observed that «this work is much more difficult than normal ice breaking, for icebreakers usually avoid the most difficult ice in order to make passage, but in protecting the Vidar Viking they have to deliberately break the heavy ice; taking an icebreaker to the North Pole is easy compared with the task that has been accomplished with ACEX».

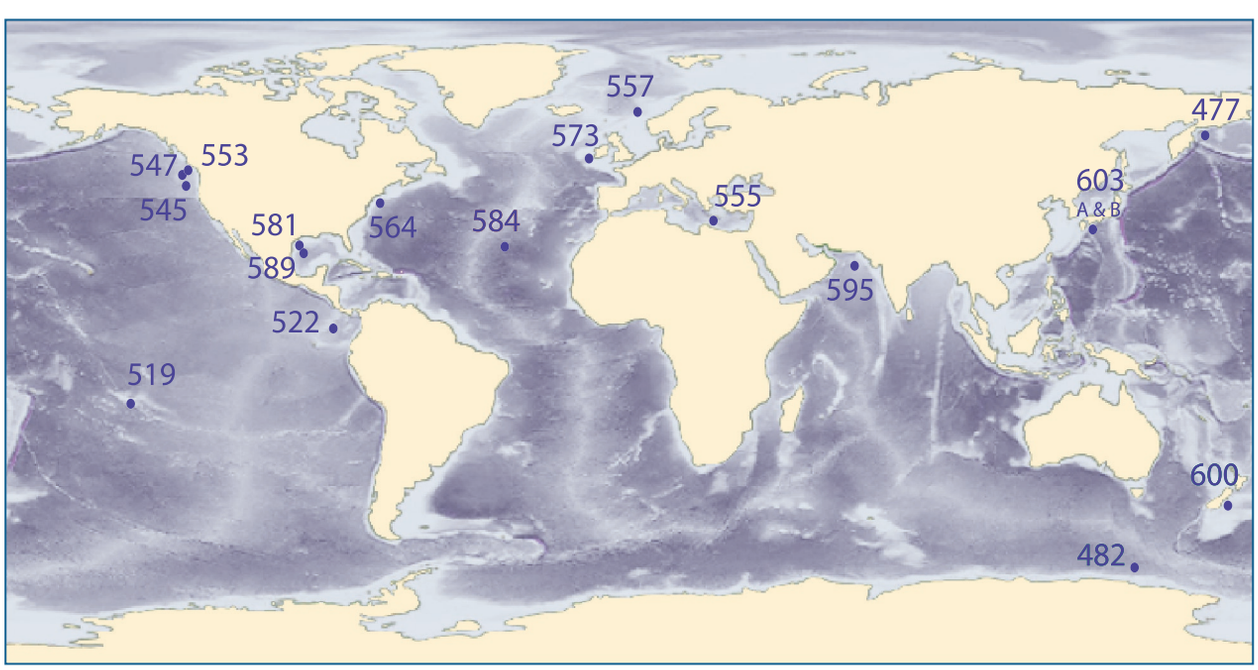
Dan Evans and Alister Skinner, ESO Managers

Proposal ranking (1 to 7)

Rank	Proposal	Short title	Short summary
1	522-Full3	Superfast Spreading Crust	Second part of a two stage drilling strategy to sample, at ODP site 1256, a complete section of the upper oceanic crust formed at a superfast (>200mm/yr) spreading rate.
2	603A-Full2	NanTroSEIZE Phase 1	Phase 1 will drill 3 reference sites: 1 and 2 within the Shikoku Basin to quantify initial conditions and to show how basement relief influences the pre-subduction geometry of sedimentary facies, temperature, permeability, sediment and basement alteration, and fluid flow; 3 at the toe of the accretionary prism to show early-phase deformation
3	603B-Full2	NanTroSEIZE Phase 2	To characterize the strain accumulation and slip along mega-splays (large out-of-sequence-thrust faults branching from the décollement) off the Kii peninsula, and sample and instrument the mega-splay fault system at a range of P-T conditions from ~1-3.5 km bsf.
4	477-Full4	Okhotsk/Bering Plio-Pleistocene	Will provide continuous and high resolution paleoenvironmental records for the Okhotsk and Bearing seas for the first time. These new records can be used to understand the processes that influence intermediate water ventilation and its role in global climate changes.
5	482-Full3	Wilkes Land Margin	Will constrain the age, nature and paleoenvironment of deposition of this sedimentary sequence and aims to ground-truth the existing glacial-stratigraphic and ice-sheet volume models.
6	553-Full2	Cascadia Margin Hydrates	Will constrain models for the formation of gas hydrate in subduction zone accretionary prisms. The objectives include the deep origin of the methane, its upward transport, its incorporation in gas hydrate and its subsequent loss in the sea floor.
7	600-Full	Canterbury Basin	Focuses on understanding the relative importance of global sea level (eustasy) versus local tectonic and sedimentary processes in controlling continental-margin depositional cyclicity.

In orange, proposal with an ECORD scientists as a lead proponent

Location of the ranked IODP proposals



World map modified from Smith and Sandwell, NOAA-NGDC-GLOBE project.

Proposal ranking (8 to 10)

Rank	Proposal	Short title	Short summary
8	595-Full3	Indus Fan and Murray Ridge	To investigate the erosional record of the Indus Fan since India-Asia collision. Drilling will date the onset of fan sedimentation in a proximal location. SPC proposed to split the project in 2 phases beginning with Murray Ridge site.
9	547-Full4	Oceanic Subsurface Biosphere	Multidisciplinary effort to understand the nature and extent of subsurface biosphere in volcanic ocean crust.
10	557-Full2	Storegga Slide Gas Hydrates	Focuses on the connection between gas hydrates, fluid expulsion, continental margin instability and gas loss during slumps with a great potential to bring together industry and academia.

Proposal ranking (11 to 14)

11	581-Full2	Late Pleistocene Coralgal Banks	To drill and analyze the currently downed coral reefs on the edge of the South Texas Shelf. This drilling proposal should be also considered as an exemplary scientific drilling activity in shallow water conditions. Optional when route vessel is passing nearby.
12	584-Full2	TAG II Hydrothermal	Will extend sea-floor hydrothermal research by placing biological, chemical and physical processes at the active sulfide mound in the context of the evolution of long-lived hydrothermal field.
13	555-Full3	Cretan Margin	Drilling a backstop setting is now essential to elucidate fundamental deep fluid flow processes and deformation mechanisms in a landward accretionary prism and its backstop.
14	573-Full2	Porcupine Basin Carbonate Mounds	Access to new, unexplored modern habitats of Deep Biosphere: the giant carbonate mounds, possible models for prominent Biosphere systems throughout the Earth history. May shed a light on the potential role of Gas Hydrate. Optional when route vessel is passing nearby.

In orange, proposals with ECORD scientists as lead proponents

ESSAC Education and Outreach Working Group

One of the primary tasks of ESSAC, Education and Outreach, is delegated to a working group (WG E&O) that, next to ESSAC delegates (Eve Arnold, Chair; Fernando Barriga) includes representatives from EMA (Catherine Mével) and ESO (Andy Kingdon). Late 2003 the WG generated a draft ESSAC "mission statement" on E&O which was included in the first official IODP – MI workshop on Education and Outreach, organized in February in Austin, Texas. This workshop, in which four ECORD members participated, outlined a detailed program-wide education and outreach plan for the international program (download this report from: **www.iodp.org/iodp-mi/meetings/**). Subsequently, in March, the University of Bremen hosted an ECORD-IODP Education and Outreach workshop as part of the IODP/ICDP Euroforum. Here, IODP and ICDP educational opportunities were discussed on a European level, and ideas were shared how to pursue, and fund, a balanced E&O strategy in the future.

In addition to these meetings, the ESSAC E&O WG is now represented on the European Geophysical Union's Committee on Education, which is chaired by Carlo Laj. The EGU Committee on Education sponsors a teacher's workshop, GIFT, (Geophysical Information For Teachers) at the annual EGU meeting. This spring, the GIFT workshop topic was "The Ocean", and several IODP scientists presented their research results to a group of nearly 50 European teachers from 11 different countries. The E&O WG looks forward to a long collaboration with the EGU as a strong component of our IODP educational activities. Be sure to inform teachers in your country of the upcoming GIFT workshop at next spring's meeting!

The most exciting opportunity this year was an invitation from the Swedish Polar Secretariat to sail a teacher on the ACEX cruise this summer. ECORD sponsored science teacher Erik Zetterberg, from a high school in Sweden, to participate in this expedition (read Erik's report on **www.rcom-bremen.de/English/Teachers.html**). The E&O WG, together with Erik, plans to develop ACEX educational material for distribution to educators across Europe. In addition, steps are initiated to develop future opportunities for teachers (from your country?) to participate in IODP expeditions or in IODP educational workshops. The E&O works on a short term E&O strategy for ECORD and hopes to present such plans by the end of 2004.

If you have any suggestions for IODP educational and outreach activities, would like to receive updates on future educational activities, or would like to let us know about IODP educational activities in your country, please send an e-mail to Eve Arnold: **emarnold@geo.su.se**

ERA-NET

SIXTH FRAMEWORK PROGRAMME

The ECORD-net is behind all of the strategic planning activities for Europe in IODP

ACEX – a complex scientific programme

The first Mission Specific Platform operation – Arctic Coring Expedition (ACEX) was implemented by ESO through complex sub-contracting with industry and academia. ESO is coordinated by the British Geological Survey, and includes the University of Bremen and the European Petrophysical Consortium-EPC which itself comprises several European universities. Through multi-partner negotiation including European industry, and in cooperation with the Swedish Polar Research Secretariat, the ECORD-net through ESO set up contracts to use :

- three vessels operated by three different countries,
- an ice and fleet management team and equipment,
- a logging contractor and core logging provision,
- micropalaeontology support,
- expertise and facilities for post-cruise science, sampling and core description.

The contracting and management for the coring phase of the programme was successfully completed in September 2004, and the second phase - on-shore core description - begins in November 2004.

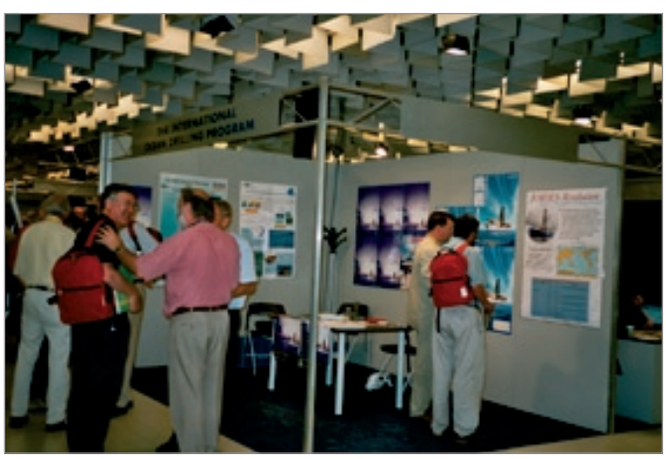
ECORD - opening to Eastern Europe

Europe grows fast, and so is the Consortium. The newly associated European states are target countries for ECORD, and a strategy to approach them regarding ECORD membership was developed at the meeting of Work Package 2, held in the headquarters of the Swedish Research Council in Stockholm on 15 September 2004. The strategy includes several steps and focuses on the existing networks of scientists and managers in Europe, as well as on the cooperation with other ERA-net projects. A team of ECORD representatives will attend the next meeting of BONUS-net forum and will present ECORD and IODP to programme managers from the Baltic States. In addition, ECORD-net sponsored A. Krylov, a Russian scientist from VNII Okeangeologia, St. Petersbourg, who participated in the ACEX as an observer.

European component in IODP - Efficient flow of information

A meeting of Work Package 1 participants was held in Paris on 5 October 2004. The meeting was attended by ECORD-net partners from France, Iceland, Norway, the Netherlands, Portugal, Switzerland, UK, and a representative from Italy. The participants discussed the currently existing data bases in marine geosciences in Europe, and the progress achieved in building up the data base on Mission Specific Platform activities, as well as the information archive related to the ECORD component in planning, pre-cruise activities, and participation of ECORD scientists in the IODP expeditions.

To help European scientists develop drilling proposals, and funding agencies evaluate the importance of the project, a scientific planning data base will be created. Preliminary work has started on compiling an inventory of relevant institutions, data owners and experts in the domains that can be considered as "hot spots" of ocean research drilling (both geographically, e.g. the Mediterranean, or thematic, e.g. deep biosphere research).



ECORD-IODP booth at the 32nd IGC in Florence, August 2004 (photo S. Zolotikova).

ECORD Contacts

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