

J-DESC

NEWS

Japan Drilling Earth Science Consortium

Vol. 1

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J-DESC Entering its Forth Year

Shunso Ishihara

Chairman, Japan Drilling Earth Science Consortium
Adviser to the National Institute of Advanced Industrial
Science and Technology



Already three years have passed since the inception of J-DESC and we are about to enter our fourth year. In the previous fiscal year, earth drilling has seen a lot of activity.

The best news was that the deep-sea drilling vessel *Chikyu* was handed over to the Japan Agency for Marine-Earth Science and Technology (JAMSTEC) last July, and since then trial operation has proceeded smoothly. After piston coring last year, the vessel this year successfully completed drilling operations and next year is scheduled to enter into full operation. This is expected to assign an increasingly important role to J-DESC as being in charge of scientific planning.

With the establishment of the Kochi Institute for Core Sample Research by JAMSTEC on October 1, 2005, a full research system for analyzing collected core samples is now in place. In the future, J-DESC hopes to cooperate with the Kochi Institute for Core Sample Research and Kochi University in promoting activities such as setting up core processing schools nationwide. This year coincides with refitting of the JOIDES Resolution, so there will be no IODP research drilling cruise. We, therefore, have scheduled a multitude of meetings and workshops to devote plenty of time and effort to working out plans for the future. What is very special about these is that some of them are jointly sponsored by the Integrated Ocean Drilling Program (IODP) and the International Continental Scientific Drilling Program (ICDP). J-DESC lends its support by assisting students wishing to attend with travel expenses. In addition, the first IODP Post-Exhibition Lecture was held under joint sponsorship of the Ocean Research Institute of the University of Tokyo and JAMSTEC, mainly

at the J-DESC IODP section, in May of this year, where the results of research cruises conducted up to now were taken up in lively discussions. We have also heard that our efforts going into research assistance to promote IODP's scientific programs are finally beginning to bear fruit.

To move on to continental drilling, J-DESC published Japan's National Science Plan entitled "Looking at the Earth Through a Fiberscope", which lays down the government's policies on scientific drilling, and a pamphlet giving a short introduction to this plan. Besides earth science issues continental drilling is directed at finding the answers to problems related to

disasters, resources, and the environment and so on. To make the contents of this plan widely known and understood, we sponsored the "Continental Drilling and Society" symposium last December. This May we also held the first meeting for exchange of information on continental drilling research. In another development, two workshop projects proposed by the government were adopted by ICDP. As both of these require cooperation with IODP, we believe that scientific drilling transcending the borders of land and sea as attempted by J-DESC is gradually moving closer to realization.

We ask for your continued cooperation and support for J-DESC's activities.



Japan's deep-sea drilling vessel, the *Chikyu*, will go into full operation for IODP from 2007.



The ICDP Unzen Scientific Drilling Project completed in 2004. Vent drilling was performed at the site of the 1990s eruptions.

IODP Drilling Proposals and J-DESC's Approach

Noriyuki Suzuki

Chairman of IODP Section, J-DESC
Graduate School of Science, Hokkaido University



J-DESC's IODP Section is engaged in evolving activities for J-DESC as IODP Japan National Office and activities to promote Japan's ocean drilling science through IODP. Thanks to the efforts of successive members of the administration and the AESTO Secretariat, rules have been established regarding the recommendation of IODP SAS (Science Advisory Structure) members for participation in various committees and participation of onboard researchers in IODP research expeditions. While working on PR for IODP, our more obvious activities currently being promoted include organizing the IODP Post-Expedition Lecture, publication of our newsletter, and setting up J-DESC booths at academic meetings in Japan and abroad. J-DESC is an assemblage

of scientists. More than anything, we hope to make efficient use of IODP and to contribute through scientific results. Specifically speaking, scientific drilling proposals are our most basic scientific activity and our contribution to IODP. Drilling proposals from Japan are increasing gradually these days, but as yet are too few. IODP in Japan is still faced with a number of issues that need to be solved, including the various problems associated with site surveys absolutely necessary for drilling proposals, a system to support those making such proposals, the international exchanges necessary for drawing up the proposal documents, and developing and recruiting human resources for active involvement in scientific ocean drilling.

In May 2006, AESTO for the first time publicly

invited applications from people to assist with preparation of drilling proposals. We were also happy to see one of our long-cherished ambitions come true with the adoption of "Dynamics of the Earth System" (Fiscal 2007 – 2008) for award of time-limited grants-in-aid for scientific research in fiscal 2007. From now on, we will have to appeal IODP even stronger to gain the understanding of society through activities focusing on scientific output. In addition to the activities mentioned above, the administration of the IODP Section is getting ready to move on to the next stage by keeping an eye out for opportunities such as setting up a permanent IODP session at academic meetings in Japan, engaging in international exchanges and holding international symposiums.

Continental Scientific Drilling in Japan and J-DESC's Approach

Tetsuro Urabe

Chairman of Continental Drilling Section, J-DESC
School of Science, University of Tokyo



Several years ago, when one after another of the government agencies which had been involved in the execution of mission drilling for resources exploration, etc. were turned into independent administrative institutions, long-term planning had become difficult and many of Japan's continental drilling programs met the bitter fate of being scaled back or canceled. In the meantime, with the economic growth experienced in countries such as China, Russia and India, the demand for energy and mineral resources rose dramatically and as prices kept hovering at the high end, the time had come for Japan to review its resources policy. The so-called "Skeleton Policy" (Basic policy on improvement of economic and financial administration and restructuring) announced in July 2006 also deals in great depth with the strategic development of resources and energy policies, and there is growing public

concern about the problem, going beyond the conventional resources related industry.

However, many of the engineering geologists experienced in exploration and mining engineers who have taken part in mine development have reached retirement age and even some of the companies formerly engaged in mining do not have any engineering geologists on their staff. The situation at universities is the same: teaching staff in the resources field, both at the physics and engineering departments, have already become an endangered species. One feels like asking the question as to what the stance of earth science, where a pronounced shift toward environmental problems is underway, will be in dealing with the resources problem in the future. A certain resources related company is demanding that mid-career staff be retrained at foreign universities, but bringing up a new

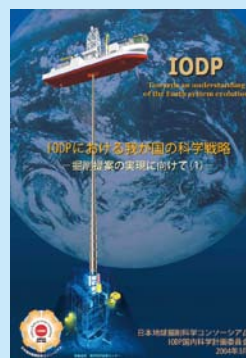
generation of scientists at Japanese universities remains up in the air.

At the Continental Drilling Sectional Meeting, an appeal for scientific drilling as a way to solving the problems faced by society, such as the resources issue, was made by publication of Japan's National Science Plan, "Looking at the Earth Through a Fiberscope", and "Outline of Continental Drilling Science Plan", a pamphlet explaining the contents of this plan. One of the approaches we are currently debating is opening up scientific research of existing mission drilling programs. In the future, we hope that you all will cooperate with us in accelerating this kind of development so we can improve the situation from our end by creating opportunities for getting students involved in drilling science.

J-DESC Publications

The Japan Drilling Earth Science Consortium publishes proposals consolidating the science, technology and organization necessary for promoting scientific drilling, a future outlook, science plans, etc. Please visit J-DESC's website (www.j-desc.org), where these publications are posted as PDF files.

- Left : Strategy for IODP Science Activity in Japan
– Science Plans towards Realizing Drilling Proposals (1) –
- Right : Looking at the Earth through a Fiberscope
– Continental Drilling Science Plan –



Outline and Results of IODP Expedition 301 — Report at 2nd Post Cruise Meeting —



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Shoichi Kiyokawa
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Ocean Research Institute of the University of Tokyo

Introduction

Exp. 301, the first expedition of the Integrated Ocean Drilling Program (IODP), created in October 2003, went to a site 250 km off Washington State on the US West Coast from June 27 to August 20, 2004 (Fig. 1). The purpose of this expedition was to conduct a number of investigations from the JOIDES Resolution, including the wider area hydrothermal circulation, the hydrogeologic architecture of the oceanic crust on the eastern flank of Juan de Fuca Ridge, as well as the accompanying hydrothermal alteration and geomicrobial processes. For details of the expedition, please refer to the IODP Proceedings CD-ROM (Vol. 301; Fisher et al. 2005).

The 2nd Post-Cruise Meeting of the expedition was held at the University of Alaska Fairbanks in early May 2006. The meeting was planned to discuss the expedition results one to two years after its completion, with each of the participants giving a brief summary of their research of approx. 20 minutes. Here follows a brief report of what Exp. 301 was intended to clarify and what findings were obtained, including the individual research papers. Due to space limitations this newsletter covers only the first half of these reports. For the complete texts, please refer to the J-DESC website.

Characteristics of the eastern flank of Juan de Fuca Ridge

Juan de Fuca, where this experiment was conducted, is said to have an ocean located below the seafloor. In 1996, drilling expedition ODP Leg 168 targeted this area. The temperature and chemical composition of hot water sampled in one of the boreholes and of the hot water gushing out from Baby Bare, nearby exposed parts of basement rock, were confirmed to be identical based on measurements taken by the DSV Alvin. It is, therefore, assumed that there is a high-permeability horizon in the sediment-covered uppermost layer of the basaltic oceanic crust, in which medium temperature water (60 - 70 °C) circulates (Wheat and Mottl, 2000).

This expedition for the first time used several boreholes to observe the movement of water in the crust over a distance in the order of kilometers. The Cork installed on a previous expedition was not working properly and was therefore recovered and replaced with two improved models. Interestingly, it is presumed that this hot water supplies the energy source for chemical synthesis in the basement microbiosphere (Cowen et al., 2003).

Low-temperature hydrothermal circulation conceivably also occurs in ridge flanks in other parts of the world, but the Juan de Fuca Ridge survey is the most thorough to date.

It is well known that high-temperature (300 - 400 °C) hydrothermal vents such as black smokers are found on the mid-ocean ridge axis. Low-temperature hydrothermal flux at the ridge flanks, on the other hand, has hardly been investigated as it is distributed wide and far across the seafloor and therefore difficult to study. It has been calculated, however, that the hydrothermal circulation at the flanks compared with that at the ridge axis (<million years) is more than three times in terms of total heat release and more than ten times in terms of material circulation volume, which is a very important phenomenon (Mottl and Wheat, 1994).

But the eastern flank of Juan de Fuca Ridge has certain factors that differentiate it from typical ridge flanks. It is near the coast of the North American continent and covered

with a thick layer of turbidite aged at most 3 million years. It is therefore believed that this layer acts as an impermeable layer (cap rock) forming a hydrothermal reservoir in the oceanic crust beneath. For this reason, the temperature of the circulating flux is several 10 °C higher than in other ridge flanks of the same age, and medium-temperature flux is circulating in parallel to the expanded axis. In addition, the temperature at the top surface of both the higher and the lower regions of the basaltic crust (base) is the same, leading to the assumption that the hydrothermal flux determines the temperature of the oceanic crust (Davies et al., 1999).

Besides the members involved in recovering the Cork (see J-DESC website), experts in microbiology, petrology, geochemistry, sedimentology, rock physics, logging, and other fields were onboard for this drilling expedition. Let us now take a look at the results obtained.

(Continued on the J-DESC website)

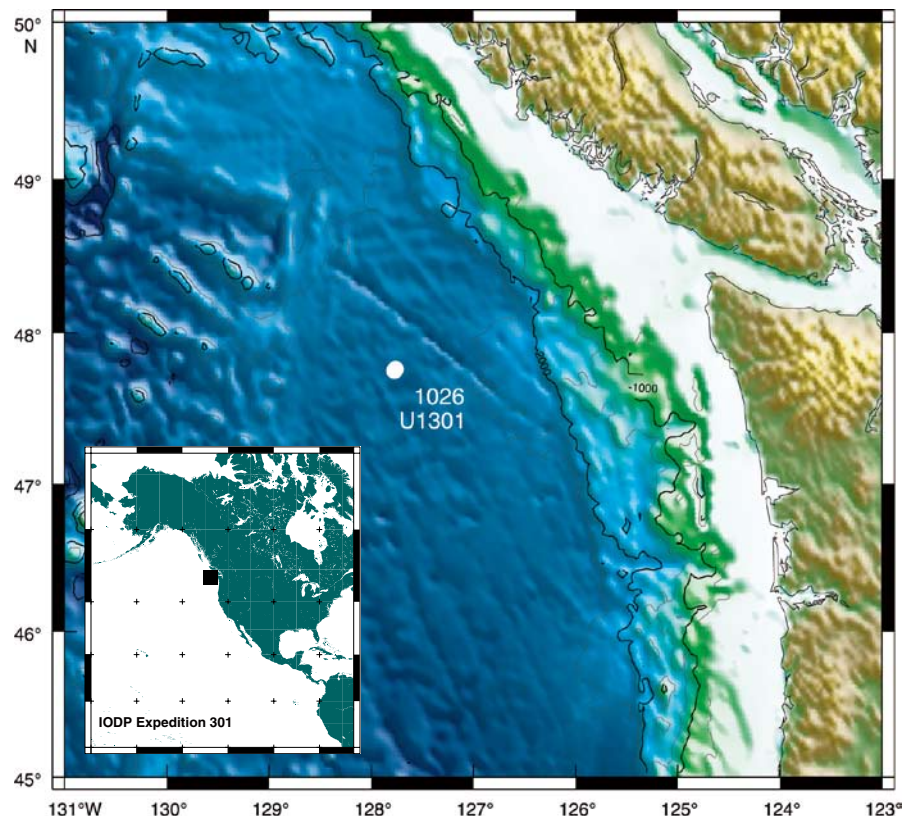


Fig. 1 Site Map of IODP Expedition 301 (courtesy of IODP-USIO)

Nankai Trough Seismogenic Zone Experiment (NanTroSEIZE): Acquisition of Great Earthquake Seismogenic Materials and Site Monitoring

Masataka Kinoshita
JAMSTEC
Institute for Research on
Earth Evolution



Great subduction earthquakes occur repeatedly in the Nankai Trough due to subduction of the Philippine plate. More than 60 years have passed since the 1944 Tonankai earthquake (M8), but according to the Headquarters for Earthquake Research Promotion (2001), the probability of another Tonankai earthquake occurring within the next 30 years is extremely high at 50%. Researchers in Japan and other countries are engaged in observations, experiments and analyses to throw light on the mechanism that generates and propagates subduction earthquakes.

A seismic structure survey conducted by Park et al. (2002) showed that seismic faults occur not only at plate boundary faults but also at splay faults. Analyses of the 1944 earthquake/tsunami records made it possible to infer which fault moved and to what extent (e.g., Ichinose et al., 2003, Baba and Cummins, 2005). These findings added a new dimension to the issue of spatial distribution in locked zones (asperities) and their activity patterns. Furthermore, the presence of seafloor scarp and cold seep communities along the base of the scarp has been shown to be indicators of fault activity (Ashi et al., 2002). The fault slip behavior is being approached from the rock mechanics angle by conducting various tests such as fracture and friction experiments based on past seismic fault and continental seismic fault drillings.

However, a unified fault slip theory covering the entire series from earthquake source nucleation to rupture propagation has not yet been established, and the deformation mechanism observable on a time scale from seconds to years has not yet been clarified. This is because the conditions and mechanical properties of deep fault scarps are not yet known, although the fault rheology model relies on the fault surface and the properties of materials in the surroundings.

This is where the objectives of the IODP Nankai Trough Seismogenic Experiment (NanTroSEIZE) lie. Its goal is to clarify the sliding characteristics of faults, deformation processes,

fluid flow behavior and other unresolved issues by drilling into the plate boundary fault system spanning the upper limit of the seismogenic zone at this subductions zone, which has produced the massive earthquake/tsunami off the Kii Peninsula, sample and carry out site monitoring. Specifically, the project deals with obtaining samples of seismogenic materials and placing instruments for long-term monitoring (a) in the sediment at the trough bottom which will be carried into the seismogenic zone in the future due to plate tectonics, (b) at splay faults (3.5 km from the seafloor) extending from the plate boundary to the seafloor, and (c) at plate boundary faults at a maximum depth of 6 km.

The IODP NanTroSEIZE proposal was drawn up in an international effort between 2001 and 2003. As the project will involve several expeditions by several drilling vessels, it was ranked as a Complex Drilling Project (CDP) and divided into an umbrella proposal constituting the main framework and several subject oriented drilling proposals. The project was adopted after undergoing official screening by the IODP Science Advisory Structure between 2004 and 2005. IODP subsequently set up the Project Team Management for implementing NanTroSEIZE.

NanTroSEIZE is scheduled to start in September 2007. In Stage 1, preceding the seismogenic riser drillings in 2008, five non-riser drilling expeditions will be conducted by the *Chikyu* and US drilling vessels to drill up to

a maximum depth of 1,400 m at six sites from the bottom of the trough to Kumano basin. The co-chiefs for the five expeditions have already been decided, while we are currently accepting applications from potential onboard researchers (deadline October 15, 2006). For details on the NanTroSEIZE project, please visit www.nantroseize.com.

Literature

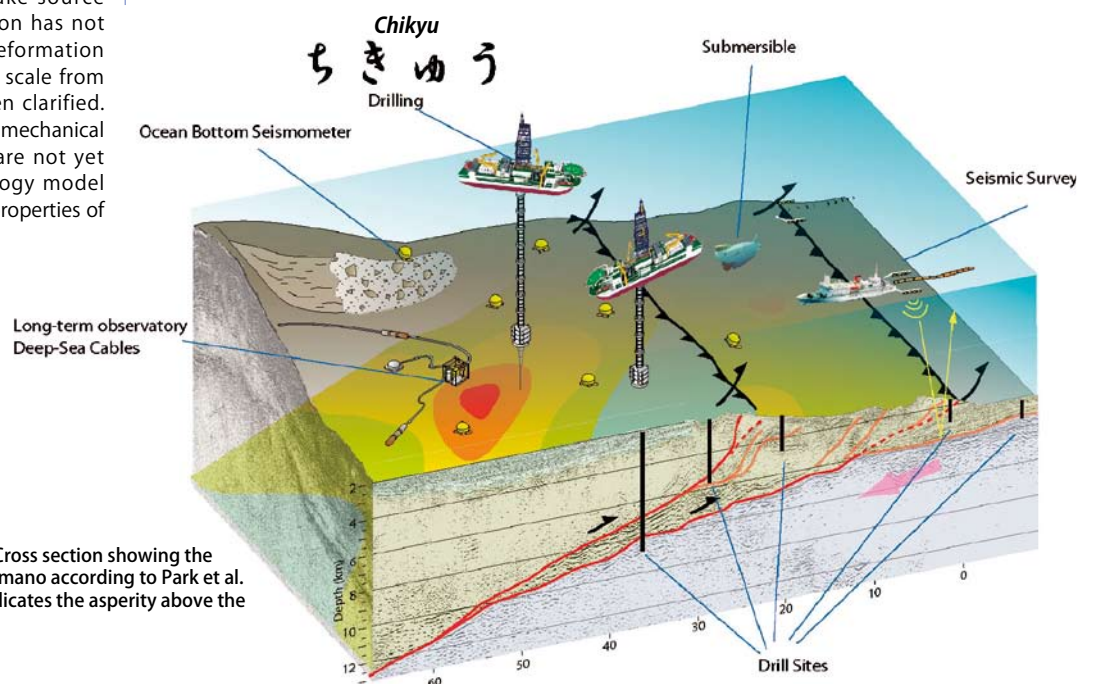
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NanTroSEIZE concept. Cross section showing the reflection profile off Kumano according to Park et al. (2002). The red spot indicates the asperity above the earthquake fault.

1st Japan Continental Drilling Research Meeting Held at Makuhari



Kentaro Omura

Secretary of Continental Drilling Section, J-DESC
National Research Institute for Earth Science and Disaster Prevention

On May 16 (Tuesday), 2006, the First Japan Continental Drilling Research Meeting was held as part of Japan Geoscience Union Meeting 2006 at the Makuhari Messe International Convention Complex.

To start with, Mr. Urabe, Chairman of J-DESC Continental Drilling Section, talked in detail about the import of the meeting, that is, bringing the research schedule accompanying drilling from the conceptual stage to the planning stage, and explained that it was an open-agenda meeting aimed at exchanging useful information. Next, the following subjects were broached and taken up in a question and answer session.

1) Drilling and research on volcanic islands

- (Earthquake Research Institute: Setsuya Nakada)
- 2) Drilling integrated groundwater monitoring wells for Tonankai/Nankai earthquake prediction (AIST: Naoji Koizumi)
- 3) Establishing geological references and boring plan for the Kanto plane (AIST: Kiyohide Mizuno)
- 4) Continental drilling research at NIED (NIED: Kentaro Omura)
- 5) Research into advancement of boring technology, drilling of control bores, development of research technology (CRIEPI: Kimio Miyakawa)
- 6) Drilling archean seafloor hydrothermal systems (finding traces of early biosphere) (Kyushu Univ.: Shoichi Kiyokawa)
- 7) Direct sampling of extremophiles in

- geothermal reservoirs (Tokyo Univ.: Tetsuro Urabe)
- 8) Drilling alluvial deposits in the Mekong Delta (Niigata Univ.: Masaaki Tateishi)
- 9) Supporting the Kochi Institute for Core Sample Research in promoting drilling research (JAMSTEC: Weiren Lin)
- 10) Geophysical anomalies accompanying vertical shaft drilling – Changes in water level and deformation (TRIES: Yasuhiro Asai)

The number of 45 participants exceeded expectations. Discussions were lively, and there were many opportunities for cooperation. It seems that the purport of this meeting was well received, and all participants agreed to make it a standing event by holding a second meeting next year.

10 Years of ICDP



Kiyoshi Suehiro

ICDP EC Committee Member
Director, JAMSTEC

I want to take you back over the past 10 years of ICDP. I have been involved with ICDP serving on the Science Advisory Group and Executive Committee over the past several years. First, please take a look at the progress map posted at <http://www.iodp-online.de/> to get an idea of what ICDP has been doing over the past ten years.

It all started on February 26, 1996, but of course, not all of a sudden. After implementation of the German drilling program KTB (1987-1994), scientific support from the International Lithosphere Program (ILP), and official acceptance at the OECD's Megascience Forum, the need for the establishment of a multilateral international program was recognized at the International Scientific Continental Drilling Conference in the summer of 1993 (1). In the background was the success of the international ODP (Ocean Drilling Program), with which ICDP shares its scientific rationale. The first drilling project funded by the ICDP was the Lake Baikal Drilling Project (1998-1999; Professor Kawai, PI).

In Japan Professor Niitsuma of Shizuoka Univ. et al. had been active in deep scientific drilling since the 1980s with the support of the Science Council of Japan. From the 1990s, the importance of collaborating with ocean drilling (OD21) and ICDP began to be recognized. Japan officially joined ICDP in 1998, but had been involved since its inception. In October 2000, JAMSTEC exchanged an MOU with the DFZ, the funding organization on the German side.

At the 2nd ICDP Conference in the spring of 2005, the following future perspectives were discussed on the basis of ICDP's activities over the past ten years (2). Each of the research themes is both directly and indirectly deeply relevant to the healthy and safe existence of Japan. They include climate dynamics and the global environment, meteor impact mechanics, active faults and earthquake mechanism, geobiosphere, mineral resources, volcanic and geothermal systems, hotspot volcanoes and igneous rock zones, and convergent plate boundary and collision zones. In fact, Japanese researchers have been involved in many of these projects. For example, the magmatic conduit drilling at Mt. Unzen and Taiwan Chelungpu reverse fault projects were promoted under Japan's leadership and partnership.

I think the key to ICDP's success lies in establishing primary targets in earth science, the right combination of scientific and technological progress, and tackling tasks related to earth science through skillful cooperation between worldwide research projects. One also senses a policy of "Let the best person do the best job and let the world benefit from the results".

My sincere respect goes to GFZ for their leadership.

References

- (1) Scientific Rationale for Establishment of an International Program of Continental Scientific Drilling, 1994.
- (2) Continental Scientific Drilling 2005: A Decade of Progress and Challenges for the Future, 2005.



The German Continental Deep Drilling Program (KTB), which was instrumental in establishing the ICDP. The main bore (approx. 9 km) and pilot bore (approx. 4 km) are currently still used for ICDP experiments.



ICDP Drilling Proposals approved for 2006



Naoyuki Fujii

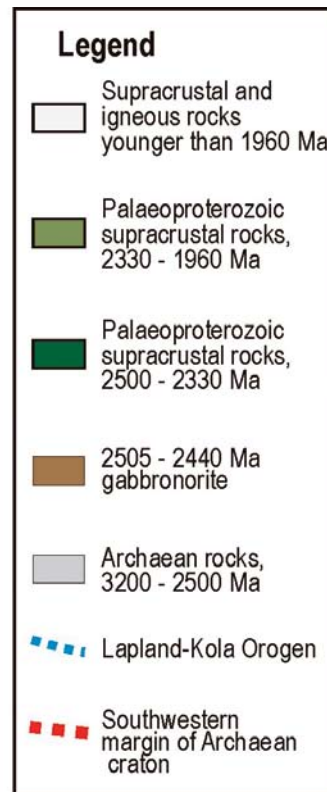
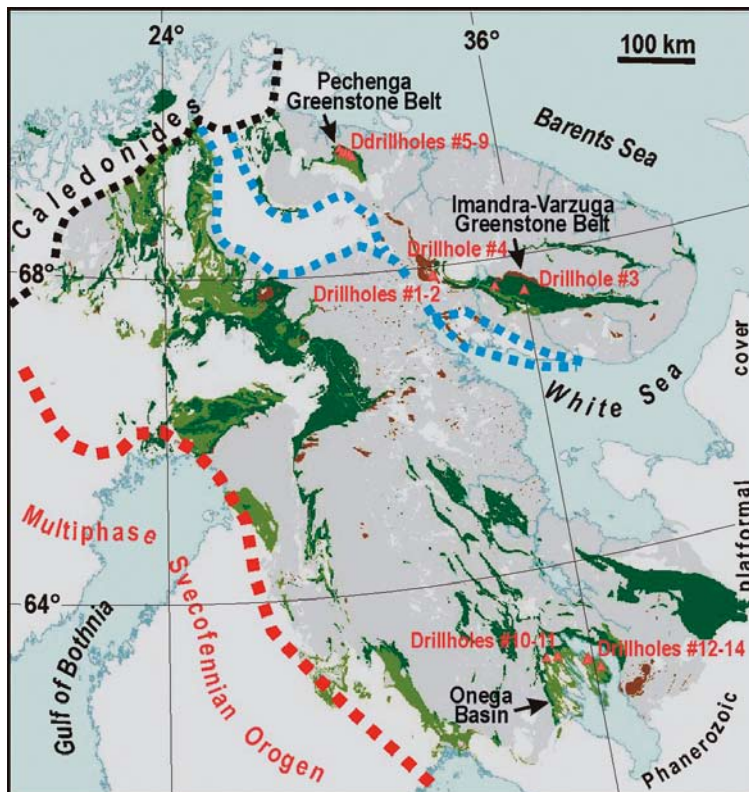
Chairman, ICDP Japan Implementation Committee
Faculty of Science, Shizuoka University

In March 2005, ICDP staged a symposium to mark its tenth anniversary. The themes at the symposium were divided roughly into nine fields, and the future course of drilling science and programs was discussed based on the findings obtained up to now. The related report was considerably delayed, but is now scheduled to be issued shortly in the form of a pamphlet. Of the four drilling proposals discussed by the Scientific Advisory Group in 2006, two were adopted by the Executive Committee/Assembly of Governors, while eight out of ten workshops were approved. There were also five proposals submitted by the Technical Support Group. There were about five proposals in which Japanese researchers are involved, including two workshops under the title "Monitoring of Nankai Trough by an Ocean/Continental Drilling Shaft Network" proposed by Professor Sagiya (Nagoya Univ.) et al., and "Drilling at the Northernmost Limit for Coral Reefs" proposed by Professor Iryu (Tohoku Univ.) et al., both of which scored very high in the approval process. We will here go into some of the details of the approved drilling proposals.

One of the approved proposals, FAR – DEEP (Fennoscandian Arctic Russia – Drilling Early Earth Project), addresses a 500 million year interval defining the Archaean-Palaeoproterozoic transition (APT: 2500-2000 Ma) in northwestern Russian Fennoscandia, characterized by a series of unprecedented environmental upheavals out of which the nascent aerobic earth system emerged. In other words, in the course of these 500 million years the earth experienced intracontinental rifting, mafic vulcanism and deposition of banded iron formation. This project aims to resolve the major outstanding problems surrounding the earth's environmental evolution, which include: (1) carbon, sulfur, phosphorus and nitrogen cycles, (2) change in the redox state of the mantle, (3) the timing of the rise of oxygen in the earth's atmosphere and oceans, and (4) biological evolution. In fact, the project is to core 14 drillholes totalling 3740 m to obtain samples that will cover nearly the entire 500 million years of APT. As the cost of this project is somewhat difficult to estimate at this point, the grant awarded is still provisional and will

be appropriately amended after study by the ICDP-OSG.

The other approved proposal (Shallow-Water Drilling of the New Jersey Continental Shelf), which is part of the Transatlantic Drilling program carried out in collaboration with IODP, aims to clarify the rates of global sea-level change from the Oligocene to the present by drilling the New Jersey continental shelf off the East Coast of North America. Recently programs implemented by collaboration between IODP and ICDP are being touted as the key to achieving scientific targets, and this project is believed to be a typical example of this. As to the history of this project, it was originally approved by ICDP in 1999 and granted \$500,000, but was resubmitted when the technical problems encountered in drilling and sampling unconsolidated sandy sediment for oxygen-18 dating were finally overcome. However, with much time having passed since approval and a number of subsidiary drillings and site surveys having been added, the ICDP updated the project contents and requested a resubmission.



Area of the FAR-DEEP project in northwestern Russian Fennoscandia (located at 68° N, 36° E) and distribution of Paleoproterozoic rock formations (courtesy of ICDP, adapted from Koistinen et al. 2001).



J-DESC's Education & Outreach Activities

J-DESC is not only engaged in promoting earth drilling science within Japan, but also actively pursues education and outreach activities. We are involved in a wide range of undertakings aimed at bringing earth drilling science closer to people's understanding, and issuing this newsletter is one of them.

1st IODP Post-Expedition Lecture

Almost two years have passed since the start of drilling research under the IODP, and already over 70 Japanese researchers have taken part in expeditions. We have reached the stage where post-cruise meetings are being held for the initial expeditions and the related research findings are consolidated for each expedition.

Wanting to introduce this research outcome to Japan's research community, the Japan Drilling Earth Science Consortium (J-DESC) regularly puts together IODP post-expedition lectures, the first of which was held on May 19, 2006, at the auditorium of the Ocean Research Institute of the University of Tokyo. The meeting featured reports on the research outcome of Expeditions 301, 302 and 303 as well as presentations and poster exhibits by onboard researchers focusing on the subject of future IODP expeditions.

Main Presentations :

- Exp. 301 Juan de Fuca Hydrogeology: Hydrothermal circulation and basement

microbiology at the eastern flank of Juan de Fuca Ridge
(Tetsuro Urabe [Tokyo Univ.] et al.)

- Exp. 302 ACEX Arctic Coring Expedition: Environmental variations in the Central Arctic Ocean
(Kozo Takahashi [Kyushu Univ.] et al.)
- Exp. 303 North Atlantic Climate Variations: Ice sheet-ocean atmosphere interactions
(Tokiyuki Sato [Akita Univ.] et al.)
- IODP – Where we are and where we go
(H.C. Larsen [IODP-MI] et al.)
- Nankai Trough CDP Drilling Program
(Masataka Kinoshita [JAMSTEC] et al.)

Organized by :

Japan Drilling Earth Science Consortium (J-DESC)
Ocean Research Institute of the University of Tokyo
Japan Agency for Marine-Earth Science and Technology (JAMSTEC)



Around 70 onboard researchers, young researchers and college students participated.

We hope to post the date of the next post-cruise meeting on the J-DESC website and will notify those on the mailing list at that time.

IODP University & Science Museum Campaign

The "IODP University & Science Museum Campaign" has been conducted throughout Japan since 2004 by the Japan Drilling Earth Science Consortium, in co-sponsorship with the independent administrative corporation JAMSTEC.

With this campaign, we intend to introduce IODP to students and postgraduate students at Japan's universities, line up onboard researchers to participate in IODP research cruises, and develop the human resources needed to support the IODP science community by assuming a central role in Japan's future IODP proposals. At the same time, our outreach activities at science museums throughout the regions are aimed at building up relations with science museums while appealing IODP and

what it stands for to a wide audience, especially school children who will be Japan's future generations of scientists.

The campaign started in 2006 with events staged at Kanazawa University (May 6) and Shinshu University (August 5-6), with a large number of visitors coming to the venue. Three other cities are to follow this year (see the J-DESC website for details).

Venues who wish to host the campaign may contact us at any time. In principle, we stage the event at a university cum science museum. We plan to ask the host university to act as liaison with the local science museum, do PR in the region, and introduce the university's involvement in IODP.



Campaign event at Kanazawa University.

Booths showcasing IODP

J-DESC sets up booths showcasing IODP and dispatches informed personnel to academic and scientific meetings and events related to earth drilling science. This fiscal year, we have already set up booths at the following venues, which proved to be very popular.

At the *Chikyu* Open House in June, a booth was set up in the research section onboard the *Chikyu* and JAMSTEC researchers were invited to explain IODP programs to participants.

Booths set up in FY 2006 :

- Japan Geoscience Union Meeting 2006 (May 14 – 17: Makuhari)
- Open House at Japan's deep-sea drilling vessel, *Chikyu* (June 12: Kobe, June 19: Osaka)
- AOGS: Asia-Oceania Geophysical Society (July 10 – 14: Singapore)
- 17th International Sedimentological Congress (ISC) 2006 (August 27 – September 1: Fukuoka)



Visitors to the J-DESC booth onboard the *Chikyu* listening attentively to explanations provided by Professor Yoshiyuki Tatsumi (JAMSTEC).

FY 2006 Schedule of J-DESC Activities

Month	J-DESC	IODP related	ICDP related	Other
2006 April	● 4th J-DESC General Meeting (4/9 ORI)		● EC (4/28-29 Reykjavik, Iceland)	● IODP-ICDP Town Hall Meeting (4/4 Vienna)
May	● 1st IODP Post-expedition Lecture (5/19 ORI)	● Post-cruise Meeting Exp.301 (5/9-10 Alaska) Exp.302 (5/22-24 Italy) ● #6 SSEP (5/29-6/1 Potsdam, Germany)		● IODP EuroForum 2006 (5/8-9 Cardiff, UK) ● Japan Geoscience Union Meeting 2006 (5/14-18 Makuhari) ● IODP-ICDP Fault Zone Drilling Workshop (5/23-26 Miyazaki)
June	● IODP University & Science Museum Campaign 11th Event (6/5 Kanazawa University) ● Chikyū Open House (6/12 Kobe, 6/19 Osaka)	● OTF (6/5-6 Washington) ● #6 EPSP (6/22-23 Paris) ● #3 STP (6/26-28 Helsinki) ● #3 EDP (6/27-29 Germany)	● AOG (6/30 Reykjavik, Iceland)	
July		● Post-cruise Meeting Exp.310 (7/18-22 Texas) ● IODP Council (7/12-13 Washington) ● #1 IIS-PPG (7/7-8 Netherlands, The Hague) ● #1 SASEC (7/11-12 Washington) ● #6 SSP (7/24-26 Sapporo) ● IODP Japan Science Planning Committee (7/25)	● ICDP Japan Implementation Committee (7/31) ● ICDP Japan Coordination Committee (7/21)	● AOGS (7/10-14 Singapore)
August	● IODP University & Science Museum Campaign Special Event (8/5-6 Shinshu University)	● Post-cruise Meeting Exp.307 (8/23-25 Yokohama) ● Exp.310 Review (8/2-3 Washington) ● #8 SPC (8/28-31 Bergen, Norway)	● Domestic proposals Call for participation	● ISC2006 (8/27-9/1 Fukuoka)
September				● Mission Moho Workshop (9/6-9 Portland) ● Continental Break-Up Workshop (9/15-18 Switzerland) ● Geological Society of Japan #113 Annual Meeting (9/16-18 Kochi)
October	● 2nd IODP Post-expedition Lecture (10/28 JAMSTEC Tokyo Office) ● IODP University & Science Museum Campaign 12th Event (10/14-15 Tohoku University)	● Post-cruise Meeting Exp.308 (10/7-8 Spain) ● E&O TF Meeting (10/12-13 Bremen, Germany) ● SSAS Review WG (10/31 Odawara)	● Deadline for domestic proposals (10/15) ● ICDP Training (10/9-13 KTB, Germany)	● Subseafloor Life Workshop (10/3-5 Vancouver) ● Seismological Society of Japan (10/31-11/2 Nagoya) ● IODP-ICDP Chicxulub Impact Crater Workshop (10/12 Potsdam, Germany) ● Scientific Ocean Drilling & Geohazards Workshop (10/25-27 Barcelona, Spain)
November	● IODP University & Science Museum Campaign 13th Event (11/17-18 Kumamoto University)	● #2 SASEC (11/1-2 Odawara) ● #7 SSEP (11/13-16 Sapporo)		
December		● #4 STP (12/7-9 San Francisco) ● #2 IIS-PPG (Houston)	● ICDP Japan Implementation Committee	● AGU (12/11-15 San Francisco) ● IODP Town Hall Meeting (12/14 San Francisco AGU)
2007 January		● #7 EPSP (1/9-10 Yokohama) ● #4 EDP (1/17-19 New York)	● Proposal deadline (1/15)	
February		● #7 SSP (2/20-22 San Diego)	● SAG	
March	● IODP University & Science Museum Campaign 14th Event (3/3-4 Nagoya University)	● #3 SASEC (3/22-23 Video Conference) ● #9 SPC (3/4-7 Osaka)	● EC ● EC Draft preparation	

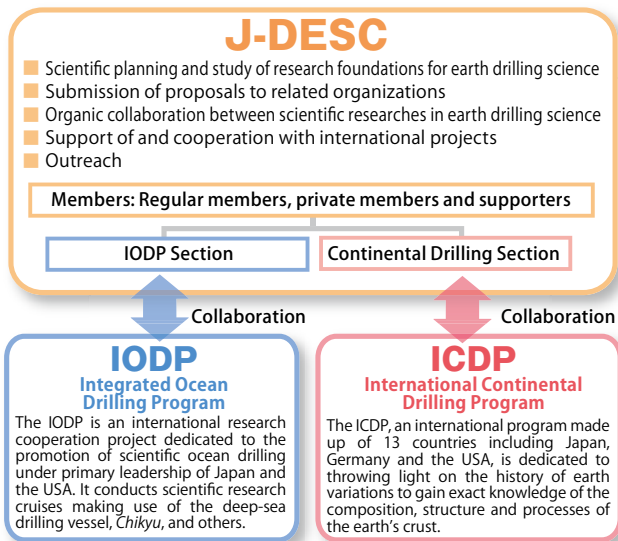
■ **IODP** SASEC: SAS Executive Committee, SPC: Science Planning Committee, SSEP: Science Steering and Evaluation Panel, SSP: Site Survey Panel
EPSP: Environmental Protection and Safety Panel, STP: Scientific Technology Panel, EDP: Engineering D

■ **ICDP** SAG: Science Advisory Group, EC: Executive Committee, AOG: Assembly of Governors

What is J-DESC (Japan Drilling Earth Science Consortium)?

J-DESC was established in February 2003 as an organization to serve the promotion of earth drilling science in Japan, drawing its members mainly from universities and national research organizations (46 regular members as of August 2006). It consists of an IODP Section and a Continental Drilling Section.

Each of these sections collaborates respectively with the IODP (Integrated Ocean Drilling Program) engaged in ocean and the ICDP (International Continental Drilling Program) engaged in continental drilling.



Mailing List

We have set up a domestic mailing list in an effort to build up a network within Japan dedicated to the exchange of opinions on IODP and ICDP related research information. If you would like to be put on our mailing list, please contact the J-DESC Secretariat (e-mail: aesto-iodp@aesto.or.jp).

Our Website

Please visit the J-DESC website at: <http://www.j-desc.org>



Various information on scientific drilling (proposals, calls for participation in expeditions, etc.) is posted on this site.

IODP website: <http://www.iodp.org>

ICDP website: <http://www.icdp-online.de>

<http://www.jamstec.go.jp/jamstec-j/international/icdp/> (Japan)



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