

# The J-DESC Core School: Developing human resources to fill the ranks of young earth science researchers

The J-DESC Core School opened in 2007 is one of several approaches taken by J-DESC to develop young researchers in drilling earth science. Besides teaching and enhancing research skills and measuring techniques, its objectives are to broaden the researcher base and provide opportunities for member organizations to interact. The J-DESC Core School offers a variety of courses ranging from introductory courses teaching the basic skills required for core analysis to more specialized courses providing applied skills. To promote active participation in the Core School, J-DESC contributes up to 10,000 yen to the travel expenses of all participating students of member organizations.

Good results were achieved up to now with the following courses:

- Core analysis basic course
- · Core isotope analysis course
- Core description expert course
- TATSCAN non-destructive analysis course
- Micropaleontology course
- Paleomagnetics course
- · Logging basic course

J-DESC also organized and handled applications for the Chikyu Onboard Research School sponsored by the Center for Deep Earth Exploration (CDEX), and the ICDP Training course offered by the German Research Center for Geosciences. International Continental Scientific Drilling Program. In the future, J-DESC will expand its scope by adding new courses and other activities to provide a broader coverage of the many fields related to earth science



of the J-DESC newsletter, we would like to introduce you to the courses held up to now by the J-DESC Core School, one of J-DESC's key approaches to the development of young researchers, and let you listen to the voices of those who participated in these courses. Please also note that, in addition to the courses held so far, J-DESC is always willing to examine proposals on lectures/courses related to drilling earth science that can



Photo at Chikyu Onboard Research School on 2008.

be organized within the framework of the J-DESC Core School.

Further information such as the date for filing applications for enrollment in the courses will be posted on the J-DESC website (www. j-desc.org) and will be sent to those on the Earth Drilling Science Mailing List. Please contact the J-DESC Secretariat (info@j-desc.org) if you would like to enroll in the J-DESC Core School or propose a new course.

# J-DESC Mailing List

The J-DESC Secretariat maintains mailing lists related to IODP, ICDP, micropaleontology and the Mohole Project, which it uses to disseminate and share information as necessary. For inclusion in these mailing lists, please e-mail the J-DESC support (info@j-desc.

org), indicating 1. your e-mail address, 2. name, 3. affiliation, and 4. the mailing list(s) you wish to be added to (make the subject of your e-mail: Earth Drilling Science Mailing List).

# Core Analysis Basic Course

Minoru Ikehara

Advanced Marine Core Research Center, Kochi University

The core analysis basic course, the cornerstone of the Core Analysis School started in 2006, provides an introduction to core analysis techniques. Its objectives are to offer students an opportunity to learn, through lectures and practical training, in a systematic manner as is rarely offered by a university curriculum, how to macroscopically classify the lithofacies of core samples, prepare and view smear slides, and perform

non-destructive measurements using a multi-sensor core logger and spectrophotometer. Practical training is designed to let students observe the variations of sediment in core real samples collected in the Sea of Japan, as well as different types of sediment core from the seafloor of other parts

of the world, both with the unaided eye and under the microscope, Since the Kochi Core Center, the school venue, serves both as IODP repository and as analysis base mainly for core samples, young researchers and students can also get a virtual experience of the core flow onboard the Chikyu or the JOIDES Resolution and the flow of analyzing



Participants larning basic visual core description

continental drilling core. Up to now, more than 100 young researchers and students have participated in the courses and are now practically applying their newly gained knowledge and techniques to their respective research tasks.



Group photo on March 2009

# Core Isotope Analysis Course

Hiroyuki Kikuta Kochi Institute on Core Reserach, JAMSTEC

The core isotope analysis course aims to provide small groups of post-graduate students (including those slated to enter graduate school in April) with applicable technical skills in isotope analysis of geochemical samples and in core analysis. The various isotopic compositions of geochemical samples are put to wide use in dating based on variations in the origin of their constituent materials, and in the environment and processes leading to the formation of sediment. To be able to apply this method, however, it is

necessary to acquire analytical techniques and know-how, in addition to textbook knowledge. This course is designed to teach the skills necessary to analyze actual samples using the Kochi Core Center's high-

Smear Slides being

prepared by participants

precision isotope analysis equipment, including preprocessing of samples using specialized equipment, operation of various equipment systems, and evaluation and analysis of data. We





Snapshot in the course

are waiting for enthusiastic graduate students and researchers to participate in this course.

# Core Description Expert Course

Tatsuhiko Sakamoto

This course is designed to provide pre-cruise training to prospective onboard scientists who plan to apply for IODP expeditions. The first course, targeting mainly sedimentologists whose participation in an IODP expedition had been approved, whose applications to participate as onboard scientists were being processed, and who wished to join as onboard scientists in the near future, was a special 3-day training course dealing with onboard description of core samples (Visual Core Description: VCD) and was held from March 19 to 21, 2008 at the Kochi Core Center. There were a total of 15 participants. As part of the assistance rendered to onboard scientists, J-DESC provided approved participants in an IODP expedition with full participation and travel expenses.

The course consisted of a combination of lectures and practical training and closed with a presentation meeting in

English. The following lectures were offered: "To be a sedimentologist onboard", "Using smear slides to observe sediment and classify lithofacies", "An introduction to Corelyzer", "IODP core curation and handling of legathy cores", "Preparation of core summary and identification of lithofacies units", "The work of an onboard sedimentologist - by example of Exp. 303", "Core strata and correction of structural orientation", "Core description onboard the Chikyu and use of J-CORES", "Role of research section onboard the Deep Sea Drilling Vessel Chikyu", "Improve your English skills", "Methods of stratigraphic correlation", and "Integrated logging of core samples and boreholes". As part of practical training, participants formed groups of 2 to 3 by expedition and practiced on real core specimens how to examine lithofacies and smear slides. To prepare them for onboard VCD, they received practical training in

preparing VCD schemes, VCD procedure, terminology, viewing of smear slides, assigning lithological names, preparation of core and site summaries, etc. Practical training further included training in the basics of core description using IODP legathy cores, sampling of legathy cores under guidance of the IODP curator to collect specimens for smear slides, learning how to assign lithological names based on representative smear slides, time trial training in core description within a fixed period of time, and preparation of lithological summaries (core summaries). Practical training concluded with data analysis, report preparation, etc. within the framework of an onboard site summary meeting. At the meeting, each group summarized its practical training and measurement results and announced these in English at a presentation meeting and subsequent Q&A session.

# Micropaleontology Course

Noritoshi Suzuki

Tohoku University

The objective of the microfossil course was to train students and novices interested in microfossils, as well as researchers in micropaleontology to carry out research work onboard IODP vessels. The microfossil course had its beginnings in the J-DESC sponsored Microfossil Summer School held in 2004, and since the J-DESC Core School was set up, the Microfossil Course and the Microfossil Summer School have been held in parallel, with Tohoku and Akita universities as venue. 2009 marked the third year of the Microfossil Course. Special about this course was that students were exposed to team teaching by experts called in for the purpose, and were given an opportunity to practice on

real specimens according to the motto "Seeing is believing". This was a rare chance to attend content-based lectures given by leading researchers in the field. It was moreover an opportunity to take a look at top grade specimens from Tohoku University's microfossil collection. The course covered three days of lectures and practical training in the lab. The number of participants was limited to around 12 to 15 persons per taxon to ensure that each researcher has full use of the facilities. On the morning of the first day, participants were given a basic lecture on taxonomic groups and on how research in micropaleontology ties in with the work of the IODP. Starting in the afternoon and continuing on the second day, students

were given a chance to observe real specimens to enrich their understanding of taxonomic groups. During the morning of the third day, there was special lab training and a Q&A session. We hope that when students and researchers are back in their respective organizations, they will be able to explain to others what they have learned, for example, what an XX microfossil actually is. In cooperation with about a dozen micropaleontolgists from all over Japan, the school offered the opportunity to study foraminifera, calcareous nannofossils, radiolaria, diatoms and ostracoda. Discussions are currently in progress as to the possibility of letting different universities take turns in hosting the school.



Snapshot in the course



Man-to-man style lecture by specialists

# TATSCAN Non-destructive Analysis Course

Tatasuhiko Sakamoto

This course was co-sponsored with JAMSTEC's Institute for Research on Earth Evolution, Past Global Changes Research Program, and held at the latter venue from June 20 to 22, 2007. Its main objective was to familiarize small groups of participants with the principles and methods of, and impart basic knowhow in non-destructive analysis of seabed sediment core, core samples, etc. using state-of-the-art analyzing equipment. The course, targeted at Chikyu onboard researchers and engineers as well as other researchers, engineers, graduate students and students engaged in or interested in non-destructive analysis. had six participants. The lecturers were Tatsuhiko Sakamoto, Koichi

lijima, and Yuko Sugano (JAMSTEC). The course consisted of lectures and practical training. The lectures covered subjects from basic to advanced non-destructive core analysis and equipment development, operation of an X-ray fluorescence core logger and sample preparation, etc. Practical training included various quantitative experiments using the prepared specimens, and evaluation experiments to show the influence of water content on quantitative X-ray fluorescence analysis. In addition, specimens brought in by the participants were subjected to various analyses such as non-destructive analysis of alterations in granite core, analysis of element distribution on the



surface of stalactite, and analysis of elemental distribution, color distribution and structural distribution in freshwater lake core. Practical training concluded with everyone announcing the results of their measurements followed by a Q&A session, and the writing of reports was given as homework.

# Paleomagnetics Course

Toshitsugu Yamazaki

Geological Survey of Japan

As IODP considers paleomagnetic measurements an important part of the non-destructive measurement routine, any expedition will definitely have researchers in this field onboard. The first thing expected of an onboard paleomagnetics researcher is to determine the magnetostratigraphy of core. The next steps are to develop a research strategy based on the measurement results obtained onboard, take samples using U-channels or the like, and follow this up by more



Snapshot on August 2008

detailed research on land. On an expedition where sediment is cored, core sections are measured while being moved through the pass-through superconducting magnetometer (SQUID) installed onboard. Different from measuring individual samples (cube samples), performing pass-through measurements on core sections and U-channels and interpreting the results poses certain challenges, which require a fair amount of knowledge. For this reason, the foremost objective of the paleomagnetics course was to impart the knowledge required for onboard research by training students in paleomagnetic measurement at the Kochi Core Center using the same pass-through SQUID system as is installed on the Chikyu and JOIDES Resolution drilling vessels. At the same time, the Kochi Core Center boasts state-of-the-art equipment for measuring rock magnetism, including a low temperature magnetic property measurement system (MPMS) and a vibrating sample magnetometer (VMS), which it is hoped will be used after expeditions for joint research and achieving results. Course participants were also trained in the basic use of this equipment and what it can be used for.

The course, a three-day school for novice students and other young talent interested in paleomagnetics, comprised lectures delivered by a number of experts and training in measuring actual samples, and is planned to be held every other year (next in the summer of 2010). It is hoped that the course will motivate students and young researchers to take up onboard and marine core research within the IODP framework



Vibrating Sample Magnetometer (VSM)

# Logging Basic Course

**Outline** 

Yasuyuki Nakamura ORI, the University of Tokyo

The introductory logging course deals with geophysical logging, a method used to obtain rock property values, for example, when the core recovery rate is low. Its objective is to introduce students to the basics of logging by providing them with basic knowledge of the tools and measuring methods used in standard logging, and letting them practice data analysis using real data and software. The first school session held for two days in July 2008 had 12 participants, the majority of them post-

graduate students. It is planned to

continue this program on a once-a-year



Snapshot of the course

#### Attendance report

On July 26-27, 2008, the J-DESC Core School's two-day introductory logging course was held at the Yokohama Research Institute of JAMSTEC. As I am researching seismic reflection for my doctoral course, logging was of great interest to me, so I decided to join instantly when I heard of this course being held.

During the tightly packed two-day schedule, I filled a 1-cm thick notebook with lecture notes. The lectures given by the dedicated team of lecturers took place in an enthusiastic atmosphere, accompanied by frequent questions from the participants as well as comments by other lecturers.

In the afternoon of both days, participants formed groups of 3 to 4 to practice reading in and interpreting data. Using data obtained by ODP and IODP, the participants made extensive use of the knowledge they had just



Snapshot of presentation

Hisashi Oiwane The University of Tokyo

gained and took on the challenge of data interpretation. Each group, latched on to a lecturer, and while asking plenty of questions, was preparing for the research presentation meeting scheduled at the end of the course.

On the evening of the first day, an informal get-together was held. Nearly everyone attended, and after discussing a wide range of topics, the assembled participants and lecturers quickly warmed up to each other. With everyone having loosened up, even more questions were asked during the lectures and practical training sessions on the following day, lending the venue a lively academic atmosphere.

At the research presentation meeting scheduled at the end of the course. a spirited debate took place, while the audience and lecturers were asking pointed questions. Following the meeting, each participant was handed a certificate of completion. The two days of the course flew by quickly, but participants were able to both acquire a lot of knowledge and enjoy the fascinating aspects of logging to the fullest, making this a very satisfying experience. I would definitely be interested in an intermediate (advanced?) course if one were to be offered in the future.

# Reporting on the Chikyu Onboard Research School

Ayu Takahashi The University of Tokyo

I had become engaged in a general project investigating submarine volcanoes in my third year at university. The senior researchers around me being specialized in ocean floor geotectonics, "I'd like to get onboard the Chikyu" naturally often was a hot topic when discussing future survey plans. In this kind of environment, I myself started thinking that one day I'd like to get onboard the Chikyu and see with my own eyes what kind of super-ship this is. That's why I decided on the spot to join when I saw the invitation to apply for the Onboard Research School.

In the short period of only three days, the course offered all kinds of practical training that turned out to be a rich and rewarding experience, especially for having a chance to do analyses in a field other than my own. What kind of information can be derived from multiple

analyses of the same data carried out by different people? What conclusions can be drawn from a comprehensive discussion of this information? — Although I did my research work in my own field of specialty, this course helped me to realize my role within the team and how my field of specialty ties in with the overall project.

I was also very surprised at how much consideration had been given to all aspects of the training process from the equipment layout to the technicians who participated in the work, to make sure that research would proceed smoothly and systematically. The Chikyu, I felt, offers everything one needs to pursue effective scientific study. I am convinced that this was a valuable experience that will help me in the future to become a full-fledged onboard researcher and do research work on an interdisciplinary

team.

I would like to thank the team at J-DESC and all the others involved in this effort for making this valuable opportunity possible.



Group photo of participants

# Introduction to the ICDP Training Course and Attendance Report

Kentaro Omura

National Research Institute for Earth Science and Disaster Prevention

One important pillar of the activities of the ICDP (International Scientific Drilling Program) is to invite participants from the ICDP member countries to attend annual training courses. The intent of these courses is to teach the fundamentals of drilling related techniques and methods, and introduce the different technical terms used by scientists and drilling engineers at the drill site in order to minimize communication problems, thus laying the groundwork for successful scientific drilling and achieving of maximum results. Through lectures and field trips, the training courses aim to provide a better understanding of drilling and measuring techniques used in scientific drilling, as well as data interpretation. In the interest of practical experience, the courses are sometimes integrated with an ICDP drilling project in progress and held near a drill site. The ICDP Training Course is open not only to scientists and engineers in charge of drilling projects, but also welcomes those who will be planning drilling projects in the future. The responsible organization for the training course is the Operational Support Group of ICDP (OSG). The program itself is free, and the OSG also subsidizes travel and accommodation expenses.

Let me share with you some of my experiences from participating in last year's course. The course was held

at the former drill site of the German deep drilling project KTB (Kontinentales Tiefbohrprogramm (Continental Deep Drilling Program)). Although the project itself is completed, the drilling rig was left standing and the KTB GEO Center (Geo-Zentrum an der KTB, http://www. geozentrum-ktb.de/) has been using the drilling well for research purposes, including water injection experiments, and turned the site into a base for educational, public relations and promotional activities. The five-day schedule was filled with lectures, using mostly slides, to deal with subjects such as drilling technology, mud circulation technology, borehole measurements and interpretation, borehole stability, hydraulic testing, analysis of cores and cuttings, and data management in a concrete manner that gave participants the feeling of actually being at the drill site. We also took a field trip to a

drill site where a project to develop geothermal energy using the latest type of rig is underway, and where we were overwhelmed by the sheer power of super-deep drilling.

The most important characteristic of the ICDP Training Course is that it takes an overall approach to everything one needs to know to participate in a real

drilling project, from proposing a project to drilling related technologies and measurements, and all the way to data management. The fact that this course has been held annually ever since foundation of the ICDP makes one sense the passion with which the ICDP views heritage, education and enlightenment in the field of drilling related technology. On the Japanese side, it is J-DESC which is inviting and organizing participants. There were also many participants from Japan, and I hope that ever more will take advantage of this kind of valuable opportunity to swell the ranks of people interested in and becoming active in the field of scientific drilling.

Further details about this training course are available at the URLs given below.

http://www.icdp-online.org/ http://www.j-desc.org/m3/ coreschool/ICDP\_drilling.html



Snapshot of lecture on 2008

# Support for Japan-based paritipants in IODP

J-DESC assists participants in IODP research projects with travel and research expenditures and grants funds. Assistance covers the period from before going onboard for research to the time after deboarding. The details are as follows.

# Assistance with preparing an IODP proposal

IODP assistance related to the preparation and revision of an IODP proposal covers the following: (A) investigative research including the entire series of activities from setting up a workshop to performing a feasibility study (1 million yen or more per case: disbursed at the start of the fiscal year), and (B) the cost of some activities such as meetings and proposal preparation (less than 1 million yen per case: disbursed as needed, but subject to budget restraints).

More concretely, it covers the holding of preparatory meetings and workshops to consolidate the proposal, the feasibility study covering the preparation of the proposal (travel expenses, cost of analyses, etc.), miscellaneous expenses incurred in preparing an IODP proposal (cost of meetings, revision of English documents, etc.), as well as items such as revision of the English version of the ED (Engineering Development) proposal.

## Pre-cruise training

Pre-cruise training (PCT) refers to the process of providing technical courses for Japanese IODP participants prior to a drilling expedition and holding a wrap-up meeting covering the objectives, responsibilities and strategy of the expedition. Venue and period of these events are left up to the respective scientific party. The actual expenditures for travel between the venue and the member organization, and accommodation will be covered.

### **IODP** expedition support

Travel expenses (transportation, accommodation, per diem) from the member organization to the point of embarkation, and from the point

of disembarkation to the member organization, will be covered according to the rules. Not covered is the period spent onboard the vessel. Also covered are the expenses of obtaining a visa, a medical checkup and immunization as applicable. In addition, we will cover the travel expenses (transportation, accommodation) of persons having to participate in the mandatory helicopter evacuation drill, HUET (Helicopter Underwater Escape Training), in order to board the deep-sea drilling vessel, Chikyu.

#### After-cruise works

After-cruise work (ACW) refers to analyses not completed during an IODP drilling expedition, analyses found to be necessary after an expedition, and post-expedition analyses planned in advance. The actual expenditures for travel between the member organization and the point of execution, and accommodation will be covered for after-cruise work meeting the following conditions:

- ☐ The applicant is a member of an IODP drilling expedition scientific party (including onshore parties) recommended by J-DESC.
- ☐ The application is filed within the postcruise moratorium.
- ☐ The subject is data that will be used for a research project adopted during an IODP research expedition (excluding independent research).
- ☐ The analysis concerns core samples and measuring data collected while onboard an expedition vessel.
- ☐ The work will be carried out at an institution in Japan, such as the Kochi Core Center.
- ☐ The applicant will be informed of the decision made by a subcommittee

- for evaluations of J-DESC. Please file your application at least two weeks in advance as the screening process may take some time.
- ☐ There may be cases where the cochief, etc. of the respective expedition is consulted before funds are made available.

## Sampling Party / Post Expedition (Cruise) meeting

(As a general rule, limited to cases where a formal request is received from the organization that carried out the drilling)

Travel expenses (transportation, accommodation, per diem) between the member organization and the site will be covered according to the rules.

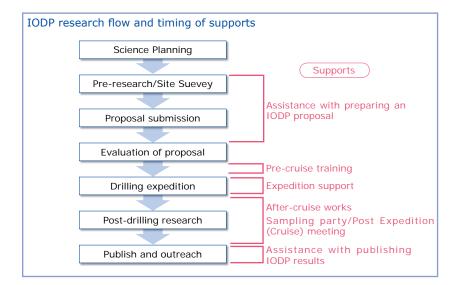
# Assistance with publishing IODP results

This refers to a program that assists with publishing research results derived from data and samples obtained on an IODP expedition in international scientific magazines. To be eligible for this assistance, both the applicant and the scientific paper must meet the following conditions:

Applicants: The applicant has at some time been affiliated with a member organization participating in IODP activities (onboard research, physical/chemical analysis, writing of scientific papers). (If this affiliation dates back to the past, the assistance may be extended to the former member organization, but the amount may be reduced in this case.)

Scientific papers: The paper has been written\* on the basis of data or samples obtained on a drilling expedition later than Exp. 301 and has been, or is scheduled to be published in scientific magazines registered on Web of Science and [or] in the Scientific Drilling Journal put out by the IODP/ICDP.

\* The fact that the paper was written on the basis of data or samples obtained on an IODP expedition must be explicitly specified in the title, keywords, or acknowledgment, etc.



# Book review

## The 0.1-millimeter time machine

Nagoya University Yasufumi Iryu

I think, nothing is more important than an encounter with a good book. The late 1960s, when I was a primary school student, were the days when the Japanese economy expanded year after year. Each household owned a TV, washing machine and refrigerator, and people were moving on to the next stage, buying encyclopedia and complete works of literature. My father bought for me an encyclopedia published by S company under the title, An illustrated learner's guide to primary colors, from a friend who worked as a book salesman. Living on top of the volcanic ash of Kagoshima, this encyclopedia conducted me away to different times and places. If I had not encountered this encyclopedia, I probably would not have become a scientist and instead embarked on a different road.

A recently published earth science book targeting primary school (higher grades) to junior high school students falls into this category of books. I am talking about Itsuki Suto's (Graduate School of Environmental Studies, Nagoya University) book The 0.1-millimeter time machine, which earned him the 56th Sankei Juvenile Literature Prize. The book is divided into seven chapters. In chapters 1 to 3, the author explains what diatoms and dormant diatoms (dormant spores) are and describes the twists and turns that led up to the classification of dormant diatoms. Chapter 4 describes the important role diatoms play by letting us derive information about the times and environment in which they once lived, followed in chapter 5 to 7 by an account of the author's experiences during the Arctic Coring Expedition (ACEX) and the results obtained. When researchers try to explain their field of specialty to the general public, they either talk above people's head or make things too simple at the expense of academic rigor. This book, however, maintains a miraculous balance between these two extremes: while kept simple, its scientific contents are not lost. And for the visual enjoyment of the reader, the author has placed a drawing of a dormant spore in the top left corner of odd number pages. Make sure to recommend this book to any primary school students around you. I am convinced the day will come when a researcher will board the Chikyu No. 2, saying that he/she was motivated by this book to take up earth science. The author, a researcher himself, also gives advice on how to learn the ropes of ontogenesis and onboard research, which should make it of interest even to graduate and postgraduate students.



The 0.1-millimeter time machine - Fossils show us the past and future of our earth

> Author: Itsuki Suto Publisher: Kumon Publishina Publication date: November 2008 ISBN: 4-7743-1436-6

# IODP SAS Panel Members (April 2008-August 2009)

## Retiring IODP SAS Panel Members

## SASEC

(∼Jun. 2008): Gaku Kimura (Univ. of Tokyo) (~Jun. 2009): (Chair) Masaru Kono

> (Tokyo Institute of Technology) : Hodaka Kawahata

(Univ. of Tokyo)

SPC

(~Aug. 2008): Katsumi Marumo (AIST) (~Mar. 2009): Takeshi Matsumoto

(Univ. of Ryukyus)

: Akihiko Maruyama (AIST)

: Hiroaki Sato (Kobe University)

(~Aug. 2009): (Chair) MORI, James Jiro

(Kyoto University)

(∼May 2008): Toshiya Fujiwara

(JAMSTEC)

(~Nov. 2008): Mio Takeuchi (AIST)

: Ryo Anma (Univ. of Tsukuba)

: Yoshihiko Tamura (JAMSTEC) (~May 2009): Hiroshi Nishi (Hokkaido Univ)

: Atsushi Suzuki (AIST)

: Jun-ichi Kimura (JAMSTEC)

(∼Jul. 2008): Sei-ichi Miura (JAMSTEC)

(~Feb. 2009): Masaaki Shirai (Univ. of Tokyo)

: Toshiya Kanamatsu (JAMSTEC)

(~Jul. 2009): Hiroki Matsuda (Kumamoto University)

(~Mar. 2009): Takuro Nunoura (JAMSTEC) (~Aug. 2009): Minoru Ikehara (Kochi University)

(~Jun. 2008): Masami Hato (ERSDAC)

: Toshifumi Matsuoka (Kyoto University)

(~Jun. 2009): Sumito Morita (AIST)

(~Jan. 2009): Masafumi Fukuhara

(Schlumberger Moscow Research)

(~Jul 2009): (Chair) Makoto Miyairi (JAPEX)

#### Alternate members

#### SPC

Shuichi Kodaira (JAMSTEC) Hiroshi Nishi (Hokkaido Univ.) Makoto Okada (Ibaraki Univ.) Toshiya Fujiwara (JAMSTEC) Hiroyuki Yamamoto (JAMSTEC)

Eiichi Takazawa

(Niigata University)

Teruaki Ishii (Fukada Geol. Institute)

Toshitsuku Yamazaki (AIST) Hiroaki Sato (Kobe University)

#### SSP

Akiko Tanaka (AIST) Seiichi Miura (JAMSTEC)

#### STP

Toshiro Yamanaka (Okayama University)

Xue Ziqiu (Kyoto University) Toshiyuki Yokota (AIST) Nobuo Morita (Waseda University)

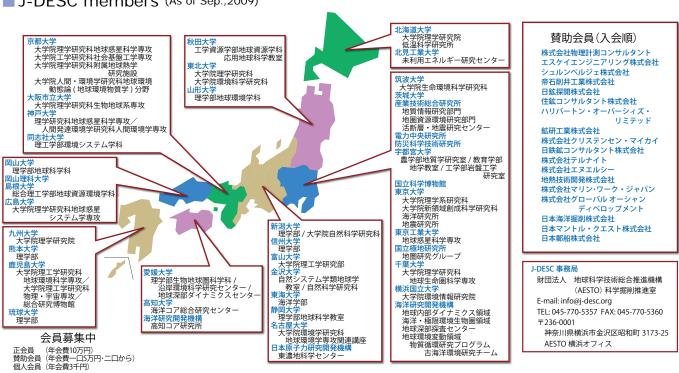
## J-DESC Annual Schedule (April 2009 - March 2010)

Month	J-DESC	IODP	ICDP	Others
4	J-DESC symposium (4 Apr., JAMSTEC Tokyo Office) 2009 J-DESC Annual plenary meeting (4 Apr., JAMSTEC Tokyo Office)	•IODP proposal submission deadline(1 Apr.) •IODP ED proposal submission deadline (15 Apr.)		EGU(19-24 Apr., Vienna) IODP-ICDP Euro FORUM 2009 [EGU](24 Apr., Vienna) IODP-ICDP Townhall Meeting [EGU](23 Apr., Vienna) Asian IODP Consortium Meeting(22-24 Apr., Busan, Korea)
5	<ul><li>2nd J-DESC Town Hall Meeting (19 May, JpGU Makuhari, Chiba)</li></ul>	#12 SSEP(25-28 May, Nethrlands)	<ul><li>ICDP Training course (11-15 May, Sweden)</li><li>EC (17-19 May Odawara, Japan)</li></ul>	JpGU(16-21 Makuhari, Japan)     Session on Earth Drilling Science     (18-19 May)
6		<pre>#10 EPSP(11-12 Jun., Denver, USA) #8 SASEC (15-16 Jun., Washington, USA) #10DP domestic science planning committee(29 Jun.)</pre>	•CONTINENTAL SCIENTIFIC DRILLING WS (4-5 Jun., Denver, USA)	School of Rock (23, Jun5, Jul.)
7	<ul> <li>IODP campaign (22nd, 31 Jul2 Aug., Shinshu University)</li> </ul>	#9 EDP (15-17 Jul., Sweden) #11 SSP (27-29 Jul., Austin)	•ICDP domestic committee (1 Jul.)	
8	Core school: Micropaleontology Course (19-21 Aug., Tohoku University)	<ul><li>#9 STP (17-19 Aug., Korea)</li><li>OTF (24 Aug., Kiel, Germany)</li><li>#14 SPC (25-27 Aug., Kiel, Gemany)</li></ul>	AOG (27-29 Aug., Boulder)	•AOGS (11-15 Aug., Singapor)
9		•INVEST (23-25 Sep., Bremen) •JR ship tour (5-6 Sep., Yokohama)		<ul> <li>Annual meeting of Geological Society of Japan (4-6 Sep., Okayama University of Science)</li> </ul>
10	•IODP campaign (23rd Tohoku University)	Oct.)      KJOD workshop (29-31 Oct., Korea)		
11		•#13 SSEP (16-18 Nov., Melborne)		
12	•IODP campaign (24th Ehime University)		•ICDP domestic committee	*AGU (14-18 San Fransisco, USA) *IODP Townhall Meeting [AGU](15 Dec.) *ICDP Townhall Meeting [AGU]
1		<ul><li>#10 EDP (13-15 Jan., Sendai, Japan)</li><li>#9 SASEC (18-19 Jan., Korea)</li></ul>	•ICDP proposal submission deadline (15 Jan.)	
2		•#12 SSP (New Zealand)		

<sup>■</sup> IODP SASEC: SAS Executive Committee, SPC: Science Planning Committee, SSEP: Science Steering & Evaluation Panel, SSP: Site Survey Panel, EPSP: Environmental Safety & Protection Panel, STP: Science Technology Panel, EDP: Engineering Development Panel, ITS-PPG: Industry-IODP Science Program Planning Group, OTF: Operations Task Force

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

### J-DESC members (As of Sep., 2009)





#### J-DESC Newsletter

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<sup>\*</sup> Please see the J-DESC web page for latest schedules.