

Agenda

IODP Council Meeting

Washington DC, USA

July 12-13, 2006

Wednesday, July 12, 2006 13:00~17:30

(Joint Session with SASEC meeting)

1. Report of SASEC approved FY07 Program Plan (SASEC Chair) **13:00**

2. Report of decision on mission approach by SASEC and other SPPOC/SASEC activities (SASEC Chair) **13:30**

3. Reports on program management and scientific and technical achievements (IODP-MI) **14:00**

(End of Joint Session 15:00)

(Coffee break 15:00~15:30)

4. Agency reports **15:30**
 - (1) Lead Agencies (NSF/MEXT)
 - (2) ECORD-EMA
 - (3) MOST
 - (4) Interim Asian Consortium-KIGAM

5. Implementing Organizations reports **16:30**
 - (1) JOI Alliance
 - (2) CDEX

(3) ESO

Thursday, July 13, 2006 9:00~11:30

(Council meeting)

6. Approval of 2005 Council meeting Minutes (Tanaka) **9:00**

7. IODP-MI BoG's decision on SPPOC reformulation to SASEC (IODP-MI President) **9:10**

8. IODP management report (NSF/MEXT) **9:40**
 - (1) 2006 Contract activity

 - (2) Financial report

 - (3) Audit report

9. Potential new members **10:40**
 - (1) India

10. Future Council meeting **10:55**

11. Other issues **11:10**

Council meeting adjourn 11:30

IODP Council Meeting

July 12-13, 2006

IODP Management International
Washington, DC

IODP Council

Jan Backman*	Academy of Finland, Finland
Reinhard Belocky*	Austrian Science Fund (FWF), Austria
Are Birger Carlson*	Research Council of Norway, Norway
Luis Delgado*	Ministry of Education and Science, Spain
Sören Durr*	German Research Foundation (DFG), Germany
Chris Franklin	Natural Environment Research Council, United Kingdom
Kathy Gillis*	School of Earth and Ocean Sciences, University of Victoria, Canada
Jean-Pierre Henriët*	Ghent University, Belgium
Dan Holtstam*	Swedish Research Council, Sweden
Anders Kjaer*	Danish Natural Science Research Council, Denmark
Kristjan Kristjánsson*	The Icelandic Centre for Research-RANNIS, Iceland
Marcel Kullin	Swiss National Science Foundation, Switzerland
Young-Joo Lee*	Korea Institute of Geoscience and Mineral Resources
John Ludden*	National Institute of Earth Sciences and Astronomy (INSU-CNRS), France
Peadar McArdle*	Geological Survey of Ireland, Ireland
Catherine Mevel	ECORD Managing Agency (EMA), France
Jose Hipolito Monteiro*	Department of Marine Geology, Geological and Mining Institute (IGM), Portugal
Julie Morris	National Science Foundation (NSF) USA
Sergio Persoglia*	National Institute of Oceanography and Experimental Geophysics (OGS), Italy
Jianzhong Shen	Ministry of Science and Technology, China
Raymond Schorno*	Netherlands Organization for Scientific Research (NWO), Netherlands
Yasuhisa Tanaka	Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan

Science Advisory Structure Executive Committee (SASEC)

Keir Becker	University of Miami, RSMAS, Chair-Science Planning Committee (SPC), USA
Michael Bickle	ESSAC, University of Cambridge, United Kingdom
Yoshio Fukao	IODP-MI Board of Governors, University of Tokyo, Japan (substitute for Nagao)
John Hayes	USAC, Woods Hole Oceanographic Institute, Massachusetts, USA
Susan Humphris	USAC, Woods Hole Oceanographic Institute, Massachusetts, USA
Gaku Kimura	J-DESC, University of Tokyo, Tokyo, Japan
Masaru Kono	J-DESC, Tokyo Institute of Technology, Tokyo, Japan
Kenneth Miller	USAC, Rutgers, New Jersey, USA
Toshiyasu Nagao*	IODP-MI Board of Governors, Tokai University, Japan
Eli Silver	IODP-MI Board of Governors, University of California, Santa Cruz, CA, USA
Manik Talwani	IODP Management International, Inc., Washington, DC, USA
Yoshiyuki Tatsumi	J-DESC, Institute for Research on Earth Evolution, IFREE, JAMSTEC, Japan
Gerold Wefer	ESSAC, University of Bremen, MARUM, Germany

Liaisons, Observers, and Guests

Jamie Allan	National Science Foundation (NSF), USA
Richard Arculus*	Department of Earth & Marine Sciences, Australian National University, Australia
Rodey Batiza	National Science Foundation (NSF), USA
Steve Bohlen	JOI Alliance, Joint Oceanographic Institutions (JOI), USA
Dan Evans	ECORD Science Operator, British Geological Survey, United Kingdom

Diane Giuliani	IODP Management International, Inc., Washington, DC, USA
Yoshi Kawamura	Center for Deep Earth Exploration (CDEX), Japan
Hans Christian Larsen	IODP Management International, Inc., Sapporo, Japan
Takao Miyazaki	Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan
Gilles Ollier*	European Union
Toshiyuki Oshima	Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan
Yoichiro Otsuka	IODP Management International, Inc., Washington, DC, USA
Ram K. Sharma	Department of Ocean Development, India
Masato Sugiyama	Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan
Kiyoshi Suyehiro	Japan Marine Science and Technology Center (JAMSTEC), Japan
John Walter*	National Science Foundation (NSF), USA
Marco Weydert*	European Union

*Unable to attend

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IODP Council Meeting

July 12-13, 2006

IODP Management International

Washington, DC

Draft Minutes

Wednesday

July 12, 2006

13:00~17:30

Joint Session with SASEC meeting

Yasuhisa Tanaka, IODP Council welcomed everyone to the IODP Council Meeting Joint Session with the Science Advisory Structure Executive Committee (SASEC). Susan Humphris, Chair, SASEC noted a minor change to the agenda. The discussion about future meetings will be addressed after the first three agenda items. Council members introduced were: Marcel Kullin, Switzerland representative from Swiss National Science Foundation; Chris Franklin, United Kingdom representative from Natural Environment Research Council; Jianzhong Shen, Ministry of Science and Technology, China; visiting scientist, Ram Sharma, Ministry of Ocean Development Government of India.

Report of SASEC approved FY07 Program Plan

Susan Humphris, Chair of SASEC advised that SASEC unanimously approved the FY07 APP and introduced Keir Becker, Chair Science Planning Committee who gave a brief overview of the science in the FY07APP describing the process of the APP including background and timeline.

Becker described FY 07 as a unique year, and gave an account of some of the highlights. There is a modest drilling time for the *Chikyu*, and firm SODV operations were supposed to occur late in the fiscal year. There are three programs in the FY07APP; New Jersey Shallow Shelf Program, Equatorial Pacific, NanTroSEIZE. OTF created a plan that goes further into the future FY08 and FY09. There was a discussion of proposal stages and processes.

Susan Humphris advised that the SASEC committee discussed the APP, including the delay of SODV and consequent science implications and financial ramifications. A revised program plan will be prepared within the next few weeks for submittal to the Lead Agencies.

Report of decision on mission approach by SASEC and other SPPOC/SASEC activities

Susan Humphris noted that SASEC is a new committee and that this was their first meeting. There were a number of issues the committee discussed regarding SASEC activities and procedures, including setting up its subcommittees. SASEC has terms of reference in place and a mandate. SASEC's mandate is to conduct IODP long-range planning; as well as evaluate and assess the science done in the program; approve the APP, and foster integration with other geoscience programs. SASEC is working to set up mechanisms to address these issues. SASEC is supportive of the SPC process of meeting with the co-chairs and discussing the science and what was accomplished and not accomplished as well as next steps and lessons learned. Additionally, SASEC has been looking at the Science Advisory Structure and whether it is best configured to deal with the multi-platform program. Additionally, a small subcommittee has been formed to look at the mission concept.

Another issue related to longer term evaluation would be to institute a process which would look at the impact of the IODP drilling expeditions on the proposed science. It was decided there would be reviews based on a thematic basis, rather than an individual basis. At this time there is a one-year hiatus on drilling, therefore the science of previous programs could be evaluated. It was recommended that a small committee be formed to include some members of SAS, an IODP-MI representative and some external people who could help with the evaluations. One such review might occur each year for the next three years. It would evaluate the first two-years of IODP drilling. There might be possible symposiums to highlight these evaluations.

Humphris said that it may be time to update the *Initial Science Plan (ISP)* as we are several years into it. SASEC reviewed the document and found some areas which could be re-defined, and found other topics that drilling could help with. The workshop white papers resulting from 2006 and 2007 workshops will be very helpful as will community input through national committees and town meetings. The *ISP* would not be rewritten, but there would be a mid-course update. Humphris noted that SASEC would like to have the updated science plan published by the end of 2008.

A Mission Implementation concept document was accepted by the IODP-MI Board of Governors' meeting April, 2006. It was requested that a mission implementation group be formed who would work out the details of how the mission concept would be integrated with the IODP science proposals. Tatsumi-san was designated as the SASEC representative to serve on this group. The group would have six weeks to devise the implementation plan before SPC approves it at its August meeting. SASEC hopes to approve this in the fall, and that it will be part of the annual call for proposals in April.

Four workshop proposals were considered for the coming year. Two proposals were rejected and two proposals are being considered: geo-hazards and LIPs. A decision was made to move forward with the geo-hazards workshop because it could make a great impact and contribution. It has been recommended that the steering committee be broadened to include representatives from industry. The LIP proposal was not focused and clearly defined enough so it is being returned for revision.

There was a discussion about communications and outreach, and outreach to the other global scientific communities (FY07APP). An IODP distinguished lecture series has been suggested and would be a good mechanism to bring to IODP countries who are thinking about joining. Ken Miller and Tatsumi-san would serve on the committee. Topical symposiums would highlight IODP science. One topical symposium regarding North Atlantic and Arctic climate variability is being considered for next year and funding for it is available.

Active planning with ICDP to define common interests has been proposed. Although we do not usually plan with ICDP, this would be an opportunity to bring together a small group from ICDP and IODP for joint cooperation. Keir Becker would be a point person on this initiative.

Another activity discussed was observatory initiatives which would require liaising with ORION-US, ESONet-Europe and DONET- Japan.

Reports on program management and scientific and technical achievements (IODP-MI)

Tanaka-san said that the first council meeting did not deal with the scientific and technical achievement issues, and this is the first time to include it.

Tanaka-san introduced Manik Talwani, President and CEO, IODP-MI who together with Hans Christian Larsen, Vice President of Science Planning, IODP-MI and Yoichiro Otsuka, Senior Advisor to the President, IODP-MI, presented a report on the program management and technological achievements. This report is included as an appendix.

Tanaka-san thanked Talwani, Larsen and Otsuka-san for their comprehensive reports. Tanaka-san was very pleased to see that things were going so well.

Tanaka-san made a few comments about the management presentation. He expected to hear about the IODP review and core redistribution review, and FY 06 APP program plan revisions. Talwani advised that we have received guidance from the lead agencies regarding the review and a committee designated by the IODP-MI Board of Governors will do the review.

With regard to the core redistribution review, Talwani advised that what is described in the APP will be carried out.

Dr. Sharma raised a point that if India becomes a member his government would expect that some drilling would be done in the Arabian Sea. Talwani said you do not have to be a member of IODP to propose drill sites. India would join the same system that everybody else does. Proposals for drilling go through the review process. Indian scientists would serve on panels if India joins IODP, and would have a chance of learning how to put together proposals. With this knowledge India's chances of an approved proposal would increase.

Jamie Allan, National Science Foundation mentioned that it is a win-win situation with the program with a proposal driven program. If India joined IODP, there might be several proposals that could come up because the science is so compelling for example: drilling gas hydrates.

Talwani sent a letter to the Embassy of India in Washington, DC and outlined the scientific advantages if they are able to join. He pointed out that IODP is the largest global marine geoscience program. Tanaka-san advised we will meet with Dr. Sharma after the council meeting.

A question was asked about the IODP-MI publication *Scientific Drilling*, and whether it is a subscription? Larsen answered that we have copies available at scientific meetings and distribute copies to the program offices.

With regard to future meetings, Susan Humphris advised that SASEC is mandated to meet with the IODP-MI Board of Governors' once a year, once with SPC and once at its discretion. SASEC requested the Board of Governors that the need to meet jointly with SPC be eliminated. SASEC will meet November 1 and 2, 2006 in Japan, will have a meeting by videoconference in February 2007 and will meet with the Board of Governors in Bremerhaven on June 25 and 26, 2007.

The IODP Council will meet in Bremerhaven on June 26 and 27 and the IODP-MI Members Meeting/IODP Day will be held on June 28 and the IODP-MI BoG meeting on June 29.

Dr. Shen, China would like to host the next Council meeting (the summer of 2008) in Hangzhou.

The Joint Council/SASEC Meeting adjourned at 3:35.

IODP Council Meeting began with introductions by Tanaka-san (4:00 p.m.)

Agency reports-

(1) Lead Agencies (NSF/MEXT)

Toshiyuki Oshima, MEXT liaison to NSF gave a report on new membership to IODP. The Republic of Korea, (interim Asian Consortium) signed a Memorandum June 2006 with NSF/MEXT.

Unfortunately, the Australian representative was unable to attend this IODP council meeting. Manik Talwani has been invited to speak at a workshop in Australia about IODP (August 2006).

President Bush visited India and together with Indian Prime Minister issued a joint statement welcoming India to IODP.

(2) ECORD-EMA

Catherine Mevel, EMA gave a report on ECORD activities. ECORD currently has 17 members. Marcel Kullin is the chair and vice-chairs are Chris Franklin (UK) and Sören Durr. Dave Falvey is retiring from BGS and John Ludden is the new director of BGS.

ECORD is trying to attract new members and is looking at East European countries, Baltic countries and Poland. Lithuania recently attended the ECORD Council meeting June, 2006. ESSAC moves to a new location every two years and is now at Cardiff. Julian Pearce is the acting chair, Chris MacLeod is chair, and is recovering and resuming his activities. European Science Foundation has two programs: Euro MSRC-challenges of Marine Coring Research and the Magellan Workshop Series program; EuroForum Cardiff workshop; Biosphere workshops.

At the recent EGU meeting in Vienna, April 2006, 100 people attended the town hall meeting. There was no MSP expedition in FY06. A decision was made to delay it based on technical problems they had to resolve with the contractor (permit, visas).

ESO is preparing to implement the New Jersey Shallow Shelf expedition.

There will be an ECORD evaluation (before any increase in its contribution to ECORD Council) in Bergen and it will take place in August (SPC meeting). Future funding is a big issue with costs increasing from \$3.5 million to \$5.6 million for a single participation unit. There have been discussions with the European Commission to explore possible funding avenues.

The Deep Sea Floor Frontier initiative was held in Naples and 75 representatives attended (closed meeting). Six major themes were addressed—fluid seeping and bacteria—deep sea landscape.

Aurora Borealis is a German led project in Arctic ocean research; geology/geophysics for an ice breaker ship (Endorsed by the European Strategy Forum for Research Infrastructure) (ESFRI).

(3) MOST

Dr. Shen from China said that there have been few changes within the past two years. The Government has put great emphasis on science and has promised to increase funding and is trying to improve the infrastructure. In the next five years they will be funding a newly integrated investigation vessel for geology and deep sea investigation. China has a separate channel from the ministry to apply for funds to the government. As far as IODP activities, there have been several workshops on marine geology

organized by universities. It is very important that scientists are invited to give lectures to the Chinese community and this would be very beneficial. Chinese scientists have a lot of projects however, if they have no proposals they will face some serious issues. The Government wants to see the results, but a lot of scientists do not have a lot of experience. It would be helpful if IODP were to get a list of Chinese scientist names and invite them to future workshops.

There was a discussion about how China is targeting the level of participation in IODP. The MOU will be in place for five years. If China contributes more, the Government needs to know what the benefit of this contribution will be because they want results.

It was pointed out that it is not common knowledge to Chinese scientists that they can look at research samples at no cost to them. There is a wealth of over 200 drilling expeditions-worth of core which any Chinese scientist can receive, at no extra cost to them. In fact, they can visit the Kochi Core Repository in Japan and look at the samples—these are results. An example was given about a Chinese drilling proposal submitted in an area which was very difficult to get permissions, and that the effective cost of one drilling proposal is in the amount of \$10 million. If China were to do this alone the costs would be as much as \$20 million. SAS meetings in China would be helpful.

(4) Interim Asian Consortium-KIGAM

Dr. Young-Joo Lee (Korea) was planning to attend the council meeting, but was unable to because of a problem with his visa. He thanked everyone for their efforts in getting the visa. Otsuka introduced Korean IODP activities with the slides prepared by Dr. Lee. Possible members to this consortium will be Australia, India, and Chinese Taipei (2006-2008).

The MOU for the Interim Asian Consortium was signed by NSF, MEXT and KIGAM (MOU text in IODP Web site). The MOU defines the participation of the consortium from FY2006 to FY2008. For the time being, KIGAM is the only member in the consortium; it works to increase the consortium members.

KIGAM expects Australia, India and Chinese Taipei as potential consortium members in the future. The participation of Korean scientists in two IODP expeditions, preparations of three scientific proposals for IODP drilling, two workshops held jointly with JAMSTEC, and other K-IODP activities were introduced.

Implementing Organizations reports

(1) JOI Alliance

Steve Bohlen, President Joint Oceanographic Institutions, Inc. (JOI) reported that the *Joides Resolution* is currently in Indian waters drilling gas hydrates. In August, 2006 it will be delivered to a shipyard in Singapore. The receipt of the vessel conversion is anticipated, at this time, by the end of September 2007. The plan is to lengthen the ship by adding a new front extending some 30 to 40 feet in length. There will be a number of improvements made regarding drilling capability, habitability, and lab space (50% more space) by approximately the end of November 2007, and a better idea of exact timing will be known in two months. The ship will be more stable and helpful with bad weather activities.

JOI has been working with proponent groups and preparing for phase two of Juan de Fuca drilling, and two expeditions for NanTroSEIZE. A question was addressed about future berths and whether there will be some berths for occupation by press and teachers (ten to 20).

(2) CDEX

Yoshi Kawamura, Director of Science Planning Department, CDEX gave a report. It was noted that as of July 1st the CDEX organizational structure had changed. CDEX is preparing for Nankai and developing a

long-term monitoring system for which a high-end design document by the end of August is planned. *Chikyu* maintenance has been completed and tested (System integration test-emergency evacuation for the riser system, coring system, drilling fluid). Phase 2 will be performed in Shimokita--East area in August. Emergency disconnect/reconnect function from the BOP will be tested.

(3) ESO

Dan Evans, ESO Science Manager provided an update on ESO matters. There has been a lot of interest following the ACEX expedition, and a lot of media coverage has occurred as a result (magazine articles, cartoons).

Expedition highlights were noted including the Tahiti Sea Level-Piggyback drilling which drilled a lot of core. The coral reef was full of holes and the samples obtained were very small. There was little space on deck, and there was restricted scientist participation offshore.

The intention has been to have a MSP every year, but the reality is that they are only able to fund three out of the four expeditions. There are plans to carry on until the money runs out and maximize the use of the vessel to get the science.

The Tahiti expedition finished early, and the co-chiefs were happy with the core obtained. The Onshore party will be carrying out the results from the expedition at the new core repository at Bremen. A Review Task Force for the Tahiti expedition is planned for August.

New Jersey will have two co-chiefs; Greg Mountain, USA and Steven Hesselbo, UK

Meeting adjourned at 5:55 p.m.

Thursday, July 13, 2006 9:00~11:30

Approval of 2005 Council meeting Minutes (Tanaka)

Tanaka-san asked if the draft minutes were accurate, and whether there were any changes to the minutes. The minutes were unanimously approved. The approved minutes will need to be posted on the website.

Tanaka-san introduced Julie Morris, Division Director National Science Foundation (NSF). Morris gave a brief introduction about her position at NSF as the Division Director of Ocean Sciences, and that she has been involved with the ocean drilling program since 1996. Morris has sailed on three expeditions; served as a co-chief on ODP 205, experienced first-hand the superb quality of the ships' crew at every level and stage. One example given was when the crew put the drill back in and out of the drilling location at least two dozen times (taking a half hour to do this) each time. The quality and reach of science done thru the drilling program has a lot of impact. A lot of people outside of the ODP community do not know much about what occurs in the program, and may view it as a series of regional studies. One of the challenges of the new program is to increase the awareness of people from outside the community so that they know what the program is doing on a national and international level. This is an important goal of the new program. New expeditions present opportunities for connecting with other communities and reaching out to other scientific communities. It will be a challenge to build between the divide of oceanography and climatology and paleoceanography and climatology. There is a lot of work to be done to narrow the divide between these areas. By using new technology and old technology, we can say the science is transformative.

There was a discussion about revising the *Initial Science Plan*, and refitting of the ocean drilling vessel from money appropriated by Congress.

IODP-MI Board of Governors' decision on SPPOC reformulation to SASEC

Manik Talwani gave a brief report about how SPPOC was reformed and became SASEC. In response to a decision by the IODP-MI Board of Governors it was preferred that a smaller contingent be sent to SPPOC compared with the membership governed by an MOU. The IODP-MI Board of Governors (BoG) unanimously passed a motion at its March 2006 meeting in Salt Lake City with 3-3-2 (USA-Japan-Europe member participants) plus one board member from the United States, one board member from Japan, President of IODP-MI (non-voting) and Chair of SPC (non-voting).

SASEC's dual role was noted among the IODP-MI Board of Governors and the Science Advisory Structure, lead agencies, and that it has the depth to do the work which is important for the leadership, and is small enough that it is effective in doing its work.

Europe noted this is an improvement.

IODP management report (NSF/MEXT)

(1) 2006 Contract activity and (2) Financial report

Dr. Jamie Allan, National Science Foundation gave a report. The request for proposal contract to manage data within the program using, "SEDIS" is going to be issued this month, and in fact we are hoping it will be issued by this meeting, Talwani said it is being issued today. An update was given about program costs; Platform Operation Costs (POCs); Science Operation Costs (SOC)(commingled funds support these costs).

There was a discussion about the IODP-MI contractual relationship with NSF and NSF/MEXT. There is to be a triannual review of IODP-MI performance, and the first such review will occur later this fiscal year. A guideline document was sent to Talwani from NSF/MEXT, and a report is expected by March 1, 2007. The IODP-MI Board of Governors will oversee this process and establish the procedure. A group of people (7-10 members) external to SAS and BoG will review and focus corporate performance and examination of accomplishments for the first three years, and examination of the SAS structure.

There was a discussion about India's IODP participation costs. If an Associate Membership pays 1/6 participation it receives a 1/6 participation unit, and a 1/6 participation will yield 1/3 of a person attending the expedition for a few months at a time. In comparison, one participation unit gives 2 berths on all platforms; membership to all the panels; SPC membership and voting on the science proposals, two people can sail on each expedition (example 2 people on *Chikyu*).

More discussion about Indian participation in IODP followed, and how to help make a good case for participation. The Indian Prime Minister and the President of the United States together mentioned the importance of the IODP for India. Sharma said that as it is they have to plead for the allocation of funding for the next year at a low level. Once they become a full member, then there will be more participation, and India is very serious about participating.

There was a FY 07 APP discussion with concerns by ECORD about costs while all three ships are not sailing. NSF advised that in the past 3-4 years it had an operating budget in the black, and is discussing scenarios for different NSF funding contributions. Rodey Batiza will advise about possible costs in the future. Morris speaks to Leinen about how they will ramp up the program under these scenarios. If they get the budget increases they are planning thru an initiative, they would be looking at good growth to plan

on doubling the funding. They could probably grow more in the next 3-4 years if they have the budget to allow them to do it.

Rodey Batiza advised that perhaps at next year's council meeting we could discuss the scenarios for our platforms, and figure out the total picture with expenses and numbers and understand the real implications—all will experience challenges to these current operations. Jamie Allan advised that 2005 was a tight budgeted year and 2006 was as well.

There was a discussion about the costs for *Chikyu* operations.

(3) Audit report

Rodey Batiza, National Science Foundation gave a report about the audit report and that there were no variances found by the KP&G auditors. Background was given about the audit report. A memorandum indicates that an independent audit is to be provided to the IODP members yearly to the council by an outside accounting firm. This will be the last year a report is received that is not easily understood. In the future, the audit and report will be done by the financial part of NSF, which is separate, and not by an outside accounting firm. This report will be done in one week, and at no cost.

There was a discussion about NSF's internal audit system, and that there was an Inspector General (IG) of each division who oversaw activities within each government agency. NSF's IG told them that the audit could be contracted out under its guidance and guidelines and would comply with the terms of the MOU, and that the findings would be understood by everyone.

Talwani mentioned that IODP-MI is being audited, and that it takes a considerable amount of work to prepare for, and it occurs on a continuing basis for 2-years because we are in a special category which requires this.

Batiza mentioned that when ODP transitioned to IODP the IG's office noticed and asked questions. Batiza was asked if he would speak with an IG panel and answer questions about IODP. The IG recommended against a full audit, and Batiza has not been asked to appear before the panel yet.

IODP-MI was not on the IG list that the directorate produced. One of the concerns was that there was not enough money being spent on the program contract, that it had permission to spend.

Potential new members--(1) India

Dr. Sharma made a brief statement about India's participation in IODP, and thanked everyone for inviting India to attend the council meeting.

Dr. Sharma gave a report detailing the Government of India's oceanographic/scientific programs, including ships, drill locations and industry supported programs.

It was pointed out that there were two proposals (Bay of Bengal and Arabian Sea) which had already been approved by the IODP program and scheduled to begin in the near future. Copies of the proposal abstracts will be provided to Sharma. NSF mentioned that sometimes there is flexibility with staffing of the ships and that sometimes there is trading between other countries based on a particular interest.

Julie Morris noted that what Sharma mentioned as high priorities for Indian science, are high priorities for international scientists, and that is why the IODP program works.

There was discussion about Australian participation. The latest message from MARGO is that they passed their first stage and got some positive feedback for the application of IODP participation. There have been delays in the approval process and the earliest this budget will be seen is July 2006. The council wanted to hear from Dr. Arculus, but he could not attend the meeting.

Australia invited Dr. Talwani to attend their ocean drilling workshop program (2 day workshop) they are planning on August 26 and 27, before Goldsmith's conference.

Talwani also mentioned that he could go to India to give an exact description of the proposals process.

Future Council meeting

It was discussed with SASEC at the joint meeting that the next council meeting would be held in Bremerhaven Germany tentatively on June 27.

There was a discussion about looking at the APP and that it would be helpful to have more time between the submission of a draft APP and the SASEC and Council meetings.

Other issues

For 2008, Dr. Shen announced that he would like to host the 2008 meeting in China during the summer. He suggested that the venue could be at a resort in Hangzhou, China. It was said that dates in June or July would be better because of the IODP-MI contractual agreement with NSF.

Talwani spoke about a discussion held during the recent NSF/MEXT meeting about introducing a program/new initiative being developed to ask other countries to become involved in IODP. IODP-MI would plan a workshop and invite a number of other countries (not members of IODP) and put together a plan providing participation in IODP with specifics about set up and structure.

There were further discussions about the implications, in terms of ship time, and that the IOs could invite people with expertise, but not at the cost of paying members. It was recommended by Otsuka that this could be done on a "case by case basis". IODP-MI could coordinate this with the IOs and work on a draft process. Talwani said it was a simple matter because there is no money being exchanged (where there are berths that are not being filled otherwise). However, ECORD said that this has another implication for ECORD members. Allan said this is a way of giving smaller and other non-participating countries an opportunity to participate. Mevel and Franklin stated that there are small countries within the European community who have not participated-and that this raises some issues.

The next council meeting will be chaired by Julie Morris, National Science Foundation. Julie advised that when the permanent NSF IODP principal official is hired (section head) that section head would chair the meeting in place of Julie Morris.

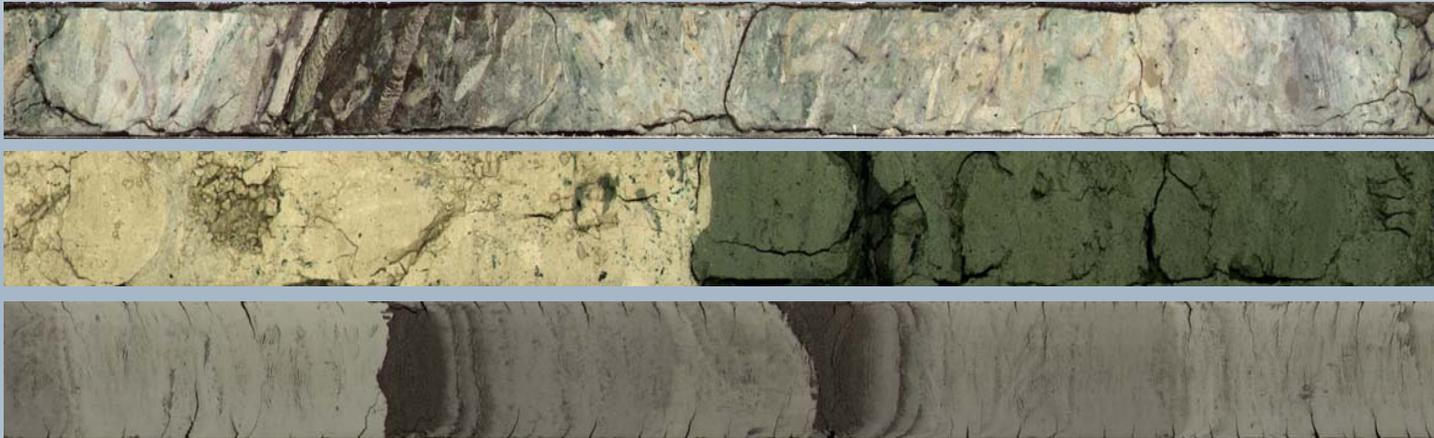
Tanaka closed the council meeting thanking everyone for their participation.

Council meeting adjourned at 11:30 a.m.

**APPENDIX A:
PowerPoint Presentation
Manik Talwani**

DRAFT

Integrated Ocean Drilling Program



IODP Council Meeting
July 12-13, 2006
Washington, DC



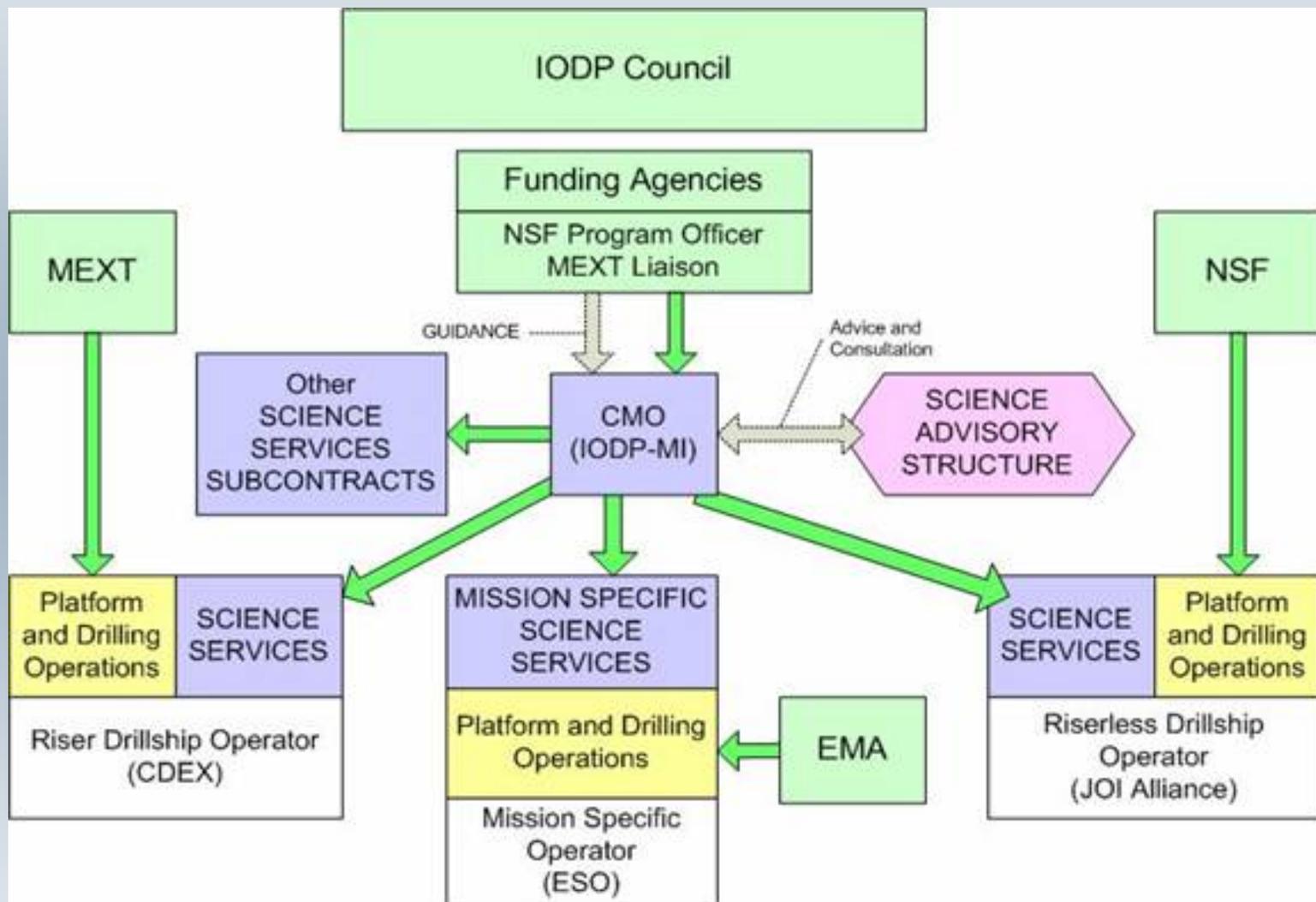
IODP-MI

Presenting:

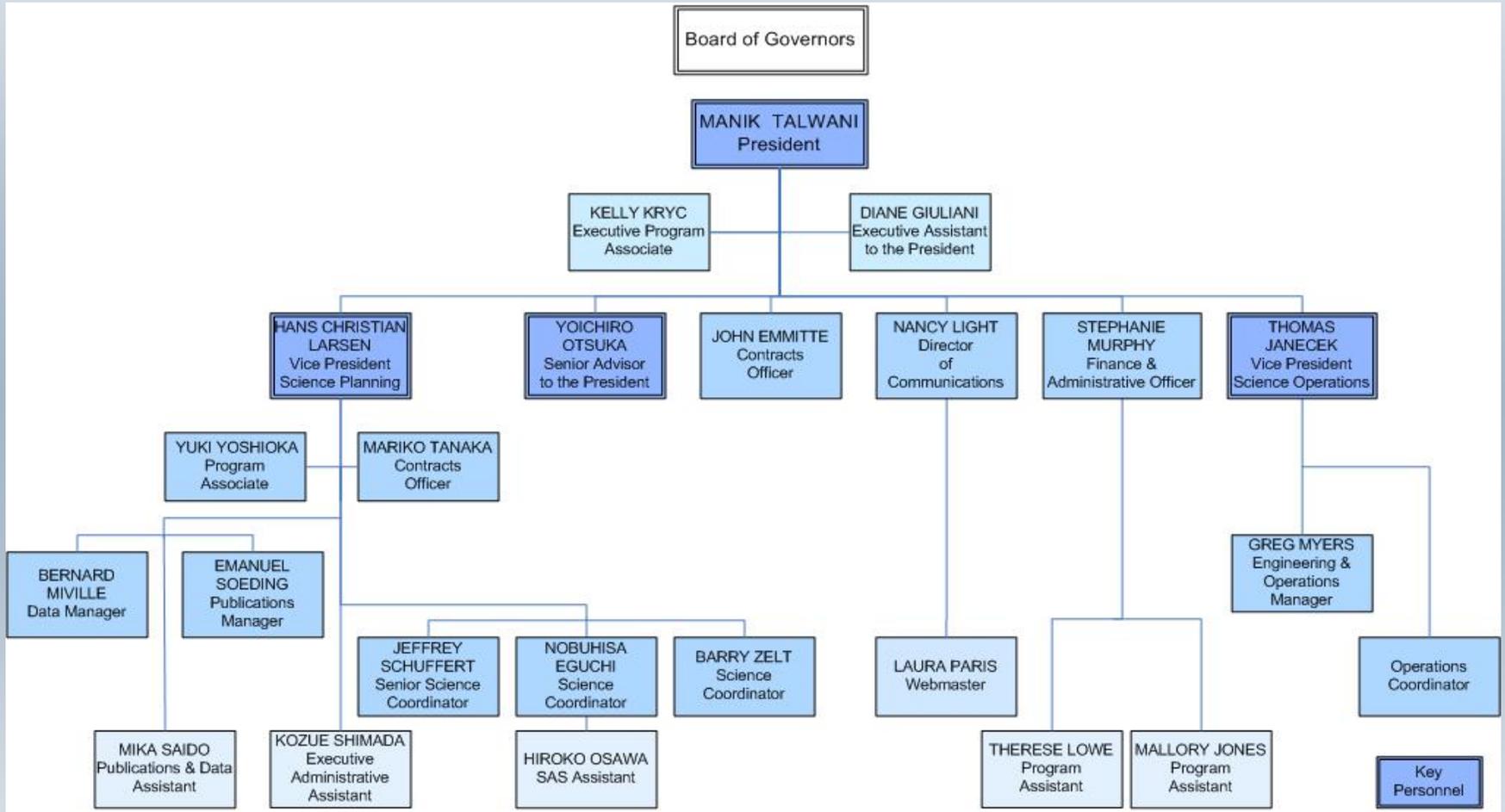
- **Overview of IODP-MI**
- **IODP Platforms**
- **IODP Operations**
- **2006 Workshops**
- **Education and Outreach**
- **IODP-MI Contracts**
- **IODP Science Planning**



IODP Structure



IODP-MI



IODP Platforms



IODP-MI

Multiple Drilling Platforms

In late 2007, simultaneous operation of all three platforms will start.



Riser Drillship



Riserless Drillship



Mission-Specific



Chikyu: Riser Drillship

- Operated by Japan's JAMSTEC Center for Deep Earth Exploration (CDEX).
- Scheduled to begin IODP operations in late summer 2007.
- 12,000m-drillstring with 2500m-riser capability (4000m in future).

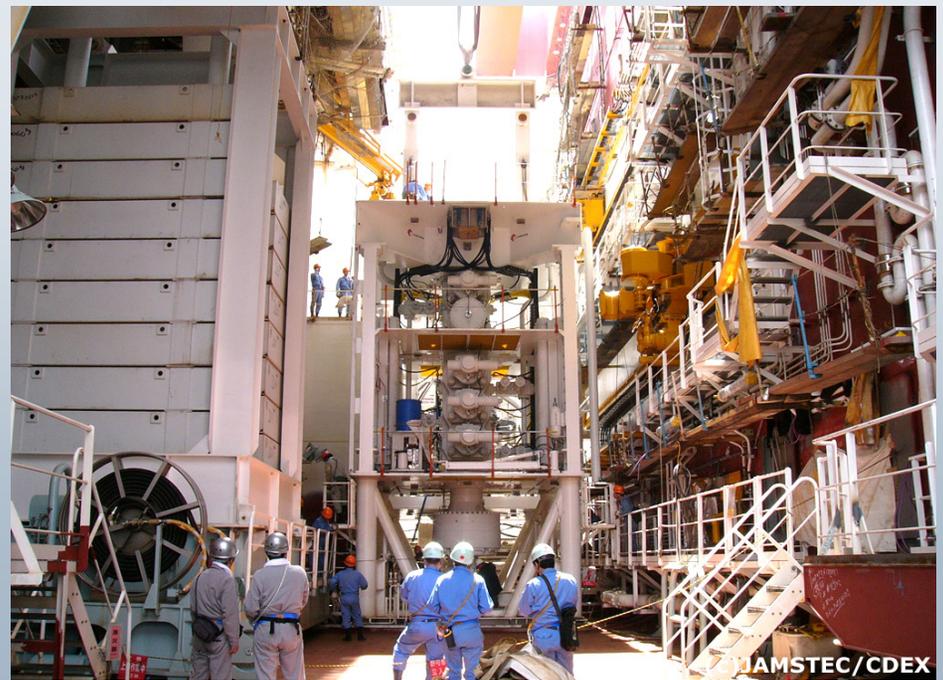


IODP-MI

www.jamstec.go.jp

Chikyu

- 380-ton BOP
- 27m-riser sections



IODP-MI

(c)JAMSTEC/CDEX

Chikyu

70m derrick

Six 3.8m-dia.
azimuthal
thrusters



IODP-MI

Scientific Ocean Drilling Vessel (SODV) U.S. Riserless Drillship



*JOIDES Resolution at
Mid-Atlantic Ridge, ODP Leg 109
June 1986*

Operated by the U.S. Implementing Organization:

- Joint Oceanographic Institutions (JOI)
- Texas A&M University (TAMU)
- Lamont-Doherty Earth Observatory (LDEO)

IODP Phase 1: *JOIDES Resolution* (2004-05), as used in ODP

IODP Phase 2: *JR* conversion, with operations planned to start Aug. 2007

SODV Conversion

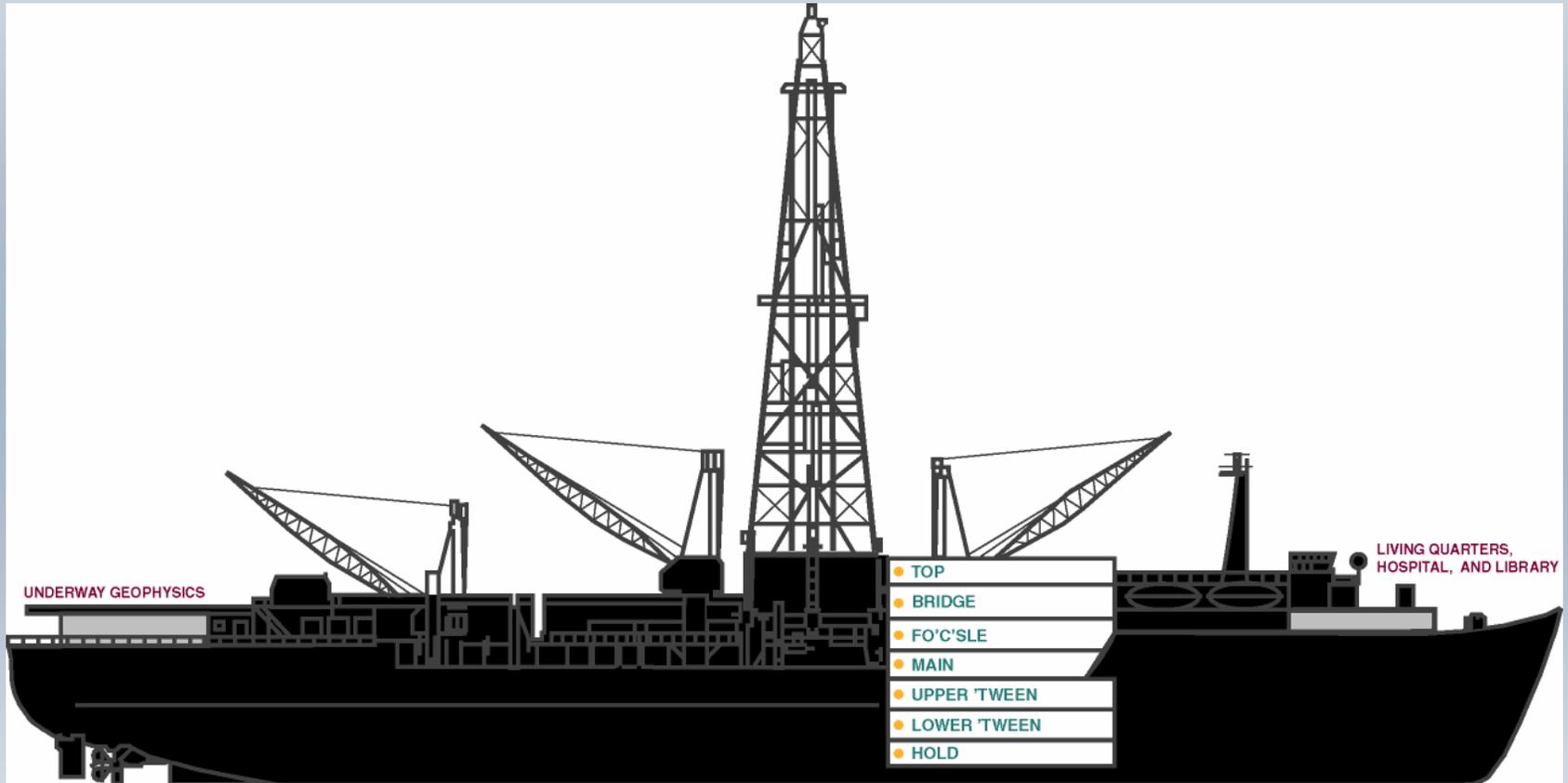
Funded by NSF under MREFC account

Design Goals:

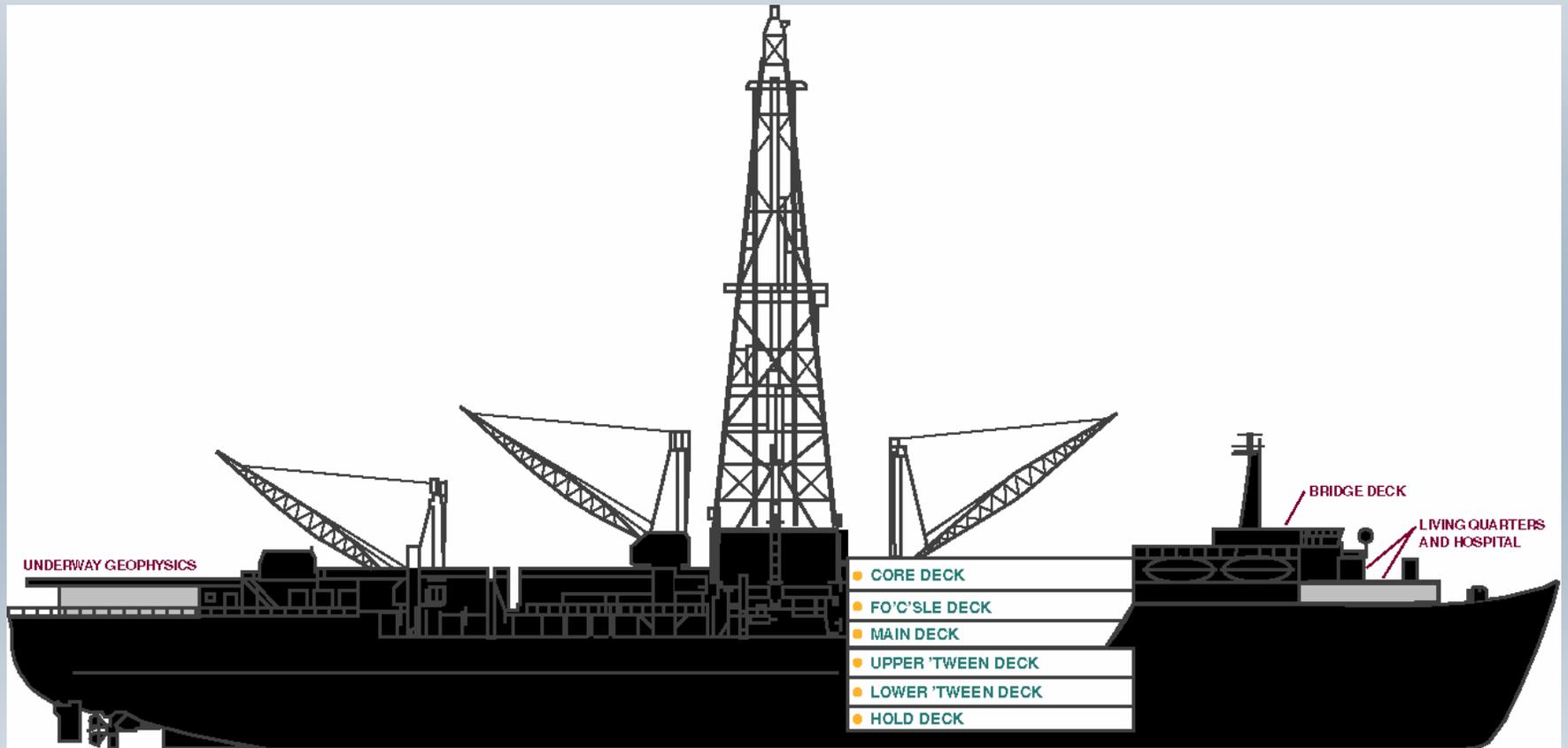
- Ensure structural integrity of vessel (hull, DP system, and stability).
- Increase scientific lab space and flexibility.
- Improve drilling, coring, sampling operations.
- Increase capacity for larger shipboard party.
- Improve habitability.
- Modernize health, safety, and environmental protections.



JOIDES Resolution: Current Configuration



U.S. SODV After ~30-ft. Stretch



Mission-Specific Platforms



- Operated by ECORD Science Operator (ESO)
- One mission per year to sites inaccessible to riser and riserless platforms:



2004: Arctic Coring Expedition (ACEX)

2005: Tahiti Sea Level

2007: New Jersey Shallow Shelf



IODP-MI

www.ecord.org

IODP Operations

Tom Janecek
Vice President, Operations



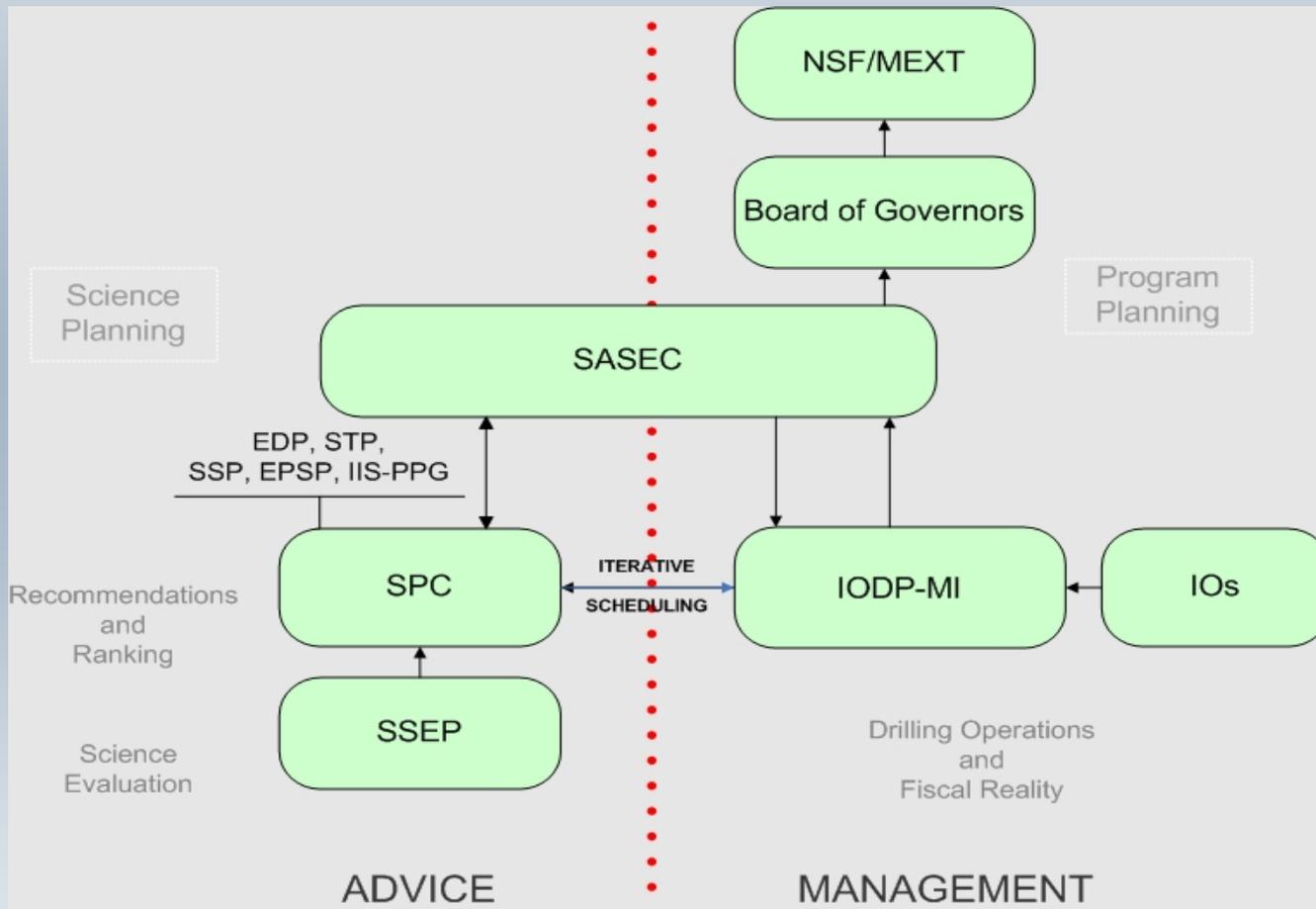
IODP-MI

Drilling Schedule: USIO and ESO Operations (2003-2005)

Expeditions	#	IO	Port (Origin)	Dates
Juan de Fuca Hydrogeology	301	USIO	Astoria, Oregon, U.S.A.	June 27 - Aug. 21 2004
Arctic Coring Expedition (ACEX)	302	ESO	Tromsø, Norway	7 Aug. - 19 Sept. 2004
North Atlantic Climate 1	303	USIO	St. John's, Newfoundland, Canada	Sept. 25 - Nov. 17, 2004
Oceanic Core Complex Formation, Atlantis Massif 1	304	USIO	Ponta Delgada, Azores	Nov. 17, 2004 - Jan. 8, 2005
Ocean Core Complex 2	305	USIO	Ponta Delgada, Azores	Jan.8 - March 2, 2005
North Atlantic 2	306	USIO	Ponta Delgada, Azores	March 2 - April 26, 2005
Porcupine Basin Carbonate Mounds	307	USIO	Dublin, Ireland	April 26 - May 31, 2005
Gulf of Mexico Overpressures	308	USIO	Mobile, Alabama, U.S.A	May 31 - July 10, 2005
Super fast Spreading Crust 2	309	USIO	Balboa, Panama	July 10 - Aug. 28, 2005
Tahiti Sea Level	310	ESO	Papeete, Tahiti	Oct. 6 - Nov. 17, 2005
Cascadia Margin Gas Hydrates	311	USIO	Balboa, Panama	Aug. 28 - Oct. 28, 2005
Superfast Spreading Crust 3	312	USIO	Balboa, Panama	Oct. 28 - Dec. 28, 2005



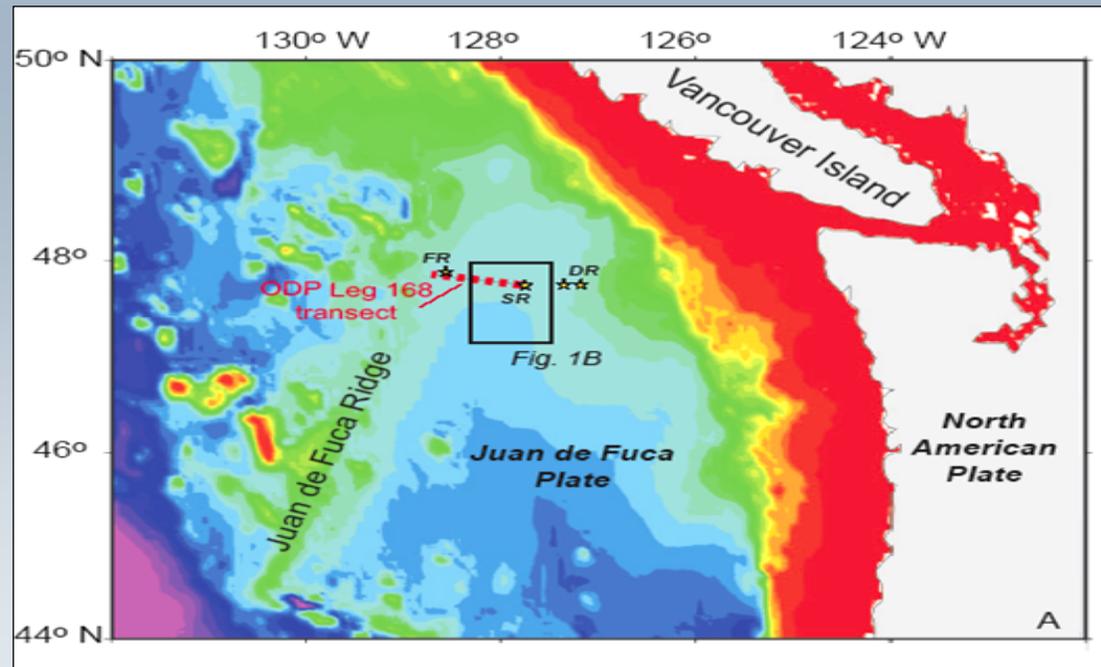
Flow of Scientific Advice for Expedition Scheduling



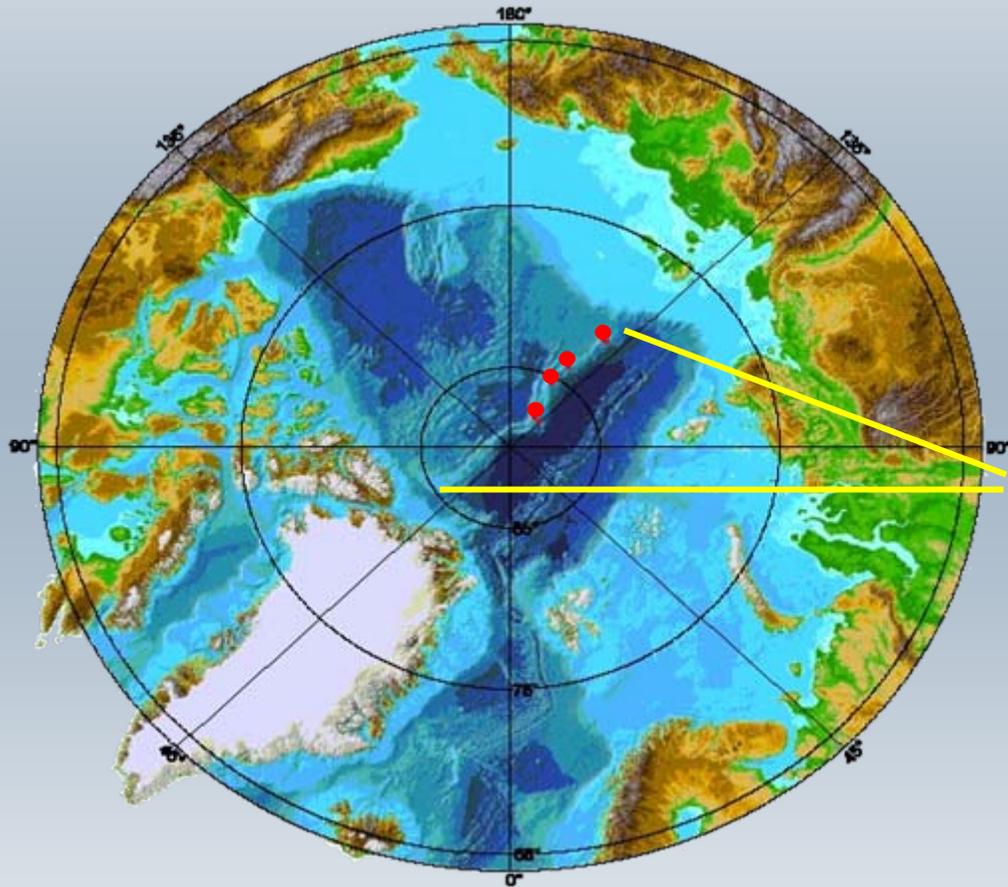
Juan de Fuca Hydrogeology Expedition 301

Objective:

To evaluate fluid flow in ocean crust by studying its hydrological, microbiological, and seismic properties.



Arctic Coring Expedition Expedition 302



Recovered first extensive series of sediment cores for the Arctic ocean seabed.

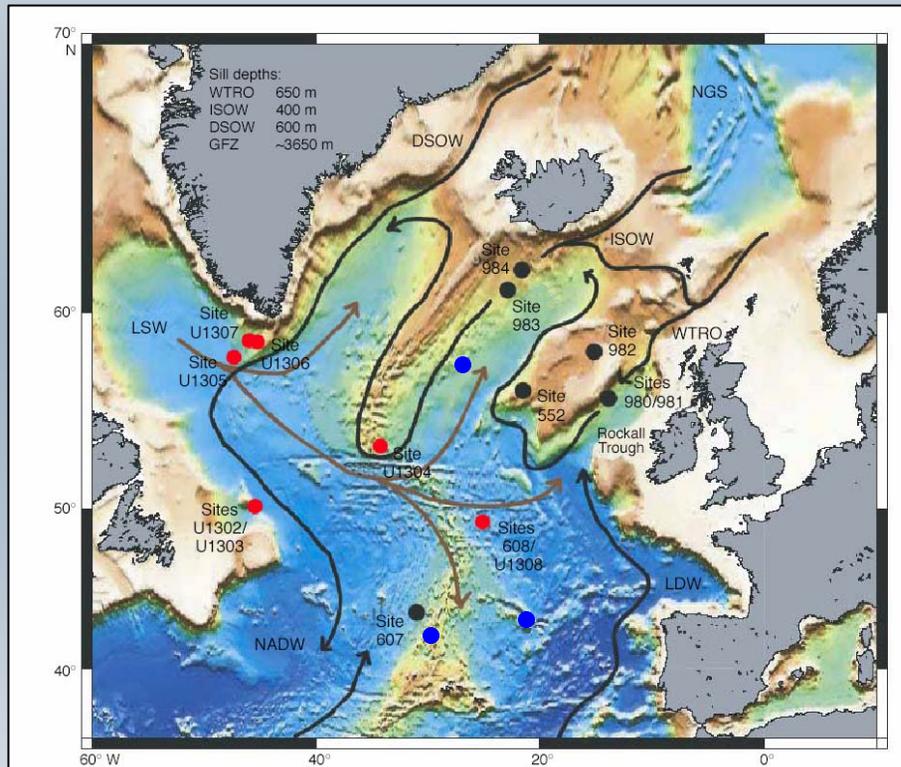
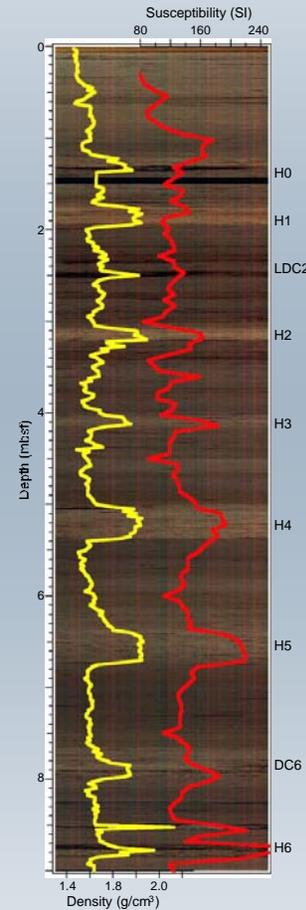
Sediments reveal that the North Pole was once a subtropical zone.



IODP-MI

North Atlantic Climate 1 & 2 Expeditions 303, 306

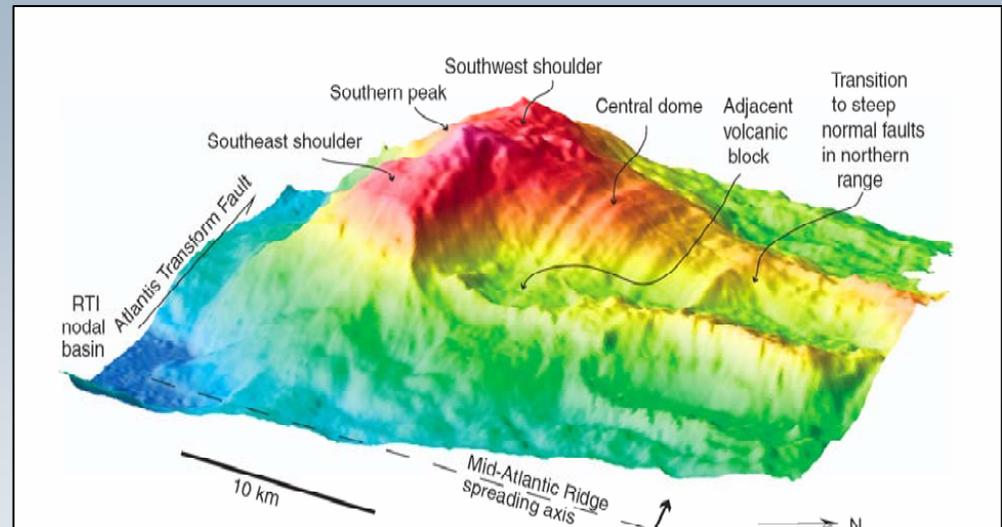
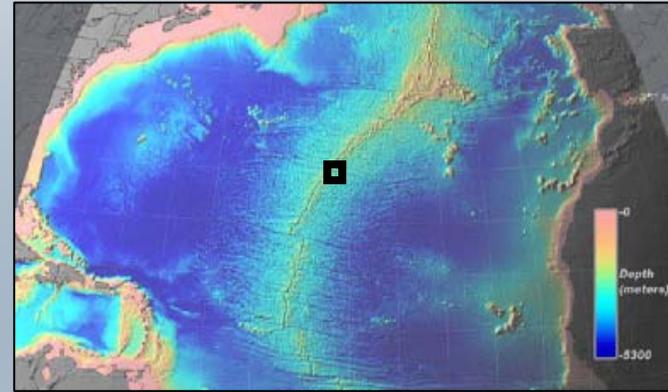
Continuous, high-resolution records of the past 1My indicate that the major Northern Hemisphere ice sheets were unstable during glacial periods.



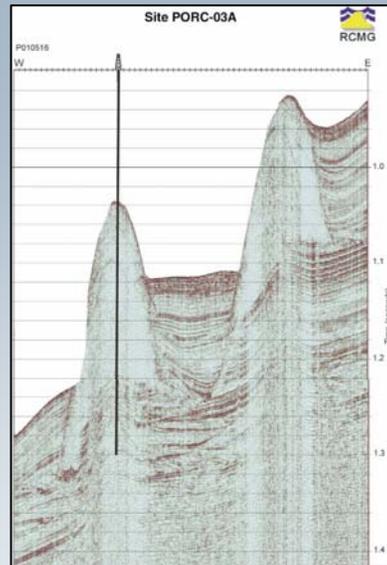
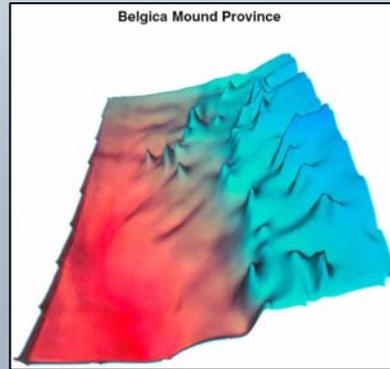
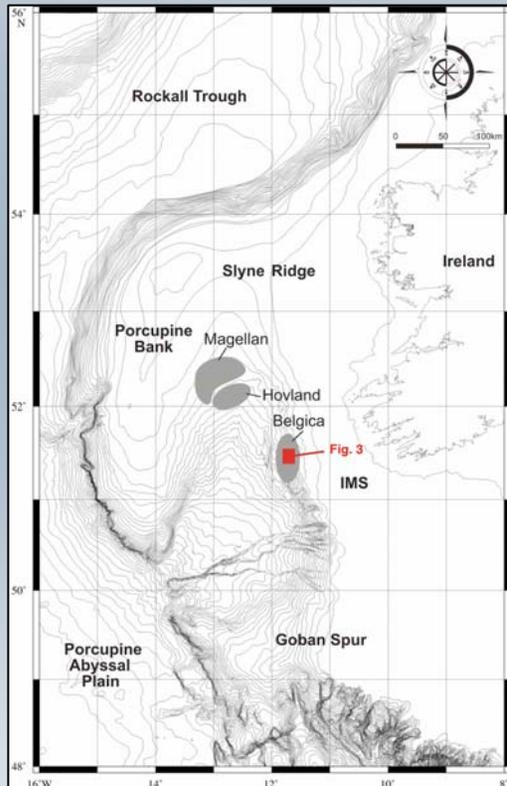
Oceanic Core Complex 1 & 2

Expeditions 304, 305

- Drilled third deepest hole in ocean crust.
- Studied variations in rock type, structure, and alteration with depth in ultramafics.
- Analyzed the alteration front within oceanic peridotite.
- Is the Moho a hydration front or the crust-mantle boundary?



Porcupine Basin Carbonate Mounds Expedition 307



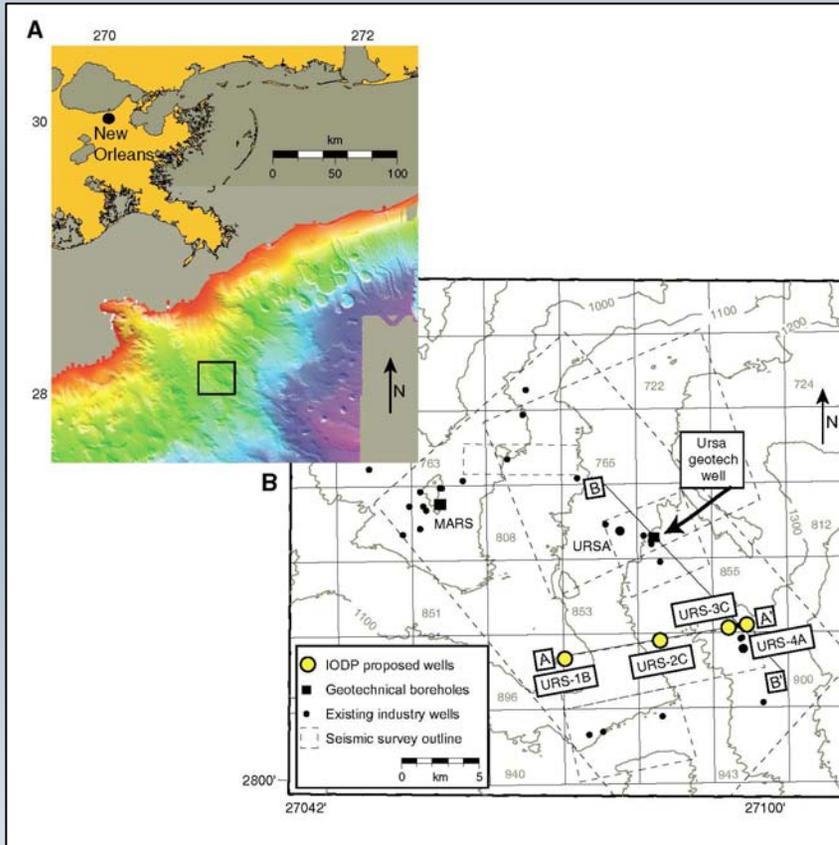
Objectives:

- Understand carbonate mound origin and evolution.
- Study role of fluid venting on mound growth.
- Analyze microbiological and biogeochemical processes that influence mound genesis and development.



IODP-MI

Gulf of Mexico Overpressures Expedition 308

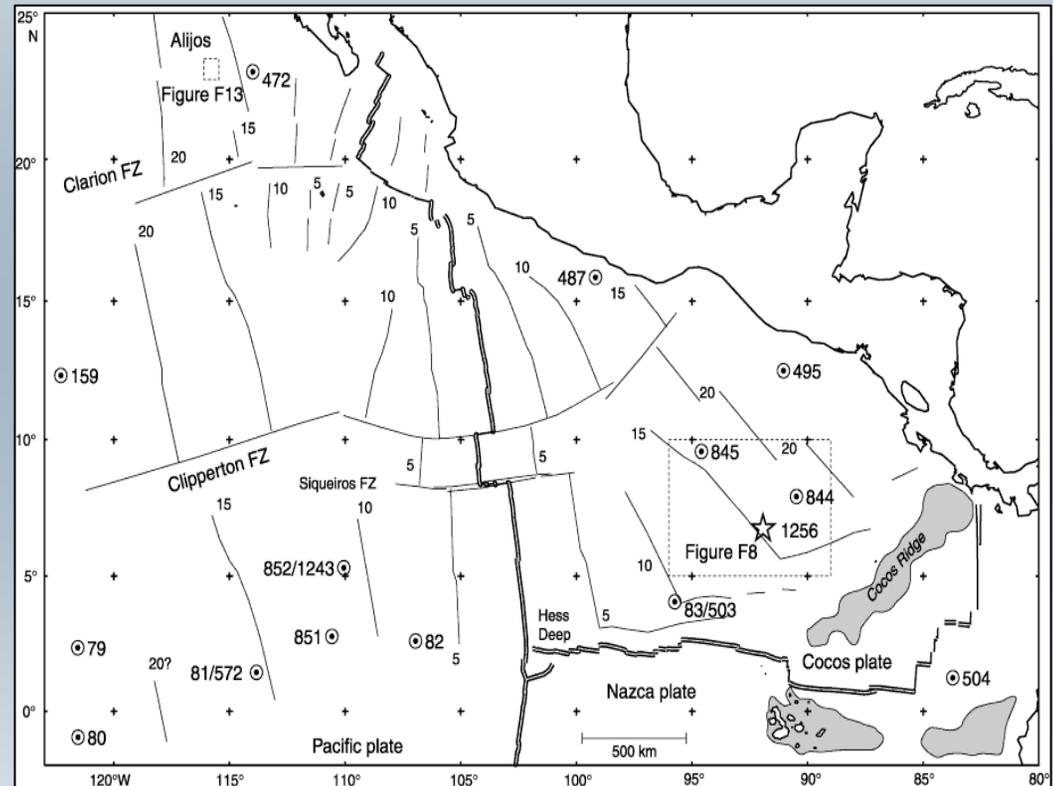


- Cores link catastrophic underwater avalanches to sea level changes in the Gulf of Mexico.
- Measurements While Drilling (MWD) and Logging While Drilling (LWD) were used as predictive coring tools and to assess the flow of overpressured fluids into the borehole in real time.

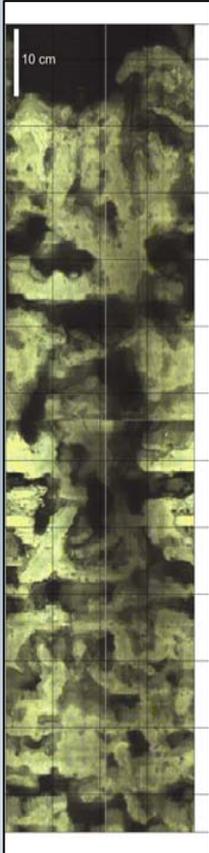


Superfast Spreading Crust 1 & 2 Expeditions 309, 312

- Drilled 1.4 kilometers into a superfast spreading center.
- Recovered a continuous section through volcanic basement into the uppermost plutonic rocks.



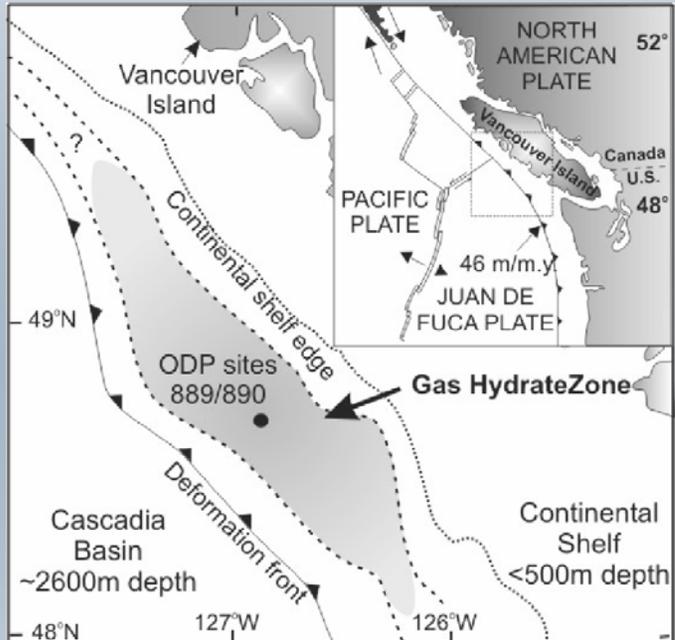
Tahiti Sea Level Expedition 310



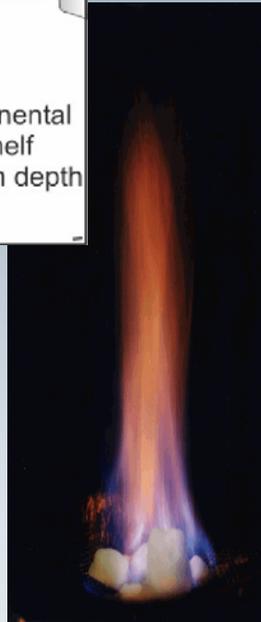
- Investigated global sea level rise since the last glacial maximum.
- Most extensive geologic research ever undertaken in a coral reef area.
- Total length of hole drilled = 1100m, recovered from 37 holes at 26 sites.
- Total core recovered = 632m
- Recovery = 57% (70% at the the last 10 sites)



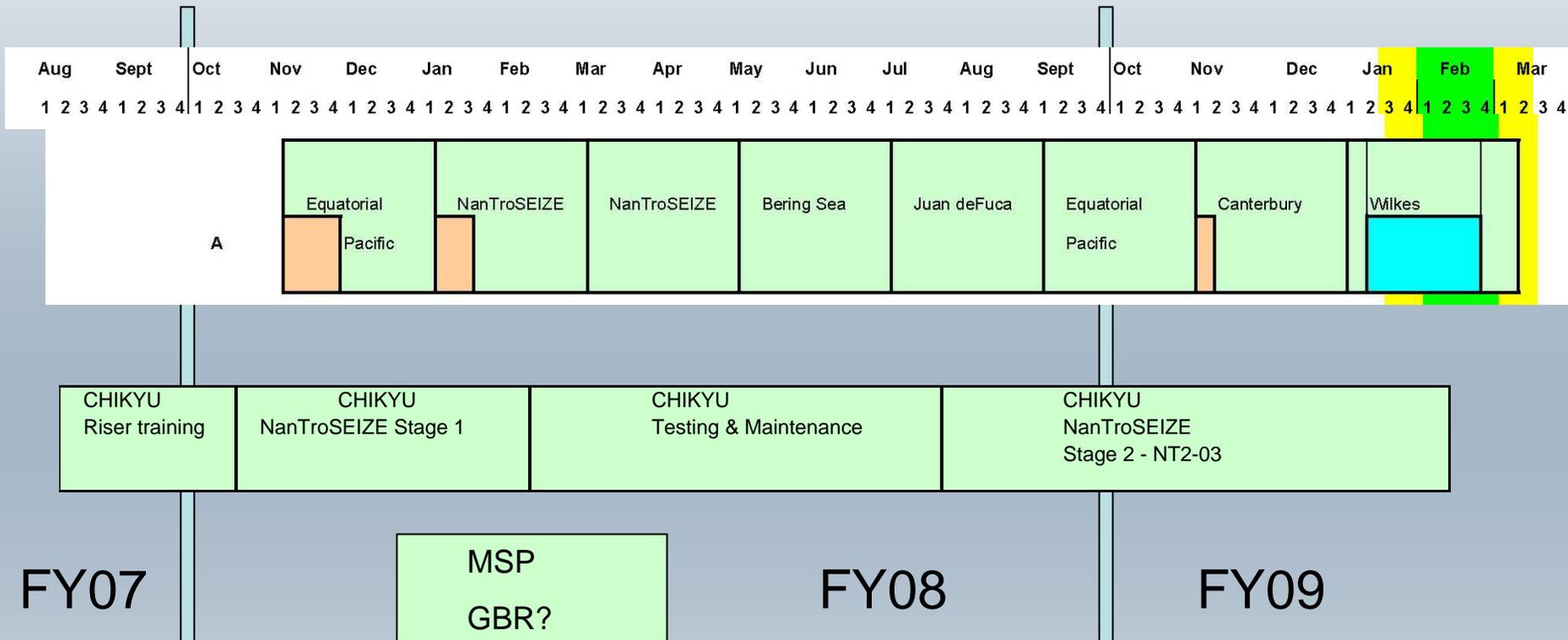
Cascadia Margin Hydrates Expedition 311



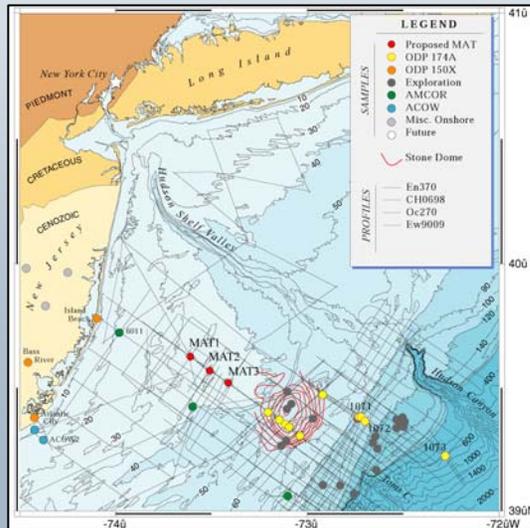
- What is the deep origin of the methane comprising gas hydrate?
- How is methane transported in the sediment?
- How is methane released into the ocean and the atmosphere?
- Does methane influence climate?



IODP Future Drilling Schedule



New Jersey Shallow Shelf Expedition 313

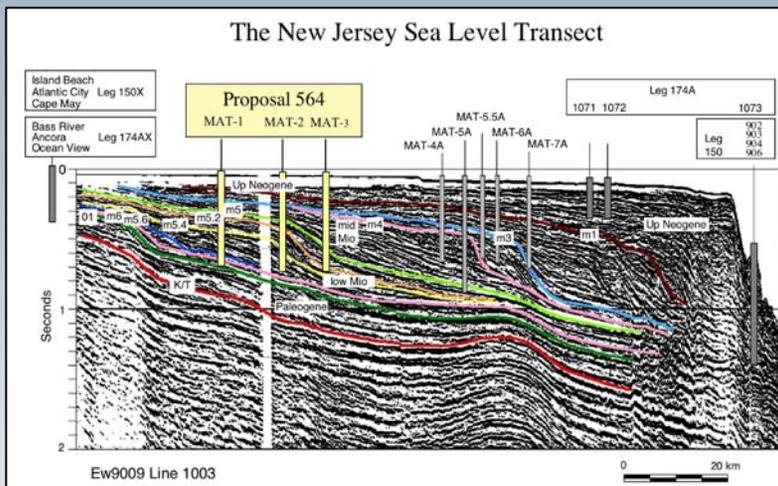


Objective:

- Obtain continuous cores, downhole logging measurements of sequences from a “modern” continental margin.

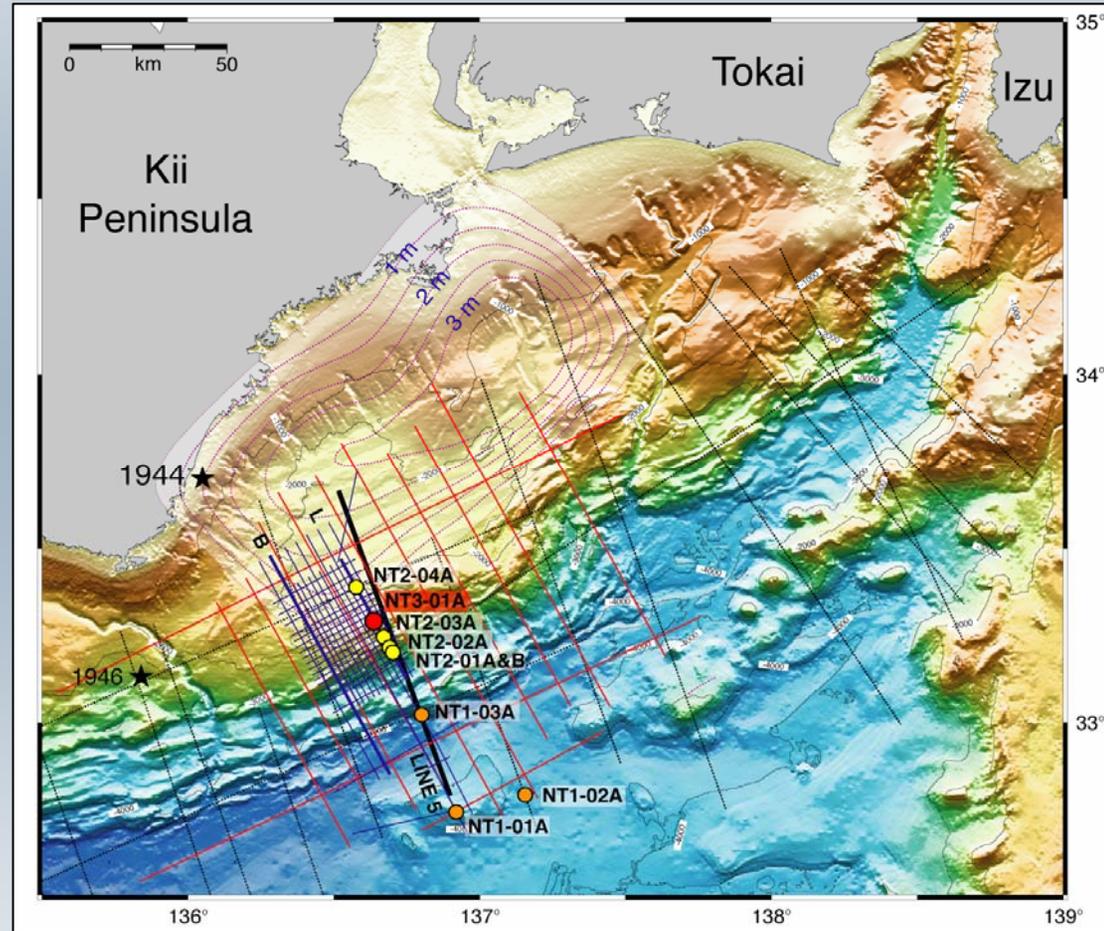
Coring goals:

- Correlate “icehouse” sequences with lowered sea level.
- Estimate magnitude, frequency, and forcing mechanisms of sea level change



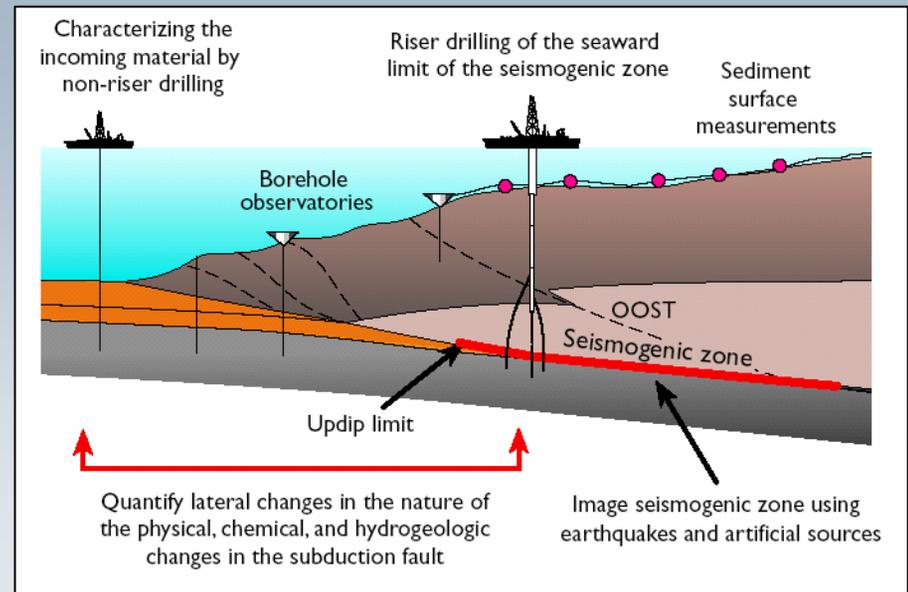
NanTroSEIZE

- 8 proposed drilling sites, to depths from ~500 to ~5500m below the seafloor (Previous ODP depth record is ~2200 m).
- Allied geophysical, seafloor studies.
- Sampling, logging, downhole testing, and long-term monitoring are all important.



NanTroSEIZE Objectives

1. Document material properties and state of the plate boundary fault system at several P-T and lithological conditions to test for stable vs. frictional behavior.
2. Investigate partitioning between seismic vs. aseismic processes on the main plate boundary through monitoring of seismicity, borehole strain, and pore fluid pressure.
3. Test for interseismic temporal changes in state – including possible earthquake precursory signals.
4. Calibrate observations in the broader geophysical volume surrounding boreholes.



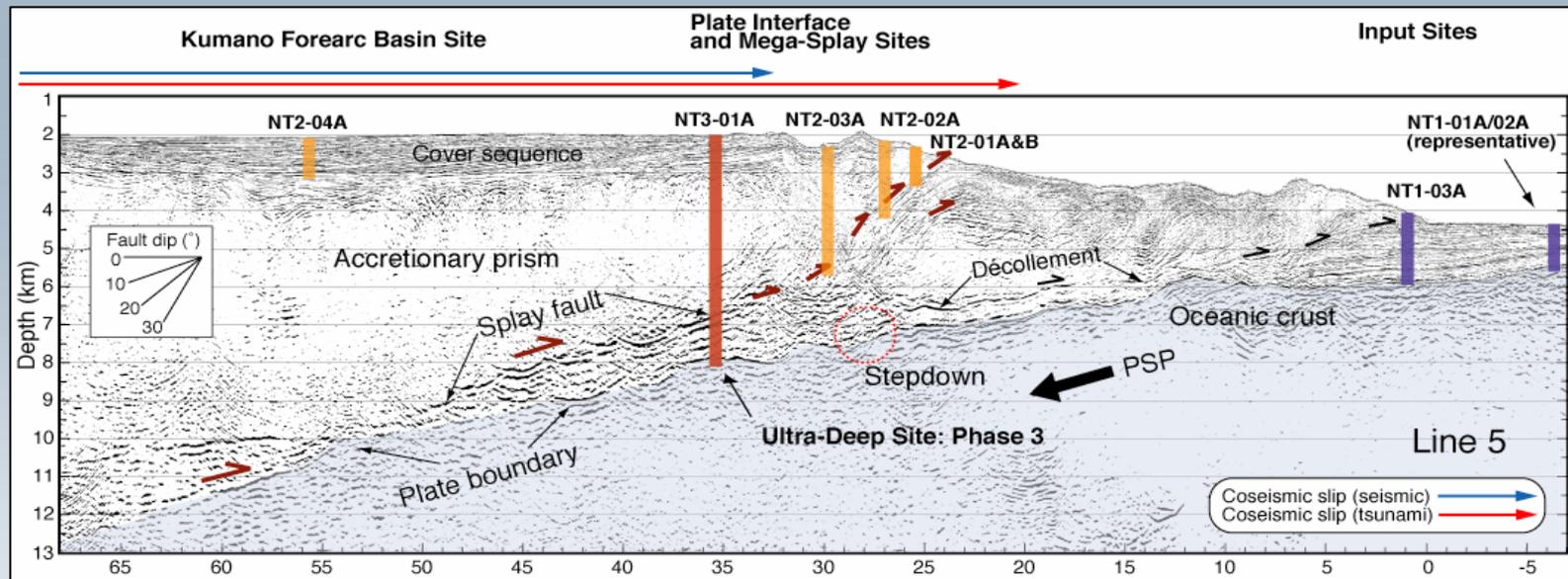
NanTroSEIZE: Phased Drilling Plan

Ongoing: Geophysical/Geologic Characterization

Phase I: Reference drilling: Incoming section and crust, borehole observations

Phase II: Splay fault mechanics and slip history (to ~ 3500m)

Phase III: Plate interface drilling and instrumentation (to ~ 6000m)



2006 Workshops

Kelly Kryc

Executive Program Associate



IODP-MI

IODP-ICDP Workshop on Fault Zone Drilling: Developing a Global Perspective

May 23-26, 2006, Miyazaki, Japan

www.iodp.org/fault-zone-drilling

Steering Committee:

Harold Tobin (chair), U.S.A.

Stephen Hickman, U.S.A.

Hisao Ito, Japan

Gaku Kimura, Japan

Jan Behrmann, Germany

Status:

Workshop is complete.

80 scientists participated.

Steering Committee has agreed to:

- Publish a short report in *EOS*
- Publish a 10-15 page workshop summary in *Scientific Drilling*
- Publish a report of short papers submitted by the workshop participants.



IODP-MI

International Workshop on Mission Moho: Formation and Evolution of Oceanic Lithosphere

Sponsored by IODP, JOI, Ridge2000, and InterRidge

Sept. 7-9, 2006, Portland, Oregon

www.iodp.org/ocean-lithosphere

Steering Committee:

David Christie (co-chair), U.S.A.

Benoit Ildefonse (co-chair), France

Donna Blackman, U.S.A.

Bob Duncan, U.S.A.

Emilie Hooft, U.S.A.

Susan Humphries, U.S.A.

Jay Miller, U.S.A.

Natsue Abe, Japan

Shoji Arai, Japan

Wolfgang Bach, Germany

Status:

- Workshop received ~130 applications.
- Steering Committee invited 85 participants.



IODP-MI

Investigating Continental Breakup and Sedimentary Basin Formation

An International IODP-MI Workshop

Sept. 15-18, 2006

Pontresina, Switzerland

www.iodp.org/continental-breakup

Steering Committee:

Mike Coffin, co-chair, Japan

Dale Sawyer, co-chair, U.S.A.

Neal Driscoll, U.S.A.

Shuichi Kodaira, Japan

Tim Reston, Germany

Tony Dore, UK

Status:

- Workshop received ~80 applications.
- 65 scientists and industry representatives were invited.
- IODP-France, UK, Germany, and Switzerland are each supporting additional participants.
- InterMARGINS contributed \$10K to support scientists from non-IODP countries.



IODP-MI

Exploring Subseafloor Life with IODP

Joint Workshop sponsored by IODP-MI and JOI

Oct. 3-5, 2006, Vancouver, Canada

www.iodp.org/subseafloor-life

Steering Committee:

Steve D'Hondt, co-chair, U.S.A.

Fumio Inagaki, co-chair, Japan

Paul Kemp, U.S.A.

Patricia Sobecky, U.S.A.

Mitchell Sogin, U.S.A.

Ken Takai, Japan

Kenji Kato, Japan

Bo Barker Jorgensen, Germany

Status:

- Workshop advertised in *EOS* and *Microbe* (ASM publication).
- ~85 applications were received by the June 21 deadline.
- Workshop steering committee will invite 60-65 participants by the end of July.



IODP-MI

Education and Outreach

Nancy Light
Director, Communications



IODP-MI

E & O Program Goals

- ❑ Position IODP as the most ambitious global marine research program operating in the world today.
- ❑ Brand IODP as Japan- and U.S.-led research partnership, with specialized MSP support from Europe, along with China, Korea.
- ❑ Communicate IODP research opportunities and resources to broader audience of scientists and engineers.
- ❑ Integrate and coordinate E & O efforts for strongest external impact.



Coverage Results

- Exp. 310 news release attracted 1,318 “hits” from journalists online; stories appeared in numerous European print and broadcast media.
- ACEX news release about *Nature* articles (authored by science party) generated global media “blitz,”--virtually every major news agency, big city news daily, and network broadcast outlet in 22 countries ran a story on May 31 or June 1.
- Major news stories appeared twice in one month in *NY Times*: ACEX (May 31 front page), Superfast Spreading Crust 3 (May 16, front national section).
- Other news placements on Discovery TV (2 programs), History Channel, BBC, *Pitch* (Dutch monthly science magazine), and Quark (Italian TV).



Outreach to Scientists

- **Bimonthly e-newsletter, *IODP E-News***
6 issues per year
Japanese and English versions posted online
- **Booth Exhibitions (FY05-06):**
AGU, EGU, AOGS, JGU
Materials sent to smaller conferences: California, New Zealand. EuroForum
FY06-07 Target: Double number of exhibitions
- **Town Hall Meetings**
AGU 2005, EGU 2006



Outreach Video

- Production underway for Smithsonian Institution “Ocean Hall” to open in Sept. 2008.
- Four 1-minute videos will feature:
 - 1) IODP overview
 - 2) Jan Backman on ACEX
 - 3) Karen Bice on black shales and climate modeling
 - 4) Bob Duncan on large igneous provinces
- Creating video library for use in commercial TV placements.
- Independent IODP video to be produced for general program outreach.



IODP-MI Contracts

John Emmitte
Contracts Officer



IODP-MI

AESTO subcontract:

- Initiated in 2004 to assist in operation and managing the IODP-MI Sapporo office.
- Includes funds for office administration support, science planning, SAS meeting coordination, and technical oversight of the SSDB.

NERC/BGS subcontract:

- NERC is responsible for MSP science operations on behalf of IODP.



JAMSTEC:

As the Japanese IO, CDEX will be responsible for delivering a full suite of vessel, drilling, information and publication services, and education and outreach activities starting in August 2007 when a contract is signed.

Bremen:

- **Subcontract for the provision of core repository services for IODP.**



Joint Oceanographic Institutions:

- As the USIO, the JOI Alliance is responsible for delivering a full suite of vessel, drilling, information and publication services, and education and outreach activities.

Site Survey Data Bank:

- Scripps Institution of Oceanography will provide services to receive and archive scientific ocean drilling related electronic and digital data in support of the SSDB.
- Overall goals are to encourage digital participation for proponents, facilitate proposal review, and provide a secure and accessible archive of information.



Science Planning

Hans Christian Larsen
Vice President, Science Planning

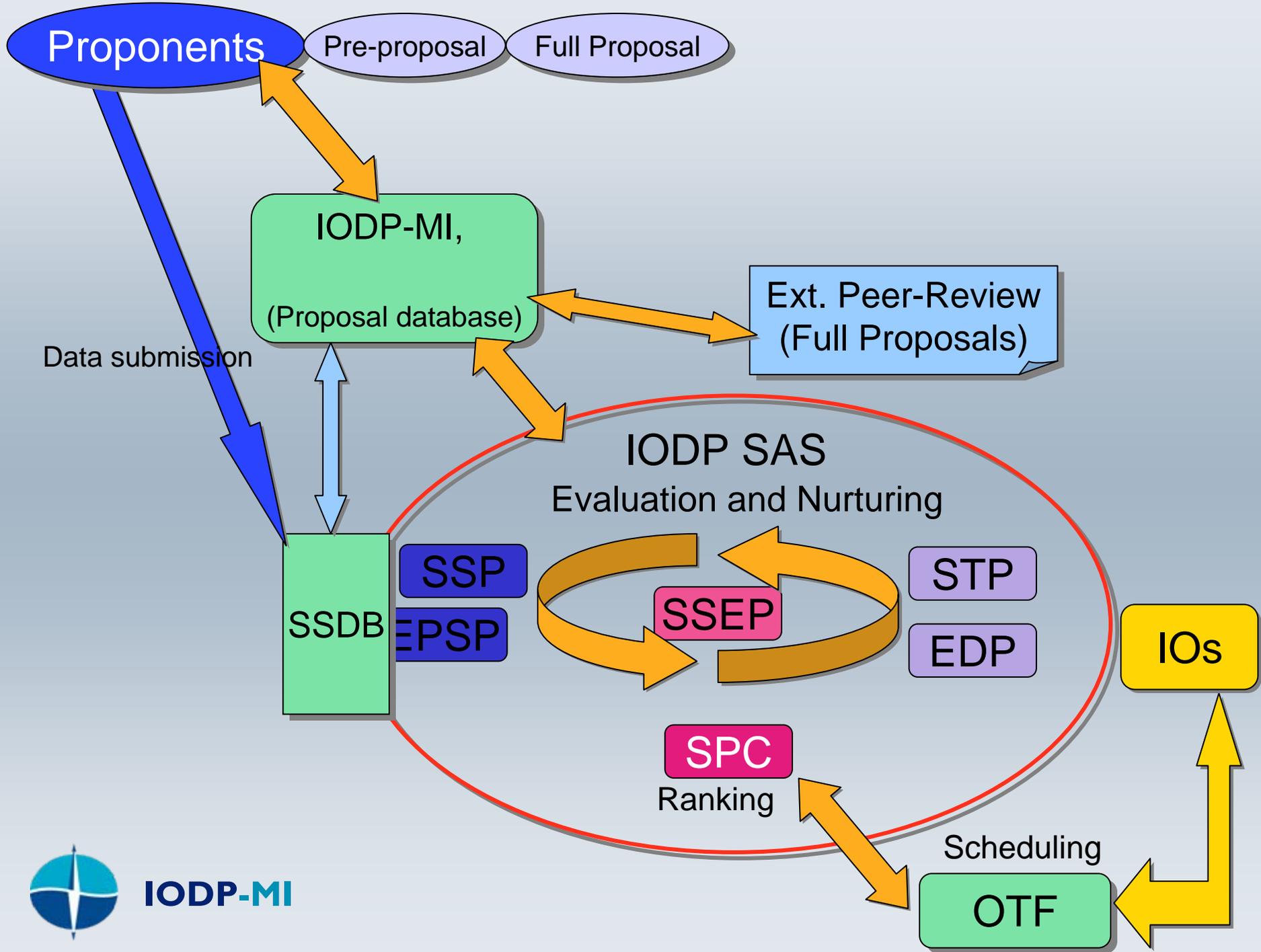


IODP-MI

Science Planning Activities

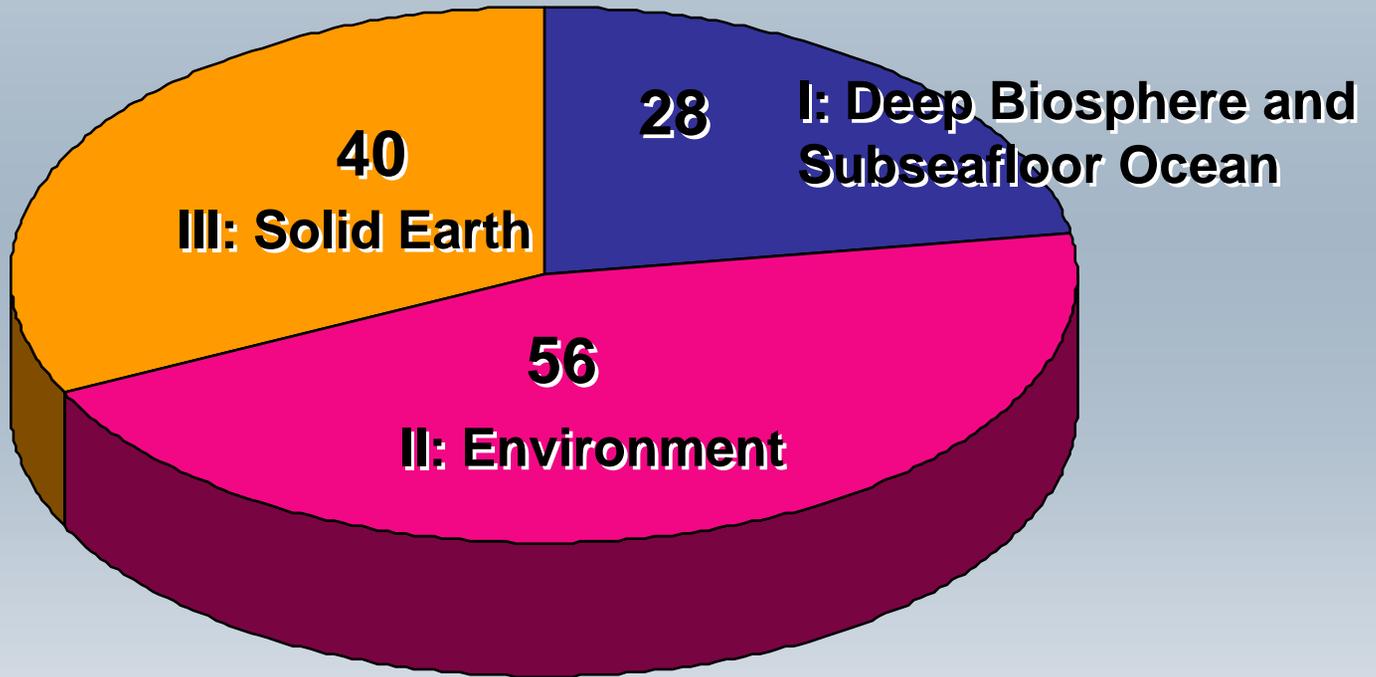
1. **SAS, Proposal & Site Survey Data**
2. **Publications**
3. **Data Management**





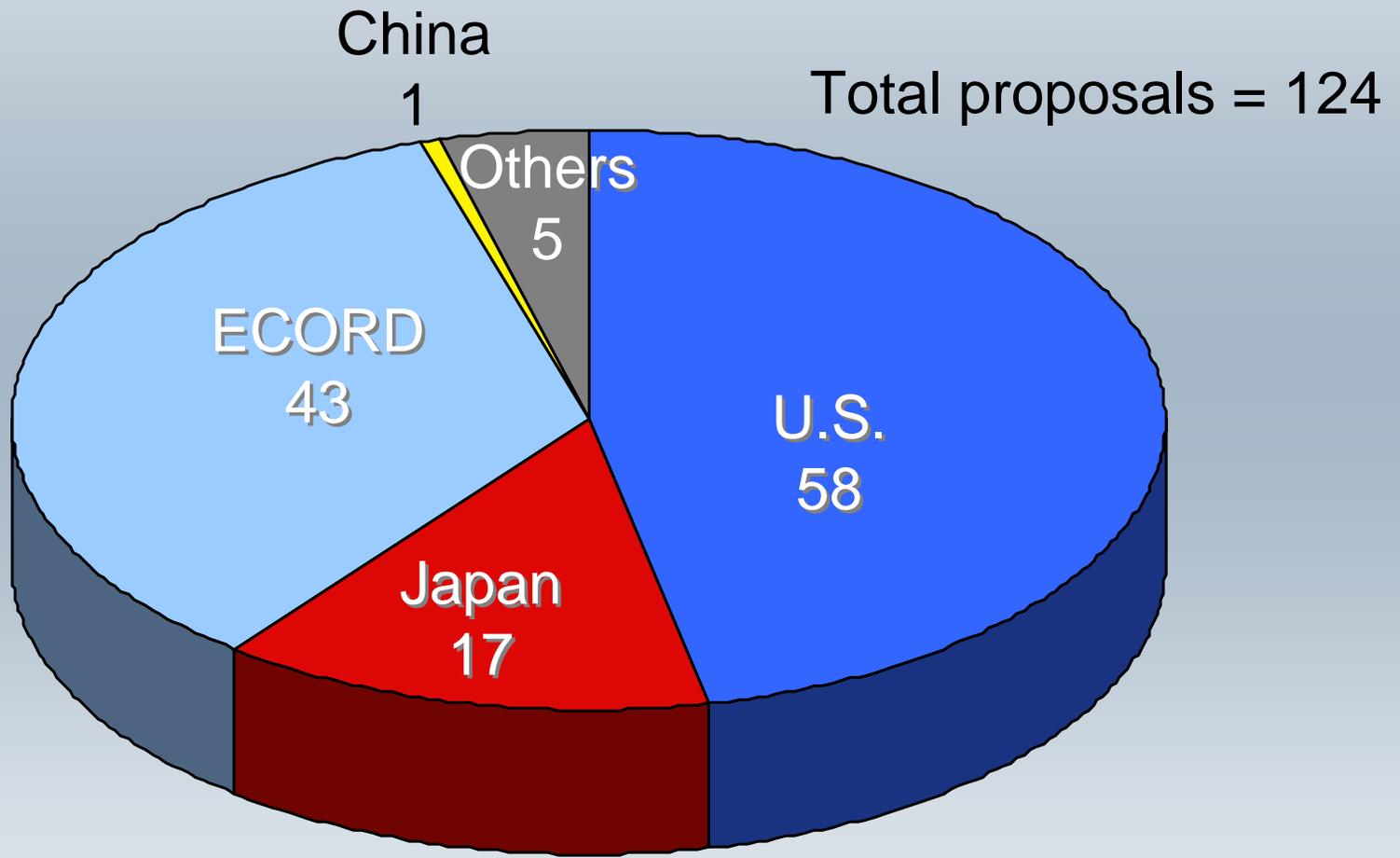
Active Proposals: 124 (as of June 2006)

By ISP Themes

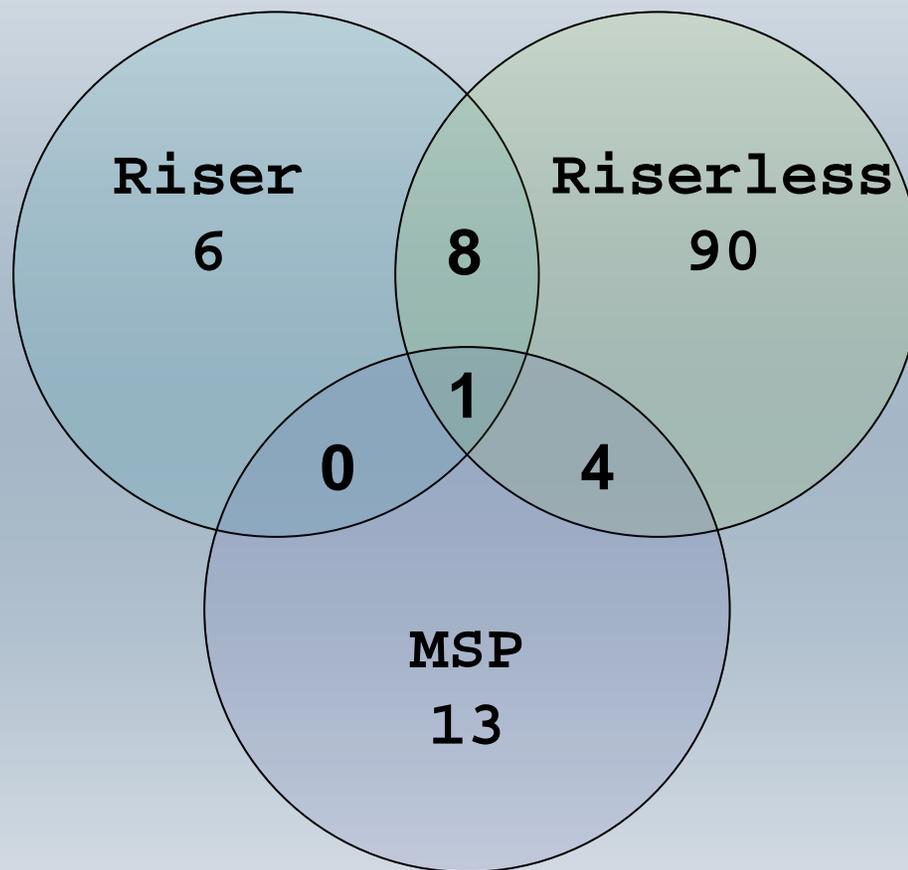


Proposal distribution by IODP Members

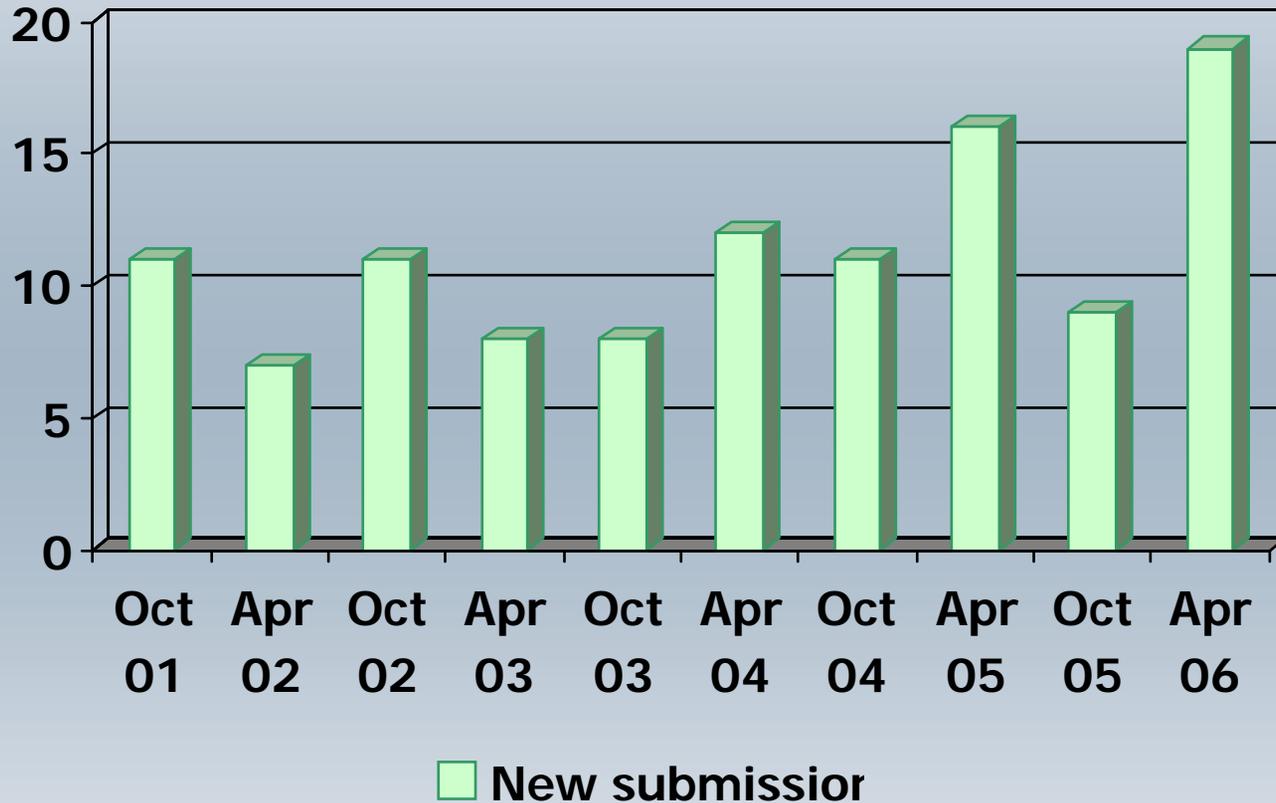
(by lead proponent)



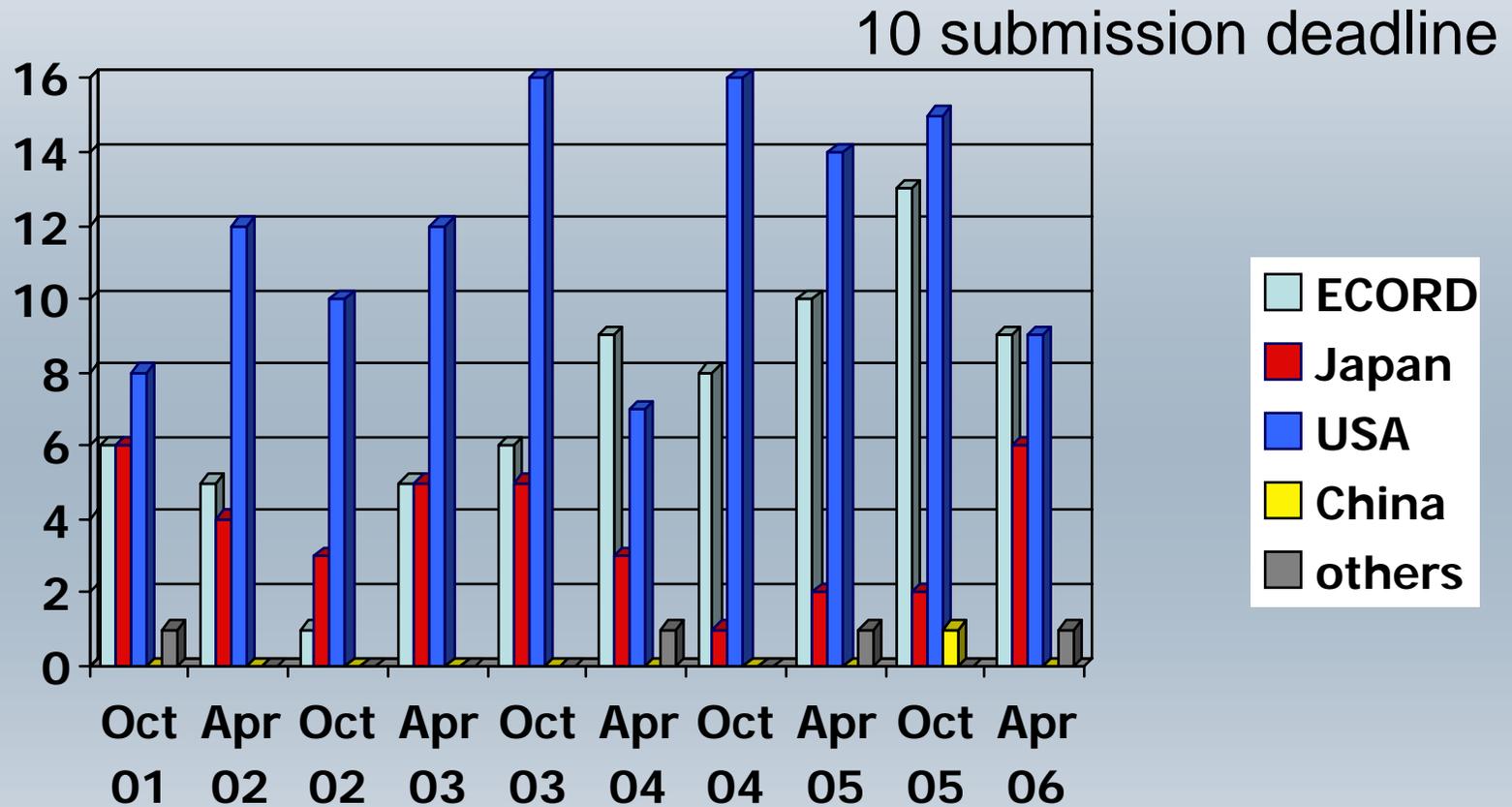
Request for Drilling platforms: Active proposals



New proposal submission (total)



Proposal submission (by member)



Science Planning Activities

1. SAS, Proposal & Site Survey Data

2. Publications

3. Data Management



IODP Scientific Publications

Electronic and Web-based Publications:

- Report Series are produced by IOs
 - *Scientific Prospectus* (html, PDF)
 - *Preliminary Report* (html, PDF)
 - Technical Reports
- *Proceedings of the IODP*
(produced by the IOs in html, PDF, DVD)

Printed Publications:

- *Scientific Drilling Journal*
(produced by IODP-MI, published jointly with ICDP)

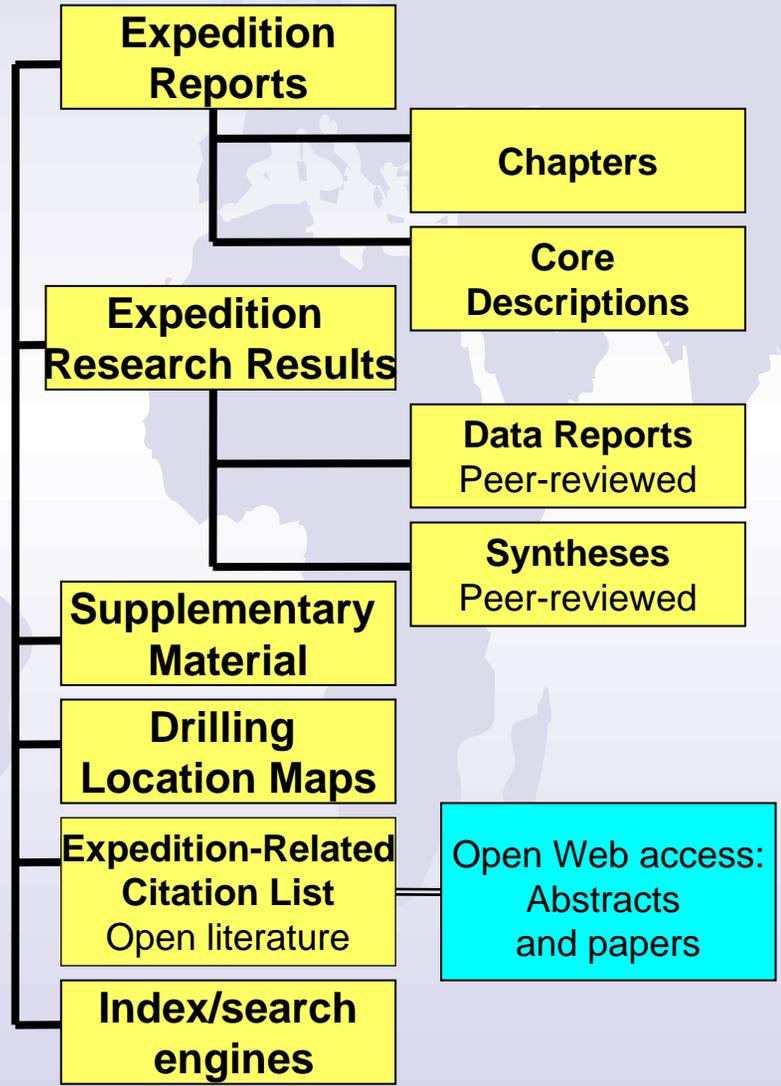


IODP Publications Structure

IODP Report Series

- Technical Notes
- Scientific Prospectus
- Preliminary Reports

Proceedings of the Integrated Ocean Drilling Program

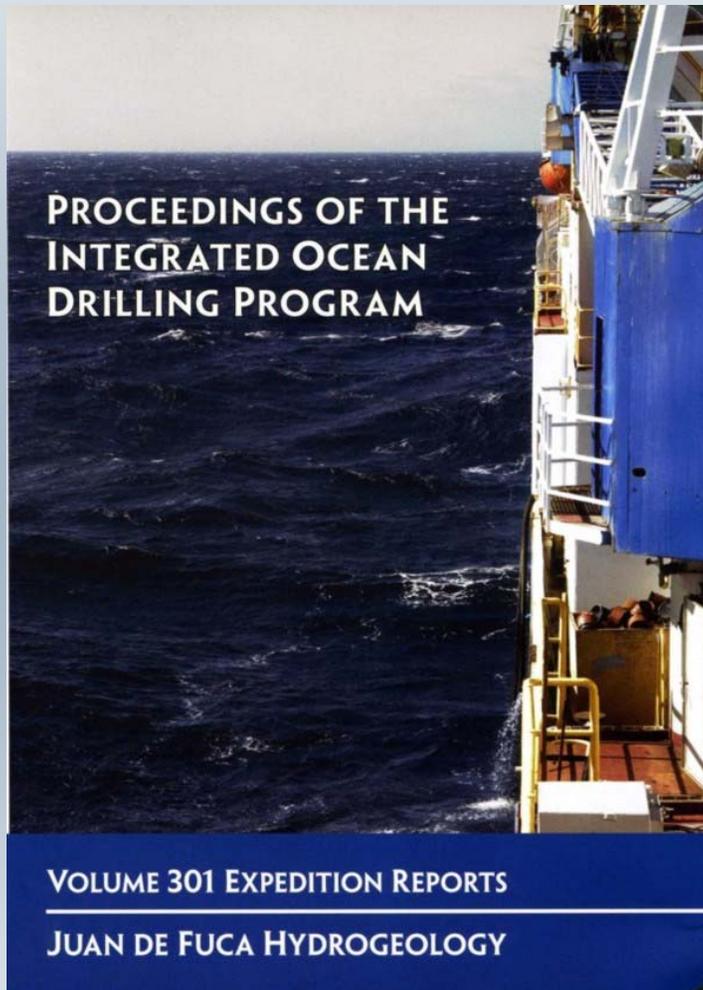


Program Journal

in Collaboration with ICDP

- Scientific Drilling**
- Program edited
- Not peer-reviewed
- (Print and Web)

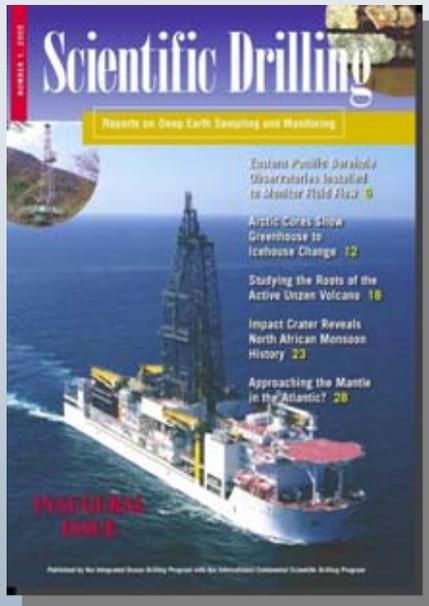
Proceedings of the IODP



- The *Proceedings* are dynamic electronic publications.
- Expedition Reports are uploaded one year post expedition.
- Scientific specialty papers are published in the open literature and listed in the *Proceedings*.
- DVDs with Expedition Reports, including core descriptions and all expedition data, are also available.



IODP-MI

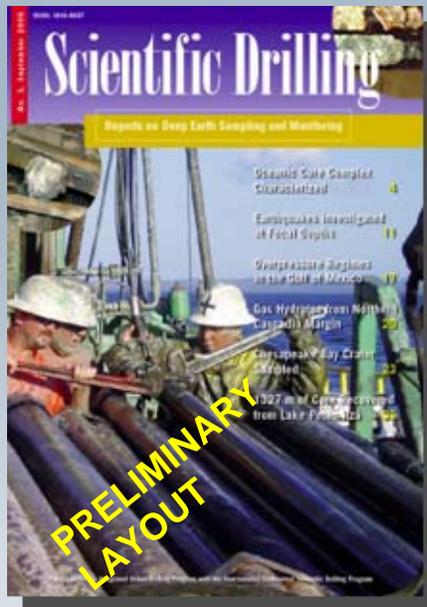


IODP Program Journal

Scientific Drilling

Reports on Deep Earth Sampling and Monitoring

- Co-published with ICDP
- 2 issues / year, ~50-60 pages / issue
- Third issue in Sept. 2006
- Target audience: broader Earth science community
- **Content:**
 - program and expedition reports
 - technical developments
 - project progress reports
 - workshop reports & news items
- 3 IODP editors, 1 ICDP editor
- DOI-referenced; internally reviewed
- Distributed free of charge (6,500 copies)



Science Planning Activities

1. SAS, Proposal & Site Survey Data

2. Publications

3. Data Management



IODP Scientific Data Management

- **Proposal database (IODP-MI)**
- **Site Survey Data Bank (IODP-MI/subcontract)**
- **Platform-generated data (IO databases)**
- **Sample information and distribution (IOs/IODP-MI)**
- **Post expedition-generated data & Publications (IOs/IODP-MI)**
- **Program Data Portal (SEDIS) (IODP-MI)**



Sample Materials Curation System (SMCS)

IO-based system coordinated by IODP-MI

Developed by USIO (subcontractor)

Key Features:

Inventory of all samples metadata for all IOs

Inventory of all samples request for all IOs

Exchange samples metadata between databases

One-stop web portal for curators and users

Timeline:

Online in 2007



IODP-MI

SEDIS

Scientific Earth Drilling Information Service

<http://sedis.iodp.org>

Phase I: Metadata catalog provides searchable inventory of all borehole data for IODP (ODP/DSDP).

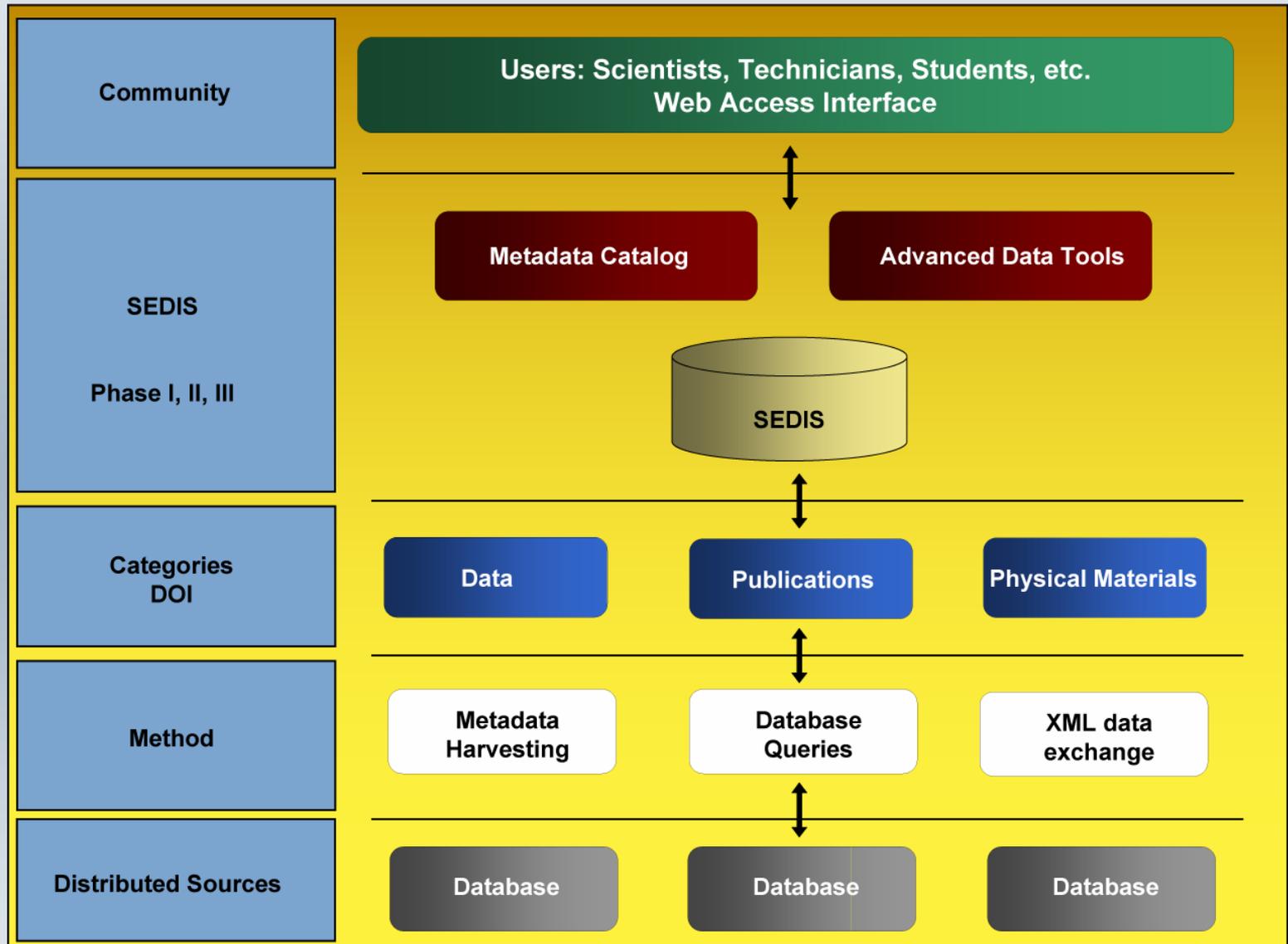
Phase II: Add scientific publications to metadata catalog. Tools to search publications from distributed databases, including content-based searches.

Phase III: Search and extraction of data from distributed databases. Mapping and data-visualization tools.

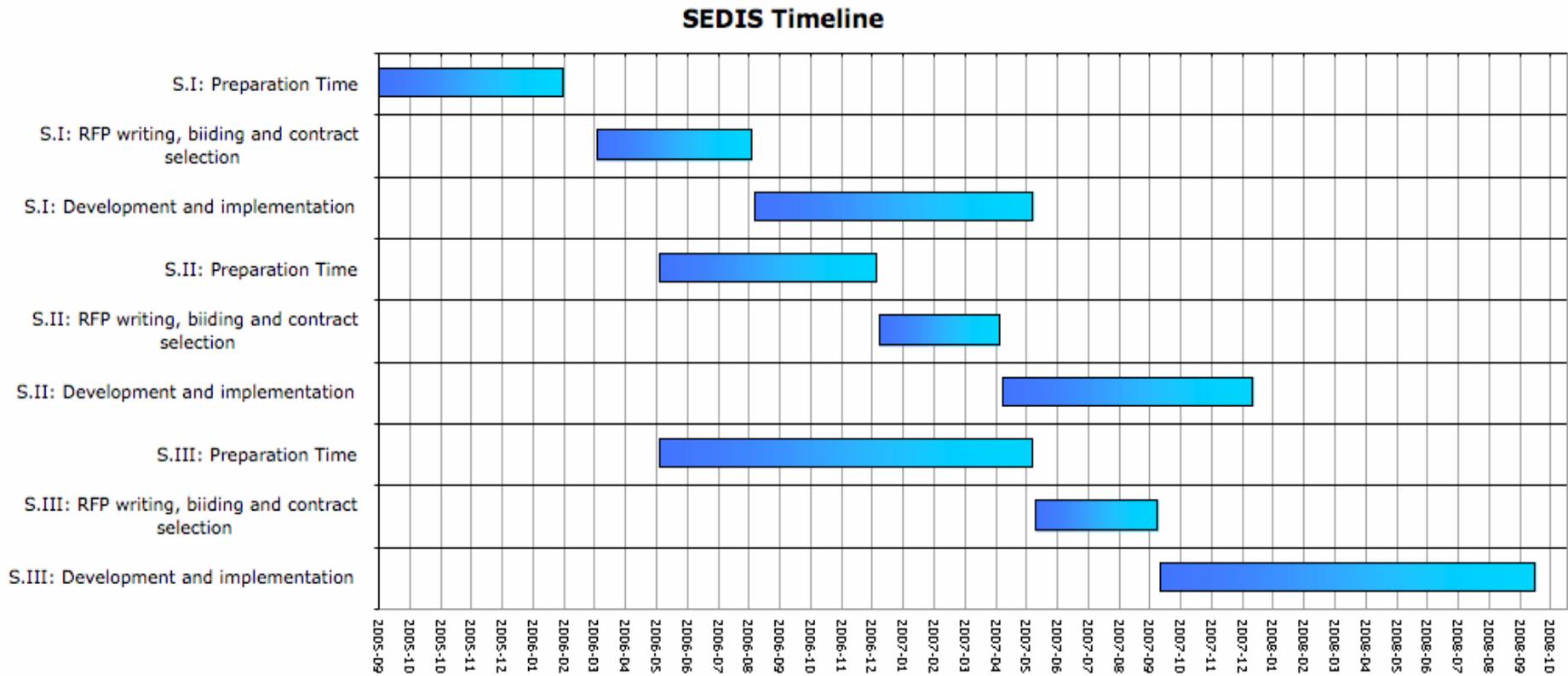


IODP-MI

SEDIS OVERVIEW



SEDIS: Timeline



IODP New Membership

Yoichiro Otsuka

Senior Advisor to the President



IODP-MI

IODP Membership

Lead Agencies: USA (NSF) and Japan (MEXT)

Contributing Member: ECORD

Austria, Belgium, Canada, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom

Associate Members:

People's Republic of China

Republic of Korea (Interim Asian Consortium)

Potential Members: Australia, India, Brazil, New Zealand, Russia



IODP-MI

Questions?

For more information
visit the IODP web portal:
www.iodp.org



IODP-MI