

DRAFT 1.6.1 (19 August 2003)

Minutes

Joint Meeting of the Interim
Scientific Steering and Evaluation Panels for the
Dynamics of Earth's Interior (ISSEP) and Earth's Environment (ESSEP)

May 22-25, 2003

Niigata University and Toki Messe, Niigata Convention Center, Niigata (Japan)

Thursday, May 22 9:00 - 18:00

1. Opening and Introduction of Members

The formal part of the Niigata SSEP meeting began following an enjoyable optional day field trip "Middle Miocene oil/gas and alcohol fields in Niigata" on 21 May lead by Dr. Kouichi Hoyanagi (Shinshu University), Dr. Susumu Kato (JAPEX), Dr. Hiroyuki Arato (Teikoku Oil), and Dr. Norie Fujibayashi (Niigata University). The fourth and the last meeting of the interim Scientific Steering and Evaluation Panels was opened by Hitoshi Mikada, who explained four working group discussions to be proceeded in the afternoon. He also explained how to proceed with group discussions on IODP Guides and SSEP structures to be conducted in the later part of the meeting. Introduction of all the members in the room began with Norie Fujibayashi, who was a hosting member.

2. The minutes from previous Montpellier meeting were approved.

3. Joint session for iESSEP and iISSEP, Reports

3.1. MEXT Report (O. Miyaki)

Osamu Miyaki first reported on "Chikyu" construction with its secured budget of US\$105M for JPFY 2002 and US\$65M for JPFY 2003. The preparation for Chikyu operation will require US\$14M for JPFY 2003 and hence a total of 184M will be required for JPFY 2002-2003. Thus, 95% of construction money has been already approved. This includes budgets for site surveys.

He explained on the latest development on MEXT and NSF- agreement, which was the form of the Lead Agency Memorandum, signed by the NSF Director and MEXT Minister in Tokyo on April 22, 2003. NSF and MEXT has been continuously developing draft contract with CMO. IWG meeting will be held in Capri, Italy on 11-13 June, 2003. Mr. Shingo Satomura was appointed as IODP Unit Chief in Ocean and Earth Division, MEXT as of 1 April, 2003. Finally, a message from Daisuke Yoshida, Director for Ocean and Earth Division, MEXT, was relayed with his greetings and blessing towards success of the iSSEPs meeting in Niigata.

3.2. NSF Report (T. Byrne)

Tim Byrne reported about the Memorandum signed by NSF and MEXT finally materialized after 10 years of hard work towards IODP. NSF budgets have seen 12-13% increases in ocean science and geosciences and they will be doubled in the next several years. NSF has changed its strategy in drill ship operation. That is, a non-riser drilling ship will be available for drilling for IODP in summer of 2004. 2005 and 2006 will be the time for renovation or for a new ship to be designated. There will be an overseeing committee above SPC in IODP. This is Science Planning and Policy Oversight Committee (SPPOC), which will be essentially equivalent of the former EXCOM. Thus, the governing bodies of IODP will be held by SPPOC as an internal body and IMI as an outside body.

He further described that NSF has requested that the US Science Support Program quickly identify a process for selecting: (1) US members of the IODP Science Policy, (2) US members of the Science Planning Committee; and (3) SPC Vice-Chair. As a near future

plan, on May 29 and 30, NSF, MEXT and the Interim IODP CMO will meet in Austin, TX to discuss start-up activities, including the establishment of a Science Policy.

3.3. ECORD Report (G. Camoin)

Gilbert Camoin gave a report from ECORD, the European Consortium for Ocean Research Drilling, which is the official European consortium for IODP. ECORD aims to provide co-mingled funds equivalent to 2 participation units for the first 4 years of IODP and will provide additional funds for Mission-Specific Platform (MSP) operations for 2004. Thus, ECORD's primary intention is to push for drilling using MSPs (mission specific platforms). Europe intends to provide MSPs for the areas inaccessible to riser-less and riser ships, whose missions are necessary to accomplish goals of the Science Plan, whose plans must be dealt case-by-case basis.

Two important meetings were held:

- ESSAC--Terms of Reference in Amsterdam, January 17th, 2003: and
- EMA and ESO in Dublin, April 24-25th, 2003.

The structure of ECORD is constituted by (1) EMA, which is an agency of the ECORD management, (2) ESO, which governs operation, and (3) ESSAC, ECORD science support and advisory committee. These three subgroups are mediated by interim ECORD council, which oversees the whole entity.

Major roles of the ECORD Management Agency (EMA) are:

- Organize the European participation to IODP, which is done with the following actions:

- Memorandum Of Understanding (MOU) with European partners
- MOU with the US and Japan
- Contracts with European partners to raise the funds
- Contracts with NSF and MEXT for the European IODP funds
- Contracts with ESO to operate the « MSPs »
- Support ESSAC for the scientific activity.
- Promote IODP in the European funding agencies.
- Dissemination of Information to the public

Major tasks of ESSAC (ECORD Science Support and Advisory Committee) are:

- Scientific management of the Programme for the European countries.
- Interacting with the IODP Central Management Office (CMO), SAS and IODP scientific bodies.
- Nominating representatives on SAS panels.
- Coordinating applications for shipboard participation.
- Initiating and monitoring Workshops.
- Providing stimulation and guidance for the writing of drilling proposals in accordance with the IODP Initial Science Plan and encouragement of IODP-related activities among participating countries.

Assisting and advising ESO and/or EMA are done:

- On the development of scientific planning and priorities for ECORD.
- On the preparation of a Science Operations Plan and budget for MSP operations which is to be presented to the EMA and the ECORD Council to ensure a constant flow of funds for MSP operations by coordinating and preparing funding proposals to the European Commission and other funding bodies.
- On the public outreach within and beyond ECORD member countries to raise public awareness and inform funding agencies, the public, the scientific community, schools etc. on scientific advances made through IODP drilling, and the benefit to society of the work carried out through Europe's participation in IODP.
- In encouraging new members to join ECORD.

Camoin then distributed ECORD's brochure, which clearly describes its roles of European participation in IODP.

3.4. IMI Report (K. Suyehiro)

Kiyoshi Suyehiro presented the recent chronicle of IODP Management International, Inc. (IMI), which has been established on 1 March 2003. On December 4-5 2002 the IMI Founders' meeting took place in San Francisco and they agreed on 6 Japanese and 6 US

interim officers reflecting the funding scheme of IODP. On March 27-28 2003 the founders, members and board of governors (BOG) met in Honolulu and reached the following conclusions"

- Adopted IMI by-Laws
- Approved new members (7J and 15 US institutions)
- approved Board of Governors (10 and 4 alternates)
- Search Committee established for president and office location
- IMI-Japan office in Sapporo with Science Planning Director; IMI-USA office with Program Operation Director
- Recommended Science Planning and Policy Oversight Committee (SPPOC) as executive authority of SAS.

The plan for the forthcoming IMI related meetings and the approval schedule for committee members such as those of SPPOC and SPC are also presented. The decision concerning the nomination of a permanent IMI President will occur during the BOG Seattle meeting September 9 and 10, 2003. Information concerning IMI can be accessed via [<http://www.ig.utexas.edu/imi/>]

3.5. J-DESC Report (Y. Tatsumi)

The newly formed Japan Drilling Earth Science Consortium (JDESC), which is equivalent of USSAC or ECORD, was introduced by Yoshi Tatsumi. This group was formed in February in order to promote drilling activities among the Japanese scientific community. JDESC will recommend IODP panel members and IMI members from Japan. It also aims at assisting in getting Japanese government funds for drilling activities.

3.6. iPC/IWG Report (T. Moore)

Ted Moore as an iPC Chair first reported the recent signing of Memorandum of Understanding (MoU) between NSF and MEXT. He then stressed the importance of smooth transition from iSAS to SAS, maintaining the chairmanships of various committees. However, iPC Co-Chairs will change from T. Moore and H. Kinoshita to Chair and Vice Chair whose terms are for two years. The Vice Chair will become Chair, after completing the two-year term. The Chair can remain as a member when rotated off.

He then reported on iPC meeting held in Austin, Texas in March 2003. The iSSEP's complex drilling procedures are worth praising. An Operation Committee Working Group was formed, which is the last committee to be formed. iPC approved the formation of the committee WG and sent this notion to IWG for approval.

iILP helps the IODP community to gain access to seismic data base, otherwise not possible to have. In the Amsterdam meeting he has attended he acquired the information that riser drilling will take 5 years of preparation. And hence even if IODP shorten it as much as we could, it will take a minimum of three years of planning. Because it takes so long, IODP needs to describe the flow of work, evaluate risks, solve safety issues, and so on. IODP needs to re-evaluate our science because of the riser, which is new to IODP. It will be better making an early decision than late. One can red flag on non-achievable goals early in the decision process. Initial scope groups using the riser vessel already exist in the form of Nankai and Costa Rica proposals, which are general ones. If there are any problems or risks associated with the drillings, they should be identified and discussed for the success of the IODP.

Meeting in June in Austin, Texas, USA initial science group

There are initiatives in getting public involved in the planned Lomonosov Ridge drilling in the Arctic Ocean. That is, to take some tourists and/or students for observation and/or education for advertisement of the project as well as to fulfill the need of funding. Regarding the iPC policy on the Arctic drilling, it is acceptable to take public in as long as they do not interfere with the scientific drilling operation.

3.7. iSSP Report (McIntosh)

Kirk McIntosh presented (1) iSSP Bologna meeting; (2) Data Bank Working Group (DBWG); and (3) MATRIX Working Group.

At the Bologna meeting 9 full proposals and 9 pre-proposals were reviewed. Presentation from the Data Bank Working Group was made and significant discussion followed. The panel formed the MATRIX Working Group together with iSciMP.

The following three items are the major outcome of DBWG:

- Recommendations will help shape the request for proposal for the successor IODP Data Bank;
- Formed from a subset of the iSSP panel and liaisons from iPPSP and iSciMP; and
- Group has met partially, or in full, three times, with the most recent meeting occurring before the iSSP meeting February 2003 in Bologna, Italy.

The iSSP DBWG recommended on (1) digital vs. analog data submissions; (2) allowable data formats; (3) mechanism and timing of communications with IODP panels and proponents; and (4) facilities, hardware, software, and personnel for Data Bank.

The panel recommended that data submitted to the IODP Data Bank (DB) be in a digital form unless this is not possible for the proponent(s) to accomplish. The panel recommended continuing the current policy of early review. DBWG recommended that IODP adopt a GIS-capable, web-accessible, software system. The panel suggested further improvement of the Site Survey data review process during the Bologna meeting (February 2003).

3.8. iSciMP Report (Escartin, iSciMP liaison)

Xavier Escartin presented an iSciMP Report focused on the last meeting that was held in Edmonton, Canada in December 2003. Regarding the Pre-proposal 621, MBARI Observatory, iSSEPs forwarded it (621-pre) to iSciMP and iTAP for comment and input. An ad-hoc Working Group was then established, whose recommendations were reported to iSSEPs chairs and proponents in February. This 621-pre had proposed to drill a shallow hole near MBARI to be used as a test bed for seafloor observatory technology.

The summary of the recommendations is given below:

- Drill a minimum of 2 or 3 holes so that there are available sites for testing while one or more are being used in long-term experiments and therefore not accessible.
- Open access of the sites to the ODP and the larger community, and not limit the site to the seafloor observatory effort
- Use a standard drill pipe size in coordination with iTAP and iSciMP, to allow the test of new ODP tools in the future
- Add a scientific component to the proposal (i.e., 3D permeability problems, high-resolution cross-hole geophysics...)

During the Edmonton meeting a series of recommendations and plans was given as follows:

- Database operator. iSciMP recommends that there is a single database operator for all platforms to insure accessibility of data, standardization of input, storage and retrieval of information collected during IODP operations.
- Database working Group. It is recommended that a database working group be established to insure consistency of data across the program and in time.
- Drill pipe standardization. iSciMP recommends that there is a single standard of drill pipe size (when possible for the MSP). This needs to be done in coordination with iTAP.
- Chiukyu instrumentation list. The list of instrumentation of the new Japanese vessel will be reported to the panel members to be reviewed during next July meeting.
- Microbiology Working Group. A working group has been established to develop and investigate new issues that arise from microbiological studies in ODP samples. In particular, iSciMP encourages efforts to develop sampling techniques that avoid microbial pollution (i.e., JAMSTEC's antimicrobial gel).
- Archival, analysis and disposal of cuttings. iSciMP will interact with other iSAS panels to recommend a policy of archival, analysis and disposal of cutting material.
- Sample data policy. The sample data policy was reviewed and submitted to iPC for approval.

Future agenda items for the July meeting in Rhode Island include:

- Joint iTAP/iSciMP meeting. Some overlap exists between iTAP and iSciMP and a joint

meeting will allow the two panels to interact in specific aspects (i.e., drill standards), and establish a working mode and partition of tasks.

- Scientific staffing. Given the complexity and length of CDPs, a new policy and recommendations regarding staffing will be reviewed, including assignation of scientists, access to samples, etc.
- Scientific measurements in the new program. The presence of multiple platforms and the length of CDPs, makes it necessary to re-evaluate both the list of measurements to be performed, and their evolution in time, so as to insure quality and standardization of data across the program. This requires both a closer link with iSSEPs to identify required technologies/measurements that may be needed in the future based on available proposals, and the follow-up of CDPs in time.

3.9. iTAP Report (Masuda; iTAP liaison)

Yoshihiro Masuda reported the proceedings of iTAP. The second iTAP meeting was held on February 21-22, 2003 in Amsterdam, the Netherlands. This was a joint meeting iTAP–iILP on the morning of the 2nd day. The main discussion points were as follows:

- Platform operations (Chikyu, Non-riser, MSP)
- Standards: Drill pipe diameter, core diameter
- Borehole stability & Temperature
- Technical challenges in Complex Drilling Programs (CDPs) including NanTroSEIZE and CRISP [Costa Rica]
- Project Management System in IODP
- Efficient way to extract technical challenges from proposals
- Short discussion on technical challenges included in ISP such as climate history, gas hydrates, hydrogeology, and zero-age crust

iTAP recommended the followings:

Recommendation 03-01:

Evaluation on Use of 6-5/8" Drill pipe for IODP Drill ship:

- iTAP recommends that the Ocean Drilling Program, through its prime contractor, subcontract an evaluation of the technical, operational, and scientific benefits (e.g. core quality, core volume, tool deployment) and costs of outfitting the JR-replacement to be able to handle up to 6 - 5/8" drill pipe.
- iTAP will provide a recommended work statement to ODP. Proposed work statement on evaluation of use of 6-5/8" drill pipe will be attached to the minutes of iTAP #2.

Standard Pipe Diameters:

- Important for standardizing logging, sampling and specialty tools as an integrated program
- 6 5/8" is commonly used in industry
- More advantages than disadvantages: Potential for larger logging tools, easier fishing, faster wireline trips and less swabbing, higher torques, better hole cleaning due to higher annular velocity, etc.
- Chikyu can handle this size
- Outfit the non-riser vessel to handle 6 5/8", recommending a small study.

Recommendation 03-02:

- iTAP recommends that a hole problem risk mitigation plan be developed for every scheduled program.
- The plan should include near-real time analyses during the drilling program that uses real-time drilling parameters.
- These parameters should also be captured into the IODP data base to be used to improve future drilling plans.

Recommendation 03-03:

- iTAP recommends that the Ocean Drilling Program incorporate an evaluation of the termination of each borehole as part of the ongoing legacy documentation of the ODP.
- iTAP will define the scope of this evaluation so that the information can be used to prepare for the technical challenges in IODP.

Recommendation 03-04:

- iTAP recommends the formation of an IODP Working Group that will develop a

project-based management planning system. The system will be similar to those used by the petroleum exploration industry.

- It will conform to the management structure of IODP and consider the need for efficient passage of proposals from proposed project scientific review to execution and completion of the drilling project.
- This Project Management Working Group would be charged with developing the project management system by June 2003.
- Proposed working group membership: iTAP, iILP, iSCIMP, industry project manager(s), iSSEPs, iPC and/or Science Planning Committee, OPCOM working group representatives.

iTAP Advice to Proponents

- Begin developing a list of specifications (e.g., measurements and coring/sample requirements that need to be made (depth, location, resolution, temperature and dynamic range, measurement life) and collaborate on development of this list.
- Complete iSCIMP's new cover sheet measurement list
- Select sites based on science objectives
- Do not identify the type of drilling vessel or drilling methods
- Provide proposals early to the DPG

Where appropriate, develop technical/operational options based on the science objectives

- Joint with iSCIMP

Finally, the dates for the next iTAP meeting will be for July 14-16, 2003 at Graduate School of Oceanography, University of Rhode Island, USA.

3.10. iILP Report (H. Arato)

Hiroyuki Arato, the iILP liaison, first explained the mandates of iILP.

Mandate 1:

General purpose:

To facilitate ongoing communication and cooperative scientific activities between IODP and selected industries, with the goal of benefiting IODP science and technology and maximizing economic benefits from sharing resources, such as drilling of sites for shared scientific and technical goals, development of joint drilling and sampling technologies, and the development of improved down hole measurement and observatory capabilities. Industrial sectors of interest include oil & gas companies (e.g., offshore deepwater technology, petroleum geology, and engineering), mining (e.g., understanding potential economic targets), microbiology (e.g., development of new enzymes, etc.), insurance industry (e.g., hazards and climate predictions) and research and development organizations in these fields.

Mandate 2:

The iILP will:

1. Develop effective links between academic and industry scientists with mutual research and technical/engineering interests.
2. Identify barriers to industry participation in IODP and recommend solutions for overcoming these barriers.
3. Develop mechanisms for sharing industry data/expertise/resources between IODP and industry scientists and provide advice to IODP scientists where appropriate.
4. Act as the liaison group for IODP to industry and selected industry associations, and promote IODP; educational and outreach activities within selected industry professional organizations.
5. Assist with the identification of scientists and engineers from industry to serve on panels, committees and working groups of IODP as needed. These might include Detailed Planning Groups for complex multiple-platform, multiple-leg drilling programmes and/or interim Programme Planning Groups.
6. Define industrial priority research within the IODP context and facilitate communication and cooperative scientific and technical development activities

Discussion 1: PROMOTIONS

- introduction of IODP to industries:
 - oral presentations in conferences (incl. Local meetings),
 - articles on journals / newsletters, (preparation for presentation materials)
 - chair a session in AAPG, and invite proposals,
- education for IODP proponents:
 - conduct seminars for well operation, wellsite geology,
 - seismic interpretation, or well log analysis, etc.
- education for potential proponents:
 - conduct seminars for students, and young scientists

After all, linking industry with academia.

Discussion 2: SUPPORTS for PROPONENTS

- support proposals of industry interests:
 - reviewed and categorized proposals,
 - examine possibilities of industry collaboration,
- provide a database of meta data:
 - seismic line index maps,
 - well location maps,
 - availabilities of other data ,
- mediation of industry data

Discussion 3: INDUSTRY PARTICIPATION disclosure to IODP proponents

- establishment of contacts with the industry groups:
 - energy, microbiology,
 - mining, insurance,
- mutual promotion:
- support proposals of industry interests:

Current Action Plans

Review proposals submitted to IODP for interest to industry;

- identify data, analyses, etc that could apply
- suggest enhancements and advice for proposals
- meet with proponent(s) when and where requested

Identify areas of interest for joint industry/academic studies and coordination;

- identify topics on list of industry interests
- identify workers in industry and academia that share these interests
- conduct workshops for planning of new proposals
- make new proposals

Promote IODP and its benefits to industry;

- develop advertisement materials
- present to companies, meetings

Liaise between industry and academia on IODP issues;

- make connections where requested
- nominate for committees and panels

3.11. OD21 Report (Y. Yamada and K. Kodama)

Yasuo Yamada explained that a supplementary budget of US\$1M for the building of the "Chikyu" was obtained from the Japanese government and hence the completion date of the ship construction will be in early USFY2007 (October 2006), one year earlier than anticipated. He illustrated graphic scenes from the sea trial first leg of Chikyu (April 22-29, 2003), including the departure of the ship from Tamano Ship building area as well as the interior of ship such as the core and the geochemistry labs. He showed that "Japan National Science Plan" in Japanese version had been published in November 2002 and its English version in January 2003.

Kazuto Kodama reported on the newly built Marine Core Research Center at Kochi University, which is celebrated for its opening at this moment. It consists of a core storage laboratory and a core analysis center with the state of the art analytical equipment. There are four sections in the Center: Core repository, sampling room, office space and

rooms for advanced measurements including mass spectrometry, microbiology, and paleomagnetism.

Furthermore, Yasuo Yamada showed a video tape containing the footages of the signing of the NSF-MEXT Memorandum and the current operation of Chikyu in the Seto Inland Sea.

3.12. CDEX Report (T. Murayama)

Tatsuya Murayama presented the newly established (1 October 2002) Center for Deep Earth Exploration within JAMSTEC (JAMSTEC); Asahiko Taira is the Director General of CDEX. This is a Riser Platform Implementing Organization with the following Services/Tasks:

- Platform Operation
- Science Operation
- Engineering Site Survey

Its missions are to contribute to the accomplishment of the IODP scientific goals, through safe and efficient operation of Chikyu. CDEX acts on:

- Site survey data acquisition;
- Interpretation and evaluation of the site survey data;
- Well planning and preparations;
- Supervising drilling and logging operations; and
- Supervising science services.

He described about the Drilling Hazards:

- (1) Ocean Meteorological conditions
- (2) Shallow Gas
 - Methane Hydrate
 - Shallow Water Flow; Met Ocean
- (3) Geo Pressure
 - Blowout
 - Mud Loss
- (4) Geological Condition
- (5) Drilling Problems
 - Low Frac Grad
 - Stuck pipe

He further illustrated the requirements for typical operations. For example, it will take about a year to drill 5000 m below sea-floor. Riser drilling preparations will take 52 months and thus at least four years must be the starting point before actual drilling. Riser drilling will require stepwise pressure control by setting up number of different size of casing strings.

3.13. iSAS Office Report (N. Eguchi)

Nobu Eguchi reported on statistics of proposal submissions for the last deadline (April 1st, 2003) as well as for those in the past two years. For the last deadline, a total of 26 proposals were submitted including 8 new proposals and 18 revised proposals. As before, slightly more than a half of the proposals concern the Environmental Change theme of the ISP and the others are almost equally distributed between the Deep Biosphere and the Solid Earth themes. A total of 101 proposals have been submitted during the past two years. Approximately the same ratios between the different themes of the ISP have been observed.

3.14. CDP Update (T. Byrne)

Tim Byrne updated the most recent discussions on Complex Drilling Programs. During the Montpellier meeting, iSSEP working Group 1 was formed to discuss about a CDP. The followings are summary of current consensus and recommendations.

Complex Drilling Programs: overview

- Development of CDP Proposals
- Mentoring CDP Proposals within the SAS
- Evaluation of CDP Proposals by SAS
- Assignment of DPGs to CDPs by iPC

- Scheduling of CDP Drilling
- Management of CDP Drilling through Time

Characteristics of a CDP:

- There is one or more, clearly articulated, overarching goal(s)
- The pathway to achieving these goals requires completion of a series of linked scientific and operational components
- All components can be completed in a reasonably short time
- The fundamental goal(s) cannot be achieved through completion of a series of independent drilling projects

Composition of a CDP

1. CDP Preface (umbrella):

- Overview of the entire project with the vision, goals, context of ISP, and general drilling strategy
- Accompanies all following component proposals

2. One or more linked (full) proposals

Dealing with a CDP proposal

- Submitted as a pre-proposal
- SSEPs evaluate appropriateness and readiness for full CDP (preface + component)
- If ready: external review of full CDP

Dealing with a CDP proposal

- If ready: reviewed CDP proposal goes to iPC
- If accepted, iPC forms DPG(s)
- Subsequent components submitted to SSEPs as full proposals, which, with the CDP Preface, are sent for external review.

4. Introduction to reviewing processes: Gilbert Camoin

Before starting with the reviewing processes, Gilbert Camoin presented the 4 recommendations made by the iSSEPs co-chairs at the last iPC meeting. During that meeting it was proposed by the iSSEPs co-chairs to organize an electronic meeting in August to review the external reviews and the related PRLs for the proposals sent out for external review after the Niigata meeting. The four recommendations were the following:

1. The iSSEPs should decide when a proposal is ready to be forwarded to the iPC.

2. The iSSEPs may hold one additional meeting this year in early August.

This meeting should be conducted electronically and focus on new external reviews and related response letters from proponents. The iSAS Office should confirm in advance the external reviewers for all proposals that could potentially be sent out for external review following the May 2003 iSSEPs meeting.

iPC also approved the following:

3. The iPC gives its approval for the iSSEPs and their iSAS service panel liaisons to identify proposals that could benefit from advice by particular service panels. The iSSEPs co-chairs must request the iSAS Office to seek permission from the proponents to distribute such proposals to the appropriate service panel for comment.

He also reviewed the conflict of interest rules and confidentiality requirements prior to the start of proposal reviews (see attached Table 1). Proponents are excluded from being in the room during proposal discussion, as are those having active projects closely related to the projects proposed. iSSEP members at the same institutions as a proponent must identify themselves to the iSSEP chairs prior to review discussions.

5. Working Group meetings.

The objectives of these working group meetings was to start discussions and exchanges on the proposals that are related to the same scientific theme, so that everyone will feel comfortable during the plenary sessions when the proposals will be reviewed. We expected that these working group meetings could improve the presentation of the

proposals and the impact of discussions on each proposal. The following four groups were met. Proponents were asked to leave the room when his/her proposals were discussed, applying usual conflict of interest rules.

- WG1: Fluid flow/Deep biosphere : 505, 545, 547, 553, 629 and 633
iISSEP members: Ashi, Henry, Rosenberg, Ruppel
iESSEP members: Ge, Smith, Yamamoto, Takahashi
Other: Takai
- WG2: Seismogenic zones : 537 and 603
iISSEP members: Bangs, Chen, Tokunaga, Byrne
iESSEP members: Hill, Ohkouchi
- WG3: Paleoceanography and paleoclimatology : 477, 549, 602, 626, 630, 514, 627, 595 and 618
iISSEP members: Kominz, Yamazaki
iESSEP members: Ravelo, Weissert, Wilson, Camoin
- WG4: Solid Earth/geodynamics and Climate tectonic links: 512, 631, 632, 595, 618, 612, and 628
iISSEP members: Devey, Fujibayashi, Pedersen, Mikada
iESSEP members: Brumsack, Filipelli, Kodama, Soh
Other: Tatsumi

Friday May 23 8:30-19:00

6. Joint session for iESSEP and iISSEP: Proposal Reviews.

During the review meetings the panels considered the following proposals:
505-Add3, 545-Full3, 547-Full4, 553-Full2, 629-Full and 633-Pre, 537-CDP2, 537A-Full2, 603-CDP2, 603A-Full2, 603B-Full, 477-Full3, 549-Full4, 602-Full, 626-Full, 630-Pre, 514-Full4, 627-Pre, 618-Full, 512-Full3, 512-Add2, 631-Pre, 632-Pre, 595-Add, 612-Full, and 628-Pre.

The conflict of interest rules and confidentiality requirements have been respected during the whole review procedure (see Attachment Table 1).

7. ICDP Report (Harms)

Ulrich Harms explained the proposal review process by ICDP. In each fall proposals are submitted to ICDP Management, an iSAS equivalent and reviewed and ranked by Science Advisory Group, which is an equivalent of iSSEP. The ranked proposals are forwarded to Executive Committee, an equivalent of iPC, for authorization along with approval by Assembly of Governors. Then drilling operations are started.

There are five major categories of ICDP operations: paleoclimate, impact events, earthquakes, volcanoes, and continental dynamics. He then showed current and future drilling programs.

7.1. Unzen Drilling Project is taking place on an active volcano located in southern Japan and the objectives of the drilling are as follows. Two drill holes with casings and estimated maximum temperatures of 550-600°C are located on the northern flank of the volcano:

- Eruption mechanism
- Conduit Formation
- Degassing
- Cooling
- Structure & Evolution
- Drilling Technology

- 7.2. Hawaii Scientific Drilling Project is continuing on Mauna Kea. The upcoming schedule for the operation was presented.
- 7.3. Dabie Sulu Project attempt to drill more than 5 km of rocks including metamorphic rocks. Thus far 2900 m of drilling has been achieved. It involves with a new 5.5 km ICDP wireline drill string and power swivel; that is the integration of GFZ power swivel into Chinese drill rig.
- 7.4. Lake Malawi Drilling Project is to drill high-resolution paleoclimatic records and decipher human evolution in the South East Africa. The project has the following key questions and objectives:
- Obtain a continuous, high-resolution (annual-decadal) record of past climates in tropics over 800 kyr
 - Paleoclimate studies on unique sensitive lacustrine basin.
 - Basin evolution studies in large closed basin.
 - Evolut. biology in a system of unparalleled endemic biodiversity.
 - Issues of Human origin in area of earliest human ancestors.
- 7.5. Lake Bosumtwi Drilling Project aims at drilling of 360 m lacustrine sediment of the 1.07 Ma impact which left a lake of 10.5 km diameter and 80 m deep in Ghana in the West Africa.
- 7.7. Impact workshops are planned for the coming September 2003:
- Deep Drilling in the Central Crater of the Chesapeake Bay Impact Structure, Virginia, USA.
 - Anatomy of an Impact Basin- Scientific Drilling of the Sudbury Structure, Ontario, Canada.
 - Marine Impact Processes: Drilling the Mjolnir Crater in the Barents Sea, Oslo, Norway
- 7.8. Fault Zones and Seismogenesis: Chelungpu Fault Drilling in Taiwan is planned and the specifics of the studies were presented.

Saturday May 24 8:30-17:30

8. Joint session for iESSEP and iSSEP: Proposal Reviews.

Sunday May 25 8:30-12:30

9. Joint session for iESSEP and iSSEP:

9-1. Grouping of two proposals (512Full3, 545Full3).

The grouping procedure was organized during a joint session and the panel members were invited to vote for all proposals.

The panel members were invited to group the relevant proposals in two categories:

- I: Highest priority for iSSEPs regarding the scientific objectives of the Initial Science Plan ;
- II: Important for iSSEPs regarding the scientific objectives of the Initial Science Plan.

9-2. The dispositions of all proposals considered have been summarized in Attachment Table 2. The panels will write a single joint review for each of the proposals of joint interest. The reviews will be edited and passed around to all panel members before being forwarded to the iSAS office for transmission to proponents.

9-3. Gilbert Camoin explained the forthcoming electronic meeting to be organized in August 2003. The iSSEPs electronic meeting will be held during the two weeks starting on 25 August 2003 by this date the anticipated external reviews will be available.

9-4. Guidelines for submitting IODP proposal to SAS

The following specifics are implemented in the Guidelines for submitting IODP proposal to SAS: The maximum length of full proposals: 25 pages, references are excluded from the 25 p limit; Pre-proposals: 10 pages maximum, references are excluded

from the 10 p limit. In the past, color figures have been discouraged, but SAS will no longer enforce this and thus color figures are acceptable. Concerning the style of references, we recommend that proponents should write author names in the text and they should include titles in the reference list and thus avoiding the unpopular Nature style. Two pages of CV will be allocated for the lead proponents and one page each for all of the rest of the proponents. The latter inclusion of all proponents will ensure that lead proponents have in fact consulted the other proponents and thus prevents from unauthorized listing of proponent names. Line spacing of 1.5 space for text should be better specifies such as 32 lines maximum. This is because that 1.5 spacing in some word processing programs (e.g., Word 98 Japanese version which can handle English) would tell 20-30% less line numbers than the western ones due to spacing governed by the main language ruler.

9-5. SSEP structures

Kozo Takahashi expressed his and other Japanese members' deep concern about the efficiency of the panel structures and ways of evaluating proposals. The current format of a total of 32 members of iSSEP and iESSEP meeting size is significantly larger than he felt was desirable because there are cultural differences between Japan and the western societies and some people feel intimidated in speaking up, especially for initial and earlier meetings for individual participations rather than the seasoned ones.

It is necessary to overcome the cultural differences among the different nations and all IODP partners must be able to work together closely. Specifically, mutual understanding and communications must be made.

However, he felt that the current system is rather difficult in promoting some panel members' opinions and ideas. One of his suggestions to remedy this would be to reduce the size of meeting group and he suggested about 15 members as a possible candidate, although he also expressed his concern in inability in covering adequate expertise with such a size. He also stated that current proposal reviews in oral discussions are fairly complete and rigorous.

Gabe Filipelli commented that the problem of non-English native panel members has been well recognized by English-native members but could not find a solution. Also he has pointed out the necessity to discuss this issue as a panel.

Hans Brumsack commented that European members had a kind of culture shock when they started participating as members in the ODP/SAS system and that they gradually adapted to the system. He suggested as for the solution that every panel members should pay attention to non-English panel members, try to speak slowly to them, and try to listen to them

Hitoshi Mikada stated the followings. We should think about long and short-term solutions on this problem. The long one is the improvement of the Japanese education system and the short term one is to involve as many Japanese people as possible to the discussions in the iSSEPs. After 4 meetings, we feel the situation is getting improved and this improvement might continue just as many Europeans have applied themselves to the current ODP system. Kazuto Kodama stated that it has been well accepted that the small-sized working group discussions prior to the large sized ~30 people discussions worked out reasonably well. However, the time allocated was too short for satisfaction. And the large sized people's discussion appeared to be one sided.

Shemin Ge expressed the difficulty of non-English native members to jump in discussions and suggested the inclusion of possible future panel non-English native members in the panel meetings as observers.

Concerning this point, Rolf Pederson from Norway expressed his opinion as a non-English speaking point of view. That is, all panel members including non-English speaking representatives are expected to participate in oral debates equally, which cannot be easily done even though they try very hard just because of their handicap as non-English speakers. The speed and the way the meetings are handled cannot simultaneously easily be digested for non-English speaking people. He expressed that the review writing is very hard for non-English speakers and you cannot expect them to be able to complete in a few hours. He also shared his experience on the drilling ship where he was a co-chief scientist. When a cruise

begins everyone is equal but gradually a hierarchy is generated. The top of such a hierarchy is lead by English speaking leaders and the bottom of the hierarchy is normally held by Japanese and other non-English speaking people such as Chinese people. Thus, it is desirable to fill the moat we currently have in order to have an equal participation from everyone.

David Smith mentioned his gratitude that this issue has been brought up this time and such an issue has never been brought up in iSciMP and thus he will try to bring it up in the panel. Kirk McIntosh also expressed his gratitude and the necessity to discuss this issue in iSSP.

Finally, Nao Ohkouchi suggested an opinion that 15 members as a new panel size and external reviews to cover adequate expertise in proposal handing, as a radical way to improve the inadequacy that we face.

Some panel members commented to Ohkouchi's opinion in terms of the difficulties of conducting external reviews. Gilbert Camoin suggested as one of the directions of the discussions as follows: (1) the iSSEPs panel co-chairs will pay attention to non-English members to express their opinions, (2) the co-chairs perceived the value of working group meetings of smaller scale before the review meeting as a whole.

Kozo Takahashi also brought up the conflict of interest issue. Because that Japan is such a country that substantial part of ocean sciences are dealt by JAMSTEC or ORI, most ODP proposals have proponents from these institutions and thus the conflict of interest issue will eliminate many JAMSTEC or ORI panel members in proposal reviews and thus it does not help. Gabriel Filippelli asked if, in the case that a proposal by a superior was negatively reviewed by iSSEPs in the presence of a junior lab member this might cause trouble with the superior in a tightly clustered Japanese society. Kozo Takahashi noted that it may well be the case, but it depends on the situation. Gilbert Camoin stated that the current rule does not say that the panel members from the same department of the same institute must declare co-chairs that he or she is from the same department, but it does not say beyond that. Hitoshi Mikada mentioned that the role of iSSEPs is to improve the quality of proposals and not to be rigorous about the conflict of interest issue, which should be one of the discussion items in SPC, SPPOC, etc. Tim Byrne told that the co-chairs have noticed some Japanese people were pretty nervous about the conflict of interest and summarized that the panel member should not feel the issue so deeply in iSSEPs unless they are included as one of proponents of proposals under review. Kozo Takahashi stated that most of us have not been encouraging them to participate in discussions on the conflict of interest cases thus far, but that in the future we should encourage people more in this attitude.

9-6. Discussion on CDP guide

A vision statement part of a CDP proposal should be 15 pages maximum in length. One to three pages each components should also take part in the proposal. The maximum length of a CDP proposal should be 25 pages.

9-7. Announcement on the coming SSEPs Meetings

Regarding the next SSEP meeting, Shemin Ge offered that the next meeting can be held in Boulder, Colorado. Two possible dates were given: 13-16 November or 20-23 November. The spring of 2004 meeting may be held in Europe somewhere.

The co-chairs thanked the iSAS Office and host Norie Fujibayashi for the excellent arrangements for the meeting.

9-8. Adjournment of the meeting and writing of proposal reviews in the afternoon.

List of Participants:

iISSEP

Juichiro Ashi
Nathan Bangs (Alternate to Donna Blackman)
Tim Byrne (co-Chair)
Colin Devey
Norie Fujibayashi (Host)
Michelle Kominz
Hitoshi Mikada (co-Chair)
Rolf Pedersen
Nina Rosenberg
Tomo Tokunaga
Toshi Yamazaki (Alternate to M. Yamano)

iESSEP

Gilbert Camoin (co-Chair)
Gabriel Filippelli
Shemin Ge (New member)
Phil Hill (New member)
Kazuto Kodama
Nao Ohkouchi
Christina Ravelo
David Smith (Alternate to Katrina Edwards)
Wonn Soh
Kozo Takahashi (co-Chair)
Helmut Weissert
Paul Wilson
Hiroyuki Yamamoto

iSAS Representatives

Minoru Yamakawa, iSAS Office
Nobu Eguchi, iSAS Office

Liaisons and Guests

Ken Aoike, CDEX observer
Hiroyuki Arato, iILP liaison
Millard F. Coffin, ORI observer
Javier Escartin, iSciMP liaison
Ulrich Harms, ICDP liaison
Jimmy Kinoshita, iPC liaison
Yoshihiro Masuda, iTAP
Tadao Matsuzaki, OD21 observer
Kirk McIntosh, iSSP liaison
Osamu Miyaki, MEXT
Ted Moore, iPC liaison
Tatsuya Murayama, CDEX observer
Kyoko Okino, iSSP liaison
Kiyoshi Suyehiro, iPC member, IMI secretary
Ken Takai, iSciMP liaison
Yoshi Tatsumi, iPC liaison, J-DESC
Yasuo Yamada, OD21 observer

Meeting Logistics

Toru Nishikawa, AESTO
Yu Shinmyo, AESTO
Mariko Tanaka, AESTO
