

IODP Scientific Measurements Panel (SciMP)

Third meeting, 8-10 February 2005

Royal Kona Resort Hotel

Kona, Hawaii

FINAL MINUTES



**SciMP meeting attendees visit the Hawaii Scientific Drilling Project
in Hilo, Hawaii, 11 February 2005**

Attendees:

Name	Affiliation
Basile, Christophe	SciMP
Kasahara, Junzo	SciMP
Korja, Annakaisa	SciMP
Lovell, Mike (co-chair)	SciMP
Lyons, Timothy	SciMP
Mandernack, Kevin	SciMP
Nanba, Kenji	SciMP
Neal, Clive	SciMP
Okada, Makoto (co-chair)	SciMP
Sakamoto, Tatsuhiko	SciMP
Screaton, Elizabeth	SciMP
Suzuki, Noritoshi	SciMP
Wheat, Geoff	SciMP
Wilkens, Roy	SciMP
Yamamoto, Masanobu	SciMP
Naruse, Hajime	SciMP (alternate)**
Blum, Peter	JOI Alliance
Duncan, Bob	SPC
Filippelli, Gabe	USSAC
Higgins, Sean	JOI Alliance
Kryc, Kelly	JOI Alliance
Kuramoto, Shinichi	CDEX
Röhl, Ursula	ESO
Schuffert, Jeff	IODP-MI
Apologies for Absence	
Ahagon, Naokazu	SciMP**
Gulick, Sean	SciMP
Villinger, Heinrich	SciMP

Executive Summary

SciMP Recommendations, Consensus Statements, and Action Items

The IODP Scientific Measurements Panel (SciMP) held its third meeting on 8-10 February 2005, in Kona, Hawaii, with panel member Roy Wilkens serving as host. A follow on visit to the Hawaii Scientific Drilling Project in Hilo, Hawaii took place on 11 February. The SciMP meeting resulted in the following ten recommendations, seven consensus statements, and thirteen action items. These are forwarded to the SPC for appropriate distribution to the IODP-MI or the SPPOC.

As recommended by the IODP-MI Sapporo office, we are following a numbering scheme of year-month-number (i.e., for this meeting, 0502-xx) for the recommendations, consensus statements, and action items. Brief overviews are provided where appropriate *in italics* with each recommendation and consensus statement.

Recommendations

SciMP Recommendation 0502-01: IODP should establish an observatory working group within SciMP/STP consisting of IODP SAS panel members (e.g. SciMP/STP and EDP). Outside parties will be included or consulted on a project-by-project basis as the need arises. This working group includes external members from the start and should exist until the end of 2006 in the first instance to cover the moratorium period resulting from the drilling of the IODP Monterey Bay Observatory boreholes.

Recommendation (i): The observatory working group will:

- a) Develop criteria for submission and evaluation of technical proposals for deploying, testing and retrieving instruments in IODP boreholes.
- b) Explore use of third-party tool policy as a model for observatory approval and implementation.
- c) Establish guidelines for observatory scheduling, including the period of deployment and prioritization of projects when competing requests exist.
- d) Establish guidelines for maintaining the integrity of boreholes before, during and after instrument deployment to ensure suitability for subsequent observatories.

Recommendation (ii): The observatory working group should use Monterey Boreholes as a test-bed for developing and refining protocols for the use of IODP boreholes as observatories. This effort will include a joint task force consisting of representatives from IODP, MBARI/MARS and ORION, with a commitment to international representation.

Recommendation (iii): The observatory working group should develop a policy for data management, including the rules and mechanisms for data dissemination. The policy should also address (a) long-term data storage, accessibility and compatibility of data and metadata and (b) establishment of an archive that tracks the specific instruments used and other experimental protocols employed at each observatory.

Recent interest in the MARS-IODP collaboration suggests that borehole observatories will become an increasingly important complement to ocean drilling. This recommendation is in response to SPC Consensus 0410-28 and is linked to SciMP Action Item 0502-09 detailed below.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

SciMP Recommendation 0502-02: In response to SPC Consensus 0410-29, SciMP recommends the following protocols regarding the dissemination of scientific results during expeditions and moratorium periods:

- Where shore-based scientists form part of an Expedition Scientific Party, operators should provide daily progress reports to all shore-based expedition scientists.
- The full expedition scientific party must be recognized in press releases made during the expedition and scientists must be given the opportunity to review press releases. Press releases made during the expedition should be through IODP-MI.
- Co-chiefs are required to summarize the input to press releases from all participating scientists and present the revised version within a reasonable time frame. All critical scientific information pertaining to the expedition should only be conveyed to the press from the co-chiefs. However, this may be a problem because there will be cases where press releases would be made in languages that the co-chiefs are unfamiliar with. Therefore, the co-chiefs should prepare summaries that contain information that the science party can use for dissemination to the press in any language.
- The co-chiefs and IODP-MI should be notified of any press release made by any member of the science party during the post expedition moratorium period, as it may be difficult to solicit input from the entire science party for every press release.
- During the expedition and moratorium all public dissemination of results must credit IODP specifically. Scientific communications must be co-authored by the full ship and shore based expedition parties (except where they have chosen to opt out). The science party must be given the opportunity to review all papers and abstracts submitted during this time.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

SciMP Recommendation 0502-03: SciMP recommends that all IOs investigate a means for real-time transmission of data to/from downhole tools as part of the platform's complement (i.e., not "logging contractor"). Coupled to this recommendation is the modernizing of downhole tools to take advantage of this capability.

The May 2004 downhole tool workshop made several recommendations, including "Rapidly deployable, live, weight-bearing, umbilical" to provide two-way communication with downhole tools. Two-way communication would yield real-time feedback to the ship, where decisions could be made to save valuable operational time. For example, continuous monitoring of pressure and temperature tools would reduce time should fast equilibrations occur and would signal tool recovery on failed deployments. There is a wide range of potential uses for two-way communications from obtaining drilling parameters to conducting packer/hydrofracture tests. We recognize that each IO is best suited to identify the most appropriate means to implement two-way communication with downhole tools and this is reflected in the recommendation. This recommendation is timely with respect to the publication of the US SODV Briefing Book.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

SciMP Recommendation 0502-04: In light of actions given to the paleontology specialist on SciMP, SciMP recommends the continuation of the paleontology working group. The working group should include the SciMP paleontology specialist, at least one Micropaleontological Reference Center curator, and other invited experts on an as needed basis. The working group would meet electronically and, if required, representatives will

meet with SciMP/STP. This working group includes external members and should exist until the SciMP meeting at the end of 2006 in the first instance.

Paleontologic identifications provide the primary source of shipboard and shore-based age determinations and therefore, the foundation of a broad array of the earth history studies that follow nearly every drilling cruise. Two problems were identified by the ad hoc paleontology working group regarding the ability to effectively and accurately establish consistent shipboard and shorebased biostratigraphies. The first problem deals with the declining number of specialists who are training the next generation of micropaleontologists and biostratigraphers. The second problems pertain to inconsistencies that accumulate over time in the nomenclature, application and interpretation of biostratigraphic data. If the paleontology working group is established for these purposes, the most current and accurate, paleontologic data will be available for use by other scientific communities.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

SciMP Recommendation 0502-05: SciMP recommends that the MRCs be continued in IODP.

The MRC collections and curators represent an important resource to IODP for the production of micropaleontologic training and public education materials, for maintaining quality control of paleontologic and biostratigraphic data within IODP, as a liaison to the broader micropaleontologic community, and for insuring an archival legacy of IODP micropaleontologic recovery. MRCs should continue in IODP with full access to samples, data, print or electronic sets of IR-type "Expedition Report" and Expedition Science Summaries. A previous recommendation received by SPC suggested renaming MRCs as IMRCs. Since MRCs currently exist outside IODP this is not an issue for SciMP or SPC.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

SciMP Recommendation 0502-06: SciMP recognizes that separate gases (N₂; CO₂-H₂ mix) and glove boxes will be available on all platforms, where necessary, as they will be required for microbiology and pore water analyses and sample preparation. SciMP recommends that the microbiological glove box should be compatible with use of UV radiation as a sterilization agent.

The emerging field of geomicrobiology requires special sample handling facilities such that the cores are not contaminated in the platform-based sample-handling facilities. UV radiation is a quick and convenient way of sterilizing a work area. However, from SciMP's tour of the Chikyu in December 2003, it was noted that the soft plastic glove boxes installed therein are NOT compatible with sterilization by UV radiation (UV radiation degrades the soft plastic). Thus, establishment of sterile sample handling conditions will be difficult on the Chikyu. With this recommendation, SciMP seeks to have this issue addressed across all platforms.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

SciMP Recommendation 0502-07: SciMP recommends that cathodoluminescence capabilities be made available as part of the microscopy capabilities on both the riser and non-riser platforms.

This type of apparatus should work as rolling of the ship should not cause major problems beyond that of normal optical microscopy. It will add a significant new dimension to platform-based analyses such that, for example, mineral zonation and various generations of cements can be identified. This can then guide other platform-based or shore-based investigations.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

SciMP Recommendation 0502-08: SciMP recommends the inclusion of microwave digestion capabilities on both the riser and non-riser platforms to facilitate complete dissolution of rocks and sediments, as well as increased sample throughput, for bulk sample geochemical measurements.

From CEM Corporation: The microwave should be fine on a ship; the new "MARSXpress" can digest up to 40 samples at once and can reduce sample dissolution time by a factor of 3-5. This is important for ICP-MS analyses as the flux-fusion method of sample preparation may dilute some elements below detection (e.g., the analysis of mid-ocean ridge basalts). A MARS-type unit has the turntable right on the floor so it would be unlikely to get knocked off. This unit requires direct venting, but can sit on a bench next to a HF fume hood with its own venting pipe plumbed into that of the fume hood.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

SciMP Recommendation 0502-09: In response to community input from ODP experience, SciMP recommends that all IODP technical staff should have improved experience and training, such that the technical staff are skilled enough to understand how to judge data quality and the problems associated with obtaining data that are of the highest quality. IODP technical staff should undergo appropriate training such that they are competent in areas such as maintenance, trouble-shooting, software, and deviation from prescribed procedures should a given situation require it. SciMP anticipates that the Review Task Force will be able to provide feedback to SciMP on the success of this recommendation, to effectively close the loop.

This is a revision of Recommendations 9-11 of the chemistry working group report submitted from the SciMP Boston meeting to SPC (Corvallis). By this recommendation, SciMP reflects the community input, obtained from our questionnaire sent out to the ODP community, that emphasized technician training and ability is a critical part of obtaining the highest quality data, not only in sample preparation and analysis, but also in maintaining and trouble-shooting problems with individual pieces of platform-based machinery. It is essential that technicians understand the various sample preparation techniques and are able to adequately judge data quality, possibly through appropriate training in an IODP-related research laboratory (e.g., Kochi, Bremen, TAMU, or appropriate university).

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

SciMP Recommendation 0502-10: SciMP recommends that facilities for accurate weighing on a moving ship be made available on the riser and non-riser platforms. Such facilities will greatly increase the quality of geochemical data generated on these platforms, enhancing their usability in scientific publications.

This recommendation is a revision of Recommendation 8 of the chemistry working group report submitted from the SciMP Boston meeting to SPC (Corvallis). By this recommendation, SciMP notes that accurate weighing of the samples and any added reagents is essential for accurate and precise data. As has been seen on the JOIDES Resolution, this is difficult on a

moving ship, and introduced significant errors into the analyses both directly (through weighing errors) and indirectly (through conducting sample preparations by volume measurements rather than weight). We recommend that a balance be isolated (using gimbals or a gyroscope system) for such accurate weighing.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

Consensus Statements

SciMP Consensus 0502-01: SciMP concludes that environmental scanning electron microscopy not be included as part of the on-board analytical capabilities for the riser and non-riser platforms, as it is unlikely that the stability required for the optimal operation of this equipment will be met.

SciMP Consensus 0502-02: In investigating the potential problem of an oscillating (moving) plasma when using a quadrupole ICP-MS on a moving platform, SciMP was assured by various vendors that this would not be a problem as the plasma is a supersonic jet and will not be deviated by a moving platform. SciMP notes, however, that no actual testing of this has been conducted. We note that CDEX has installed an ICP-MS on the *Chikyu*, which will be tested within the next year. (In a separate action item SciMP ask that CDEX report to SciMP on the results of this testing.)

SciMP Consensus 0502-03: SciMP concludes that gas source stable isotope mass spectrometry not be included as part of the on-board analytical capabilities for the riser and non-riser platforms, as this capability will require intensive technical support and laboratory space, and sample through-put would preclude this capability from influencing drilling strategy.

SciMP Consensus 0502-04: SciMP accepts the overall proposed measurements plan for the Tahiti expedition but brings the following points to the attention of the IO (ESO):

1. To preserve the microbiology of the sample, should mud be cored in Tahiti, SciMP advises that work must, rather than should, be conducted inside a glove bag under nitrogen. Provision should be made for squeezing mud.
2. Due to the highly porous and heterogeneous nature of the material likely to be encountered, physical properties measurements on discrete samples and core logging of many parameters may not yield good quality data. The co-chief scientists and IO should have a contingency plan in place for how best to handle discrete sample measurements and core-logging in the event the cores self-drain in a non-uniform manner
3. Downhole temperature logging should be considered as it may provide useful insight into hydrogeologically active zones.

SciMP Consensus 0502-05: With respect to the Tahiti expedition, the ESO proposes using core diameters larger than the minimum in ODP. SciMP accepts that core diameters of a different size to those used routinely in ODP may be taken on condition the size does not detrimentally impact the science, or create curation difficulties either for the shore-based party or for repository storage.

Background: The standard ODP core liner inside diameter is 66.5 mm, and the standard ODP core sizes that go into that liner are: APC - 2.44" or 62-mm diameter; XCB - 2.312" or 59-mm diameter; RCB - 2.312" or 59mm diameter. SciMP recognizes that using core diameters

significantly smaller than normal could severely impact the science but that using larger core diameters will not detract from efforts to achieve scientific objectives. Furthermore, the impact on total core storage volume is such that unless special circumstances prevail core should be limited to 79 mm. If larger cores are required, then ESO envisages core diameters up to 100 mm diameter can be accommodated relatively easily during the expedition (including both offshore and onshore science parties); cores up to 100 mm can be accommodated at all three repositories. ESO envisage such cores can be accommodated relatively easy by all current core logging/scanning systems.

SciMP Consensus 0502-06: SciMP congratulates the IOs in working effectively together to develop the IODP Imaging Report to the Scientific Measurements Panel in respect of Action Item 04-06-24: (SciMP supports the creation of an archive that contains images of the highest quality possible. To this end, SciMP supports and encourages continued communication between the different IOs regarding the quality of archival images, and asks that they report on progress at the next SciMP meeting). Furthermore, SciMP acknowledges the role of IODP-MI in organizing and leading the IODP Data Management Coordination Group that produced this imaging report. SciMP wishes to stress the important significance of this first collaborative report from the IOs to SciMP. SciMP receives the report and will review this in preparation for the next SciMP meeting (as detailed in Action Item 0502-15).

SciMP Consensus 0502-07: In a rare moment of unqualified consensus, the SciMP expresses its deep gratitude to Roy Wilkens for his many efforts in hosting the February 2005 panel meeting in Kona. In exchange for places full of snow, you brought us to where the trade winds blow and the molten lavas flow. Long hours in hard chairs were softened by the sounds of waves crashing and the scents of flowers wafting. By procuring a meeting room that was mercifully wireless-less, you protected our friends, loved ones, and colleagues back home from our temptations to gloat about the sun and surf in a steady stream of cruel email. For this, they too are grateful. And even sediment geochemists and micropaleontologists are unwavering in their appreciation of these basaltic surroundings. Roy, you have our many thanks for selecting a wonderful venue, for your work in guaranteeing the meeting's success, and for sharing the Hawaii Scientific Drilling Project. And if all that was not enough, you somehow convinced Kilauea that it was time once again for a spectacular show. With sincere appreciation, from all the participants of the third meeting of the IODP Scientific Measurements Panel, Mahalo!

Action Items

SciMP Action Item 0502-01: SciMP will ensure that contact persons from each IO and members from SciMP be specified for ongoing and iterative communication on joint action items from the various SciMP working groups.

Action to be taken by: All SciMP members and IO nominees as appropriate.

SciMP Action Item 0502-02: Two reports are required from the *ad hoc* paleontology working group.

1. For evaluation of funding issues and of potential for MRCs (possibly as IMRCs) by SciMP/STP, the *ad hoc* paleontology working group under SciMP should report a realistic proposal with minimum estimation of funding to achieve the proposed recommendations in the report from the paleontology working group in Washington, D.C.

(e.g., taxonomic dictionaries with stratigraphic databases, post-cruise data capture, completing the IMRC slides, etc.).

2. The statistics on actual activity as well as association structures of MRCs (i.e. how many MRCs, annual costs in the past, the sum of archiving collections so far, funding agencies in the past, etc.) should be summarized for the next SciMP/STP meeting in Bremen, in order to provide background information for SciMP/STP and SPC members.

These actions follow from SciMP Recommendation 0406-05 and SPC Consensus 0410-16 and address queries made.

Action to be taken by: Suzuki

SciMP Action Item 0502-03: A core-log-seismic integration (CLSI) working group will continue to develop a report on fundamental points of depth correction methods of construction of composite depth section and mcd (meters of composite depth) for the recovered cores, core - log integration, and log-seismic integration. The ultimate goal is to provide protocols for CLSI across different environments. In order to complete this task, the CLSI working group will explore the possibility of holding a workshop to discuss various aspects and fundamental points of CLSI methods with scientists, data managers and programmers (including IOs) who have varied experience of CLSI, and report back at the next SciMP/STP meeting. CDEX/JAMSTEC and J-DESC would play host to the possible workshop.

Action to be taken by: CLSI working group (Sakamoto, Gulick, Blum, Kuroki, Takahashi, Kasahara, Higgins, Delius) with Kuramoto

SciMP Action Item 0502-04: A SciMP working group to coordinate with IOs on development of a draft general policy statement on third-party tools and instruments (laboratory, downhole, and observatory), both developmental and off-the-shelf prior to the March SPC meeting (deadline for draft report to SciMP co-chairs 7 March). A follow-on draft policy will be developed by 16 May for forwarding to for SPPOC for mid-June meeting.

Action to be taken by: Wilkens, Villinger, Gulick, Kasahara, IOs – Meyers, Kuramoto, Brewer, IODP-MI - Schuffert

SciMP Action Item 0502-05: The SciMP should continue to develop a draft checklist of scientific measurements for use by the SSEPs in evaluating proposals. The draft checklist should be presented at the March SPC meeting and discussed with SSEPs.

Action to be taken by: Okada

SciMP Action Item 0502-06: SciMP will revise core-description working group report to include new core imaging techniques and to reflect the Conceptual Design Committee (CDC) report and SODV briefing book for the IODP non-riser drilling vessel, (see SPC Consensus 0410-22).

Action to be taken by: Core description working group (Sakamoto, Basile, Kryc, Okada, Neal).

SciMP Action Item 0502-07: SciMP petrophysics working group and IOs identify current status of downhole temperature and pressure tools, plans for calibration, software updates, database needs, and the minimum level of data processing and necessary skill level for the processing across all drilling platforms.

Action to be taken by: Screaton, Villinger, Wheat, Blum, Delius, Kuroki.

SciMP Action Item 0502-08: The geochemistry and microbiology working group will explore the feasibility of establishing more reliable reference calibration standards for quantifying total and viable bacterial cell counts of sediment and rock samples that should be routinely made on board the ship. These standards could also serve for intercalibration of microbiological cell counts made on different drilling platforms. Proposed reference standards might include analyses of bacterial DNA and phospholipids within the samples. For example, standard analysis of DNA concentrations can be measured in the samples more reliably and reproducibly than total cell counts. As a trial experiment, total DNA concentrations could then be directly correlated with total cell counts. This approach would require DNA analysis of a few replicate samples taken at various depths from the core and from which total cell counts were also made.

Action to be taken by: Mandernack, Nanba, Yamamoto, Lyons

SciMP Action Item 0502-09: Because of the impending installation of the Monterey Boreholes, SciMP/STP will develop a draft document that addresses the charge for the Observatory Working Group. This draft report will be ready by March 7.

Action to be taken by: Wheat, Screaton, Villinger, Kasahara

SciMP Action Item 0502-10: SciMP will continue to work with the IOs to investigate the modular lab concept for MSP operations and will build upon the framework discussed and presented at the February 2005 meeting in Kona. This framework to be used is that the modular lab for MSPs needs to be developed to make on-site measurements in the following priority:

- 1) Ephemeral properties (including safety) and/or preservation techniques of samples so that these properties can be measured on-shore. These include, but are not limited to pore-water chemistry, total and viable cell counts, freezing of samples for onshore DNA and/or phospholipid measurements.
- 2) The analysis related to the drilling strategy must be done in the modular lab.
- 3) Measurements that will characterize the core.

The data taken in the modular lab should be of equal quality to those in other platforms.

Action to be taken by: GMWG (Neal) and IOs (Roehl).

SciMP Action Item 0502-11: SciMP recognizes the need for QA/QC protocols to be implemented for all scientific measurements to be made by IODP. In consultation with the IOs, each SciMP working group explicitly prepares a draft list of the existing or planned apparatus, their QA/QC and calibration procedures and reference materials used in their specialty areas. Each working group will evaluate the QA/QC protocols and make recommendations for their implementation that will:

- 1) be uniform across the different platforms;
- 2) be routinely used;
- 3) be sufficiently flexible to meet specific expedition scientific goals while maintaining the

high quality of the data produced;

4) Allow easy comparison of similar data recorded by different platforms.

Each working group will report their findings at the next SciMP meeting.

Action to be taken by: SciMP (Neal, Korja, Suzuki, Villinger, Nanba) and IOs (Blum, Roehl, Kuramoto).

SciMP Action Item 0502-12: SciMP geochemistry and microbiology working group will investigate the feasibility of making a laser ablation facility (with radiation of 213 nm or less) available on the riser and non-riser platforms for interfacing with an ICP-MS. Specific issues will include but not be limited to sample throughput, QA/QC, versatility, and ability to influence drilling strategy during an expedition.

Action to be taken by: GMWG (Neal) and IOs (Kryc, Roehl, Kuramoto).

SciMP Action Item 0502-13: In investigating the potential problem of an oscillating (moving) plasma when using a quadrupole ICP-MS on a moving platform, SciMP was informed that CDEX has installed an ICP-MS on the *Chikyu*, which will be tested within the next year. SciMP asks that CDEX report to SciMP on the results of this testing.

Action to be taken by: Kuramoto.

SciMP Action Item 0502-14: SciMP will undertake ongoing and iterative liaison with JOI with regard to the design of scientific laboratories on the U.S. drill ship (SODV). SciMP will provide advice on lab design, priorities, and sample/core flow and will bring in other experts as needed. SciMP recognizes the urgency of this issue and Neal for SciMP and Kryc for the JOI Alliance are the contact persons.

Action to be taken by: Neal and Kryc, with input from all SciMP members.

SciMP Action Item 0502-15: SciMP receives the IODP Imaging Report to the Scientific Measurements Panel and will review it in preparation for the next STP meeting.

Action to be taken by: Basile et al.

Important Dates:

Deadline for sending reports and information to co-chairs for input to SPC meeting: 7 March 2005

Deadline for reviewing *progress* on ALL ACTION ITEMS: 29 April 2005

Deadline for third-party tools draft to co-chairs: 16 May

Deadline for submitting ALL REPORTS to co-chairs for next STP meeting: 19 June 2005

Possible date for next STP meeting: 11-13 July 2005

Meeting Minutes

Tuesday 8 February 2005

(Numbers refer to final agenda numbering – see appendices)

1. Welcome and Logistics

Okada and Wilkens welcomed participants and outlined issues relating to logistics. Okada thanks Wilkens for arranging meeting. Wilkens discussed meeting venue and field trip.

2. Introductions

Okada requested each continuing and new member, guest, and liaison to briefly introduce themselves. Two members were missing: Neal and Yamamoto will arrive later today.

3. Review and Approval of Agenda

Lovell opened discussion on the proposed agenda, circulated prior to the meeting. New agenda items concerned MARS-IODP boreholes scheduled for drilling in October 2005, to be presented by Steve Etchemendy from MBARI, a suggestion for agenda item (Palaeontology WG) to merge a and b, and to schedule possible discussion of forthcoming ILP meeting in Shanghai in late February 2005 with Okada would attend on behalf of SciMP. Wilkens made motion to approve, Screamon seconded. All present in favor, except for two absent members (Gulick and Villinger) and two late attendees (Neal and Yamamoto).

4. Review and Approval of Minutes from 2nd meeting of SciMP (June 2004, Boston)

Okada requested comments. None were forthcoming. Wilkens made motion to approve minutes, seconded by Screamon. All present in favor, except for two absent members (Gulick and Villinger) and two late attendees (Neal and Yamamoto).

5. SciMP Procedures and Protocol (Okada and Lovell)

a) SciMP terms of reference (to date)

Review of SciMP mandate. Duncan will discuss changes resulting from SPPOC December 2004 meeting in detail under Agendum 6.

b) Conflict of Interest Policy (COI)

Conflict of Interest Policy discussed. Important to be aware that conflicts will arise. During discussions, all members can participate. Expertise needed. Members must make conflicts clear. Schuffert emphasized that COI must be reported in minutes, and that SPPOC asks for an annual report of how SAS panels have dealt with COI. To make this easier the minutes of each meeting should identify COI in a separate section.

The only significant conflict of interest at the Kona meeting was Geoff Wheat for discussions of the MARS-IODP Boreholes (see Agendum 16) and the development of policy for such observatories. The panel noted this conflict but decided that Wheat's expertise and knowledge were crucial to the panel in this area and that Wheat should continue to be present for discussions and should be part of the working group for this topic.

c) Robert's Rules of Order

Lovell presented a reduced set of Robert's Rules of Order (Millard's Rules). Basically, one item at a time; one motion pending at a time; one member has floor at time; no member

speaks twice until all members have a chance to speak; keep discussion to issues; address issues through co-chairs. Rule by majority but protect the minority.

6. SciMP Mandate Changes (from SPPOC meeting December 2004)

a) a new name, the Scientific Technology Panel (STP); b) establishment of a direct communication line between the STP and IODP-MI; this is in addition to existing direct communication between STP and IOs; c) lose publications and gain observatories.

Duncan (SPC liaison) presented background of Science Advisory Structure. SPPOC *ad hoc* working group with SPC working group met three times concerning SAS structure. Review of existing structure inherited from ODP. Changes mainly to fully utilize the scientific and engineering expertise of SAS membership, and to improve flow of timely advice among SAS, IODP-MI, and IOs, and thus efficiency of IODP.

- Two SSEPs (19 each) merged into one (38 members)
- SSP work in closer coordination with SSEP.
 - Utilize SSP scientific expertise in the evaluation and nurturing of proposals.
 - Aid in the development of proposals initiated by scientists unfamiliar with obtaining seismic surveys.
- EPSP:
 - need for environmental expertise.
 - Initiate 3 year (renewable) terms.
 - Add vice chair
- SciMP
 - Name change, involved in earlier stage on proposals (are goals achievable?)
 - Short term advice on program goals
 - Observatory science
 - Communicate with both IODP-MI and SPC (direct connection to IODP-MI)
 - Requires new terms of reference
 - New name of panel -- Scientific Technology Panel (STP)
- TAP
 - Changed name to Engineering Development Panel (EDP)
 - Shorter term advice on proposals
 - Longer term advice on program goals
 - Prioritize engineering development
 - Communicate with IODP-MI and SPC
 - New terms of reference and name
- ILP
 - Will become PPG
 - Develop science projects combining industry and IODP goals
 - Writing proposals
 - Requires new mandate
 - New name of PPG

SAS functions

- Proposal evaluation/nurturing/ranking
- Expedition assessment (not as strongly represented in old program)
- Long term assessment planning

What is role of SPPOC?

- Challenge to SPPOC: not to simply delegate tasks to SPC

- Policy and oversight function, assessment at thematic level
- Review of performance of management
- Scientific outreach (publications)

Other SPPOC issues: how to foster programs without proposal pressure? Underrepresented science? Links to other international programs? How to involve other disciplines without marine science tradition? Summer school? How to integrate observatory science in IODP?

Blum asks about connection/communication between SAS panels and IODP-MI (not shown on diagram). Duncan says that specific means of communication have yet to be worked out. Schuffert suggested definitive diagram not drawn yet. In response to a query from Kuramoto, Schuffert agreed to report panel discussions to IODP-MI.

New STP terms of reference: a) General purpose, b) Mandate, c) Decisions (consensus or voting), d) Meetings - biannually generally midway between SPC. COI to be declared and recorded in meetings in minutes, e) Membership (represent information handling, downhole measurements, scientific measurements, and observatories), f) Co-chairs to be replaced by chair and vice-chair, g) Liaison - STP chair liaison to SPC.

Lovell summarized major changes as lose publications, gain observatories. Duncan final comment: SAS working well. Endorsement for smoother channels of communications. Lovell asked about the time scale. When does name and terms of reference change? Finalize at next SPPOC meeting in June. No SciMP input requested at this stage.

7. Discussion of status of SciMP's previous recommendations and action items.

Lovell summarized the outcome of the SPC meeting (October 2004, Corvallis Oregon). Lovell approved as co-chair. SPC reaffirmed the importance of prompt minutes. Review of SPC consensus and recommendations. SPC (Becker) expressed reluctance to accept individual recommendations on specific instruments instead of receiving some sort of prioritized list. Coffin proposed tabling this particular recommendation, and the committee agreed. The SciMP recommendation concerning CT scanner was received but lacked information placing it amongst other priorities. A request for more information on core imaging, question on CDC for non-riser vessel.

Basile asks why T profiles not requested for non-sediment expeditions, Wilkens responds that probes cannot enter hard rock. Publications: Wilkens asks what is currently in place. Duncan and Lovell respond that they are not sure, but out of our hands and probably with IODP-MI. Request to develop checklist of scientific measurements for SSEPs in evaluating proposals. Repeated request that SciMP and TAP work with MBARI scientist to develop a draft plan for managing the MARS-IODP borehole test sites. Request that SciMP develop guidelines for dissemination of expedition results during an expedition and during the post-expedition moratorium. Present at March SPC. Request for third-party tools policy.

SciMP Boston generated 16 recommendations, 8 consensus statements, and 26 action items. Request from SPC for more focus. Of 16 recommendations, 13 done (3 further work), 3 new work. Urge from Lovell to do fewer but more thorough. Wilkens: covering what three panels used to. Wide mandate, worry about details. 16 recommendations not a lot considering scope. Duncan: good comment. Details should go to management side rather than SPC. This process is being worked out. Lovell responded that we need to be clearer with what we are sending up.

Blum comment in agreement with the importance of communication with IODP-MI. Duncan clarifies that TAP not disappearing, but a name and mandate change.

8. Brief report on new developments for SciMP from most recent SPC meeting

SPC Consensus 0410-29: The SPC requests the SciMP to develop guidelines for disseminating expedition results during an expedition and during the post-expedition moratorium. The SciMP should present its recommended guidelines at the March 2005 SPC meeting, and the IODP should follow ODP procedures in the meantime.

Lovell presented some more information on discussions on SPC. Questions on press releases: What is fair basis - should shore-based scientists be included? Wilkens question asks to what extent the shore-based party was kept abreast of what was occurring at sea. Lovell thought communication was limited. Lovell request we think about today for discussion this afternoon (or tomorrow). Basile: asks for more details on what was meant by press release. Lovell gives examples of different press releases (e.g. Nature), explains that in past press releases credited to shipboard party -- now more complex, because of changes in program. See Agendum 17 for further discussion and recommendations.

9. Report from NSF (deferred to after ESO report)

Lovell presented some brief information on budget scenarios from Ruppel at NSF.

- Grants program reduced FY05, compensate in FY06
- Budget for next ship (note from KK: already reduced)
- List of projects
- Other projects and meetings, R/V *Langseth* in early 2006 for seismic.
- New guidelines for principal investigators.

Schuffert asks re ship calendar or fiscal year? Not specified. Higgins: informal information that it should be completed soon.

10. Report from IODP-MI (Schuffert)

Update: Personnel (list of personnel and their responsibilities): expect to hire third science coordinator (work with SSP, EPSP).

Task forces: assist IODP-MI in conducting specific major tasks, not considered permanent.

- Operational task force (formerly OPCOM)
- Review task force (formerly REVCOM)
- Education and outreach task force
- Publications task force
- Data management coordination group
- Meetings with IOs
- Meetings with national secretariats

Guidelines

- Main stakeholder is scientific community
- Principle source of advice is SAS
- IODP-MI implements SAS advice
- Annual operations plan goes to SPC for approval
- IODP-MI will ask SAS for advice on various matters
- Annual program plan
- IODP-MI to ask SPPOC to review IODP-MI performance on an annual basis

Duncan: are task forces a means for communication between SAS and IODP-MI? Schuffert responds that meeting of panel chairs may resolve some of the communication issues. Lovell notes that it is just missing from the diagram, is in the words, emphasizes importance of communication to IODP-MI. Schuffert notes that it remaining question how to decide which recommendations from this panel should go to SPC and which to IODP-MI.

11. Report from CDEX (Kuramoto)

- Outlines JAMSTEC organization change.
 - Some changes of CDEX organization.
- *Chikyu* updates
 - December sea trials (3-8 and 18-25)
 - January-February more inspections
 - One more sea trial before delivery
 - Construction to be completed in April, delivered to JAMSTEC (but proposed 1 month delay)
- Data management system is under operation
 - SIO7 (science info from 7 oceans)
 - J-CORES (JAMSTEC core systematics) based on JANUS system
 - Site survey Data Management DEXIS (Deep Earth Exploration Information service)
 - Seismic, logging data using geoframes
 - Operations start December 1. Handling NantroSEIZE site survey data. GeoFrame integration.
- Kochi core center updates
- Long-term borehole observatory
 - Working on NantroSEIZE long-term borehole observatory (7 km; high T, pressure control; many sensors; long-term). Review of operations and power supply.
- General schedule
 - *Chikyu*: IODP operations to begin October 2006

Schuffert: is Kochi operation open to international scientists? Kuramoto: now, just national scientists.

12. Report from JOI Alliance (Blum)

Expedition 301, 301T, 303, 304. 301: Juan de Fuca hydrogeology: replace CORK installation, new installations. 301T: Costa Rica hydrogeology: recover osmosamplers: successful replacement of sensor string. 303: North Atlantic Climate 1. 304: Oceanic Core Complex 1. Remaining 305, 306. 305: deepening Site 1309 (now ~1000 m into basement). 306: NA Climate 2 and Site 642 CORK.

USIO Program Plan activities: FY04 ODP, IODP, FY05 IODP plan and addendum, MREFC, FY06. SODV Phase 2 Bids have arrived and are being evaluated. Contract negotiations in May. Reviews schedule for riserless vessel. Porcupine carbonate mounds. GOM Hydrogeology: CORK disapproved because of safety concerns. Two APLs proposed, but concern by IO of lack of available timing. 309: Superfast spreading 1. Deepen 1256. Request to sail the DMT scanner on both Superfast expeditions. 311: Cascadia: CORK postponed: but PCS, microbiology, Hyacinth, Fugro tools, MWD, etc. 312: Monterey Bay: three cased re-entry holes, 300 m, no CORKs, but an umbilical. 313: Superfast Spreading II

Higgins: a lot of challenges in upcoming year, particularly Gulf of Mexico. A lot of

LWD/MWD. Demobilization: team to be established. Two Gulf of Mexico APLs may be tacked on transit? Update on SODV by Kryc later. Third-party tools: IODP needs a policy. Specific tools: piezo-tool for Gulf of Mexico; umbilical for Monterey. Policy to clarify expectations and deliverables. ODP policy was modeled on the experience with the development and deployments of third-party downhole tools. Observatories and labs also will be issue. Role of STP in reviewing downhole logging rationale and measurements plan in proposals and scheduled expeditions?

REVCOM: new institution composed of scientists and IO reps that is to evaluate expeditions; JOI is presently digesting recommendations from REVCOM. Wilkens asks what is reviewed. Blum: Look at science, technology. Schuffert: real scientific assessment will come later after all science is completed. Lovell: How does REVCOM report get fed back to SAS panels? More clarity as to how these results will trickle down will be called for. Imaging Action Item: well-defined and achievable Action Item. Blum will present later as separate agenda item.

13. Report from ESO (Roehl)

- ACEX expedition: 302 Lomonosov Ridge. Limited space.
 - ACEX onshore party: Nov 9 to 23rd, BCR 30 scientists (10 nationalities). 350 m of core. 10 days, 2 shifts
 - Tahiti Sea Level: Drilling vessel to be selected in early March; budgetary approval under final consideration, meeting on clearance. Science party has been invited.
 - Health, safety and environment considerations
 - Offshore science party is only a portion of the science party (summer 2005) onshore science party is true "science party"
- Future MSPs: Great Barrier Reef, New Jersey both with OPCOM
- No budgetary guidance yet.
 - New building: core repository finished.

14. Tahiti Measurements Plan (Roehl)

Offshore. Onshore. Neal question (email): What T will cores be stored at, and how maintained? Reply- 4 degrees C. Villinger (email): If core is dry, how useful will core logging be? Blum: can be done, but different methods needed. Questions on PP samples and microbiology. Schuffert: question on temperature. Lovell: notes suggestion from Villinger about high precision T logging. Okada: why no paleomagnetic measurements? Roehl: no useful data -- sediment maximum 20,000 years old. Okada: could get secular variation, quite high resolution. Roehl: can this be done on shore? Discussion of usefulness of paleomagnetic measurements -- problem of rotated cores, limited magnetic minerals in limestone/dolomite.

SciMP Consensus 0502-04: SciMP accepts the overall proposed measurements plan for the Tahiti expedition but brings the following points to the attention of the IO (ESO):

1. To preserve the microbiology of the sample, should mud be cored in Tahiti, SciMP advises that work must, rather than should, be conducted inside a glove bag under nitrogen. Provision should be made for squeezing mud.
2. Due to the highly porous and heterogeneous nature of the material likely to be encountered, physical properties measurements on discrete samples and core logging of many parameters may not yield good quality data. The co-chief scientists and IO should have a contingency plan in place for how best to handle discrete sample measurements and core-logging in the event the cores self-drain in a non-uniform manner.

3. Downhole temperature logging should be considered as it may provide useful insight into hydro-geologically active zones.

Wednesday, 9 February 2005

15. Use of core diameters different than the IODP standard – update (ESO)

Introduced by Lovell (related to Action Item 0406-01). Summary of email discussion: larger core diameters should not impact science; smaller cores could severely impact the science. Storage impact discussed. Neal: last point impacts MSP. Impacts flexibility. Sreaton asks that future legs may need to use smaller size to reach objectives (e.g., NantroSEIZE). Lovell states that this is primarily for Tahiti -- but may need to be revisited for other legs. Neal asks about measurement plan- will cores be dried? Response by Roehl that cores will be stored dry, not dried (??). Discussion and refinement of wording to distinguish between core handling at ESO for the expedition (including shore-based portion) and repository storage.

SciMP Consensus 0502-05: With respect to the Tahiti expedition, the ESO proposes using core diameters larger than the minimum in ODP. SciMP accepts that core diameters of a different size to those used routinely in ODP may be taken on condition the size does not detrimentally impact the science, or create curation difficulties either for the shore-based party or for repository storage.

Background: The standard ODP core liner inside diameter is 66.5 mm, and the standard ODP core sizes that go into that liner are: APC - 2.44" or 62-mm diameter; XCB - 2.312" or 59-mm diameter; RCB - 2.312" or 59mm diameter. SciMP recognizes that using core diameters significantly smaller than normal could severely impact the science but that using larger core diameters will not detract from efforts to achieve scientific objectives. Furthermore, the impact on total core storage volume is such that unless special circumstances prevail core should be limited to 79 mm. If larger cores are required, then ESO envisages core diameters up to 100 mm diameter can be accommodated relatively easily during the expedition (including both offshore and onshore science parties); cores up to 100 mm can be accommodated at all three repositories. ESO envisage such cores can be accommodated relatively easy by all current core logging/scanning systems.

16. MARS issues

This issue was discussed on Tuesday afternoon, before Agendum 14. Management of site, transition from IODP to MARS-IODP, and data management policy (Steve Etchemendy of MBARI, Kasahara, Wilkens). Request from SPC to develop a draft plan for managing the MARS-IODP borehole test sites. Issues to be considered: a) management integration and coordination and b) data management policy.

Steve Etchemendy reported: MARS Monterey accelerated research site (July to October 2006). 62 km of fiber optic cable to single undersea node (100 Mbits/s data rate; 10 kW of power to 8 instrument ports). Duncan asked whether points on lines are junctions. Etchemendy responded no, it is a smooth line. MARS currently NSF funded with MBARI lead institution. Will transition to NSF funded facility with MBARI as operator. VENUS focusing on scientific users. MARS is focusing on the instrument developers with an emphasis on testing. MARS facility operation: Science user expectations. Pending projects: Borehole test facility: 1 seismology site; 1 hydro-site (not two holes). Will be connected to UC Berkeley -- only seismometer on western side of plate. MBARI has test tank that can fit

ROV. Can re-engineer. MBARI will have very limited “store and forward” capabilities for data -- mostly pass-through. MARS is a facility (NSF); Orion will provide guidance, issues will be faced with OOI. Need to establish formal relationship with ORION (ORION has recently agreed). MBARI assumption that MARS transfers to ORION. Many currently surfacing issues: on funding, proposal selection. Recommendation to form an ORION oversight committee to address MARS issues and IODP should have membership on MARS oversight committee.

Kasahara: Description of ORION, MARS, and NEPTUNE. Okada: is Neptune global scale? Kasahara: No, limited to Cascadia. Wheat: Two boreholes in Monterey: cable run by Orion. Greater issue concerning boreholes. Example from Leg 301: dropped scientific gear caused lost day, was there biohazard? Datalogger? Need to be resolved. Who has right to put an experiment? Length of experiment? Conflicts? Should consider bigger picture of other boreholes. Needs to be facility to deal with corks, and help proponents. Kuramoto: Can non-US scientists put instruments in boreholes? Wheat answers yes, but problem that currently there is no oversight body. Korja. Who owns the data? Wheat: Good question. Presently, tools are third-party tools. Data comes to the principal investigators, should be transferred after two years. Kasahara: For Orion -- ???

Etchemendy: ORION intention to manage observatories -- cover all IODP assets? Wheat: pushing to get CORK (observatory) office going. Runs into problems with funding. Three organizations or one? OOI is US entity -- how would it interact with IODP? Blum: IODP-MI is trying to establish this on a more basic level (not specific to observatories). Duncan: All good and important questions. SPPOC is aware of this-- will look with ways to coordinate. Function of this panel to look at technology and what kinds of measurements should be done in this hole -- management. Give advice to SPC --Roy Wilkens: overlaps with discussions concerning third-party tools. Does MBARI have criteria for instruments? Etchemendy. Ask to see project proposal. Request that instrument comes through MBARI and is tested. Is it built well enough. Tested in test tank and MARS simulator. MBARI wants policy made to follow-- not to define policy itself. Etchemendy suggests we (IODP) participate in ORION. Okada: Perhaps better for IODP to have oversight committee. Etchemendy responds. Okada: Wheat pointed out that ORION is NSF. Wheat: Nankai will be Japanese (??) Kasahara: meeting with Orion/Neptune/IODP. Etchemendy: perhaps observatory/CORK oversight committee.

Wheat: perhaps we need to pass on SPC request because of the international extent of the problem. Example: P sensors and loggers. Should there be some management issue where these data belong to the shipboard scientific party? Also OSMO-samplers. Schuffert: upper levels will be interested in SAS advice on technical issues. Wilkens: we should stick with technical issues because we are a technical panel. Duncan: IODP ought to have rep on ORION. Any instrument that goes in boreholes has to be tested. Schuffert: what would it take to accommodate users?

Basile: not clear if IODP manages observatories. Blum: that is a major issue. Longer life cycle, multiple funding issues add complexity. Need a management plan. Etchemendy: does IODP get to comment on NSF proposals? Wheat: raises problems with conflicts between nations. Korja: how does any seismologist get data? Etchemendy: for MARS, it goes to NoCAL data center. Kasahara: all seismic data goes to IRIS. Wheat: if seismic data goes to web instantly, should all data. Kasahara: most ORION data will go to data center. Not sure

about other data. Okada: question regarding MARS/IODP testbed. Will data be open to public? Kasahara: I think so. Okada: all data? Kuramoto: question of QA/QC for data. Who has responsibility? Duncan: back to question of what gets put in borehole. Wilkens: old DMP assigned watchdogs to tools to track and compare. Especially important with observatories. Blum: serious lack of policy.

Lovell presents tentative recommendations concerning instrument testing, funding, QAQC, develop a means to assess proposals. Data ownership - access to data and databasing? Safeguards against borehole loss. How to track instruments? Wheat: proposals involving CORKs - short funding cycle limits science. Duncan: proponents should take advantage of panel expertise. Higgins: Issue of borehole servicing? Wheat: present mode of servicing is that country that funds, also funds maintenance and recovery. Korja: are there guidelines of length of time? Duncan: this is a chance to move from expeditionary to monitoring type science. SPC is aware of costs. Exp of Costa Rica -- SPC got proposal for ship to go back -- significant cost. Higgins: Limit on CORKs. Etchemendy: committee should discuss ROV serviceable boreholes, so drill ship not needed. Wheat: other boreholes have been serviced by submersibles. Schuffert: background on MARS proposal -- never scientific proposal -- always as testbed. Etchemendy: looking for IODP to give us guidance.

Lovell presents recommendations. Discussion follows concerning making SciMP working group with outside members. Discussion of merits of creating a working group versus a task force. Wheat lead on working group -- conflict of interest identified. Sreaton volunteers. Plus Villinger. Blum recommends data management expert and engineer. Etchemendy notes that ORION has recently had a meeting to work on data formats. Kasahara: we may not need to duplicate databases? Etchemendy is elated. MBARI could host meeting of working group.

SciMP Recommendation 0502-01: IODP should establish an observatory working group within SciMP/STP consisting of IODP SAS panel members (e.g. SciMP/STP and EDP). Outside parties will be included or consulted on a project-by-project basis as the need arises. This working group includes external members from the start and should exist until the end of 2006 in the first instance to cover the moratorium period resulting from the drilling of the IODP Monterey Bay Observatory boreholes.

Recommendation (i): The observatory working group will:

- a) Develop criteria for submission and evaluation of technical proposals for deploying, testing and retrieving instruments in IODP boreholes.
- b) Explore use of third-party tool policy as a model for observatory approval and implementation.
- c) Establish guidelines for observatory scheduling, including the period of deployment and prioritization of projects when competing requests exist.
- d) Establish guidelines for maintaining the integrity of boreholes before, during and after instrument deployment to ensure suitability for subsequent observatories.

Recommendation (ii): The observatory working group should use Monterey Boreholes as a test-bed for developing and refining protocols for the use of IODP boreholes as observatories. This effort will include a joint task force consisting of representatives from IODP, MBARI/MARS and ORION, with a commitment to international representation.

Recommendation (iii): The observatory working group should develop a policy for data management, including the rules and mechanisms for data dissemination. The policy should also address (a) long-term data storage, accessibility and compatibility of data and metadata

and (b) establishment of an archive that tracks the specific instruments used and other experimental protocols employed at each observatory.

Recent interest in the MARS-IODP collaboration suggests that borehole observatories will become an increasingly important complement to ocean drilling. This recommendation is in response to SPC Consensus 0410-28 and is linked to SciMP Action Item 0502-09 detailed below.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

SciMP Action Item 0502-09: Because of the impending installation of the Monterey Boreholes, SciMP/STP will develop a draft document that addresses the charge for the observatory working group. This draft report will be ready by March 7.

Action to be taken by: Wheat, Sreaton, Villinger, Kasahara

17. Guidelines for disseminating expedition results

SPC Consensus 0410-29: The SPC requests the SciMP to develop guidelines for disseminating expedition results during an expedition and during the post-expedition moratorium. The SciMP should present its recommended guidelines at the March 2005 SPC meeting, and the IODP should follow ODP procedures in the meantime.

Guidelines for dissemination of results through expedition press releases and during moratorium periods. Both issues involve shipboard and shore-based scientists. Recommendations made at SPC. SPC requested that recommendation come from full SciMP. Blum: Previously incorporated exceptions if science party approves. Lovell in agreement. Higgins: press releases and journal articles are different. Further discussion. General agreement with some issues (local press releases, cannot expect media to include all names) to be considered. Discussion refining wording and distinguishing between press releases and scientific abstracts and papers. Volunteers to re-word: Neal, Korja, Mandernack, Yamamoto.

SciMP Recommendation 0502-02: In response to SPC Consensus 0410-29, SciMP recommends the following protocols regarding the dissemination of scientific results during expeditions and moratorium periods:

- Where shore-based scientists form part of an Expedition Scientific Party, operators should provide daily progress reports to all shore-based expedition scientists.
- The full expedition scientific party must be recognized in press releases made during the expedition and scientists must be given the opportunity to review press releases. Press releases made during the expedition should be through IODP-MI.
- Co-chiefs are required to summarize the input to press releases from all participating scientists and present the revised version within a reasonable time frame. All critical scientific information pertaining to the expedition should only be conveyed to the press from the co-chiefs. However, this may be a problem because there will be cases where press releases would be made in languages that the co-chiefs are unfamiliar with. Therefore, the co-chiefs should prepare summaries that contain information that the science party can use for dissemination to the press in any language.
- The co-chiefs and IODP-MI should be notified of any press release made by any member of the science party during the post expedition moratorium period, as it may be difficult to solicit input from the entire science party for every press release.

- During the expedition and moratorium all public dissemination of results must credit IODP specifically. Scientific communications must be co-authored by the full ship and shore based expedition parties (except where they have chosen to opt out). The science party must be given the opportunity to review all papers and abstracts submitted during this time.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

18. U.S. Scientific Ocean Drilling Vessel (USIO)

Kryc (JOI): Update of status: received \$15 million. RFP issued in October. contractor proposals were due February 4. Final award in summer 2005. Description of SODV oversight committee, and formal reviews. Program advisory committee (call for volunteers). Science lab design teams (call for volunteers). Community outreach: town meetings, SAS updates, list servers, MREFC web site (www.joialliance.org/mrefc), SODV briefing book w/online questionnaire --feedback (best before 2005) used to modify designs.

Wilkins: where does SciMP fit in? Kryc: we hope that SciMP members volunteer. Open at moment. Neal: representative of *Chikyu* to help with uniformity of lab equipment/integration. General agreement. Kuramoto: should also see Kochi laboratory. Schuffert: how to publicize opportunities? Kryc: list server. Other ideas? Higgins: also target individuals. Neal: chemistry working group report formed email list-- good target for input. Lovell: short time scale. Need good strategy. Lovell: defer for after breakout sessions. Neal suggests contact on community outreach. Higgins: will likely be iterative process. Kryc: IODP-MI will compile responses.

SciMP Action Item 0502-14: SciMP will undertake ongoing and iterative liaison with JOI with regard to the design of scientific laboratories on the US drill ship (SODV). SciMP will provide advice on lab design, priorities, and sample/core flow and will bring in other experts as needed. SciMP recognizes the urgency of this issue and Neal for SciMP and Kryc for the JOI Alliance are the contact persons.

Action to be taken by: Neal and Kryc, with input from all SciMP members.

19. Reports from Paleontology Working Group

- a) Permanent archival status in appropriate major museums (Paleontology WG) (PWG)
- b) Common data content items of potential paleontological databases (Paleontology WG) (PWG)

Suzuki presents report. *Ad hoc* working group formed, met March 2004 and reported to the June 2005 (Boston) SciMP meeting. Report (w/6 recommendations) forwarded to SPC. Report was received. Tabled for further input from IODP-MI. Question of why the report was only received? WG revised recommendations.

1. to establish WG to provide advice to IODP-MI and young students onboard in consultation with SciMP.
2. MRCs should be continued as an integrated component -- IMRCs.

Neal asks if working group is within SciMP, and suggests that recommendations must come from SciMP, not PWG. Blum: This may be good case where it is best for SciMP to interact directly with IODP-MI, rather than through SPC. Lovell provides additional information on previous SciMP recommendations and SPC discussions. Issue of MRC funding -- never previously funded by ODP. Questions of MRC usage, sample ownership, also questions concerning onboard technical support. Duncan: Lovell summarized well. Keep pushing if it is important. Problem of how to implement, since it is new cost -- would take away from

something else. But is outreach and legacy. Schuffert: adds that tabling recommendation means that IODP-MI does not receive it officially. Wilkens: we cannot directly forward to IODP-MI? Schuffert: not until next meeting. Another question of whether working group under SciMP or IODP-MI task force -- affects funding.

Wilkens: original idea of MRCs was that it would not be a cost item. Live Internet connection means that shore-based expertise can be called upon from ship where gaps exist. Neal: Comes down to money. Two fundamental questions: should IODP maintain control of collections? What is cost? Need estimate. Higgins asks about size of collections. Suzuki responds that size is small. Kuramoto comments that IMRCs important for curation and education -- number of paleontologists has decreased. Blum: big issue is push forward to digitize collections and distribute/link. Traditional function of MRCs not big cost issue. Lyons: should interface with CHRONOS and other databases. Blum: trying hard to interface. Lovell: May need to separate recommendations for submittal to SPC. Possible action items for SciMP to detail costs. Duncan: Yes, keep on front burner. IOs will ask SAS to prioritize. Schuffert: How does recommended group differ from current SciMP paleontology working group?

SciMP Recommendation 0502-04: In light of actions given to the paleontology specialist on SciMP, SciMP recommends the continuation of the paleontology working group. The working group should include the SciMP paleontology specialist, at least one Micropaleontological Reference Center curator, and other invited experts on an as needed basis. The working group would meet electronically and, if required, representatives will meet with SciMP/STP. This working group includes external members and should exist until the SciMP meeting at the end of 2006 in the first instance.

Paleontologic identifications provide the primary source of shipboard and shore-based age determinations and therefore, the foundation of a broad array of the earth history studies that follow nearly every drilling cruise. Two problems were identified by the ad hoc paleontology working group regarding the ability to effectively and accurately establish consistent shipboard and shore-based biostratigraphies. The first problem deals with the declining number of specialists who are training the next generation of micropaleontologists and biostratigraphers. The second problem pertains to inconsistencies that accumulate over time in the nomenclature, application and interpretation of biostratigraphic data. If the paleontology working group is established for these purposes, the most current and accurate, paleontologic data will be available for use by other scientific communities.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

SciMP Recommendation 0502-05: SciMP recommends that the MRCs be continued in IODP.

The MRC collections and curators represent an important resource to IODP for the production of micropaleontologic training and public education materials, for maintaining quality control of paleontologic and biostratigraphic data within IODP, as a liaison to the broader micropaleontologic community, and for insuring an archival legacy of IODP micropaleontologic recovery. MRCs should continue in IODP with full access to samples, data, print or electronic sets of IR-type "Expedition Report" and Expedition Science Summaries. A previous recommendation received by SPC suggested renaming MRCs as IMRCs. Since MRCs currently exist outside IODP this is not an issue for SciMP or SPC.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

SciMP Action Item 0502-02: Two reports are required from the *ad hoc* paleontology working group.

1. For evaluation of funding issues and of potential for MRCs (possibly as IMRCs) by SciMP/STP, the *ad hoc* paleontology working group under SciMP should report a realistic proposal with minimum estimation of funding to achieve the proposed recommendations in the report from the paleontology working group in Washington, D.C. (e.g. taxonomic dictionaries with stratigraphic databases, post-cruise data capture, completing the IMRC slides, etc.).

2. The statistics on actual activity as well as association structures of MRCs (i.e. how many MRCs, annual costs in the past, the sum of archiving collections so far, funding agencies in the past, etc.) should be summarized for the next SciMP/STP meeting in Bremen, in order to provide background information for SciMP/STP and SPC members.

These actions follow on from SciMP recommendation 0406-05 and SPC Consensus 0410-16 and address queries made.

Action to be taken by: Suzuki

20 Breakout into Working Groups

Breakout groups: Time for presentations. Response to SODV briefing book. Dissemination of info during expeditions and moratorium period.

21 Report from Petrophysics Working Group

- a) Non-riser Phase II and the *Chikyu* measurements (Petrophysics WG)
- b) Review IO's QA/QC plan and strategy for inter-facility calibration (Petrophysics WG)
- c) Blind calibration tests – *ad hoc* group (Petrophysics WG)
- d) Minimum level of data processing and necessary skill level for processing downhole measurements across all platforms (Petrophysics WG & IOs)
- e) Temperature and pressure downhole tools (Screaton)
- f) Borehole experiments, and long-term monitoring *ad hoc* group (Kasahara)
- g) Progress on measurements on severely dilated samples (Petrophysics WG and Core Description WG)

SciMP Action Item 0502-07: SciMP petrophysics working group and IOs identify current status of downhole temperature and pressure tools, plans for calibration, software updates, database needs, and the minimum level of data processing and necessary skill level for the processing across all drilling platforms.

Action to be taken by: Screaton, Villinger, Wheat, Blum, Delius, Kuroki.

Presentation and discussion of live wire converted to general recommendation for means for two-way transmission of data.

SciMP Recommendation 0502-03: SciMP recommends that all IOs investigate a means for real-time transmission of data to/from downhole tools as part of the platform's complement (i.e., not logging contractor). Coupled to this recommendation is the modernizing of downhole tools to take advantage of this capability.

The May 2004 downhole tool workshop made several recommendations, including "Rapidly deployable, live, weight-bearing, umbilical" to provide two-way communication with downhole tools. Two-way communication would yield real-time feedback to the ship, where

decisions could be made to save valuable operational time. For example, continuous monitoring of pressure and temperature tools would reduce time should fast equilibrations occur and would signal tool recovery on failed deployments. There is a wide range of potential uses for two-way communications from obtaining drilling parameters to conducting packer/hydrofracture tests. We recognize that each IO is best suited to identify the most appropriate means to implement two-way communication with downhole tools and this is reflected in the recommendation. This recommendation is timely with respect to the publication of the US SODV Briefing Book.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

22. Report from Paleomagnetism Working Group: a strategy for QA/QC (Okada)

Inter-laboratory standardization and QA/QC. New to community. Standard samples described and flow diagram for standard exchange (including squid and spinner magnetometers) described. Kasahara initiates discussion of differences between using standards and blind tests. Lovell: This discussion also applies to petrophysics and chemistry -- difference between calibration and blind tests. Fundamental issue to consider. Suggest deferring to after chemistry working group. Blum: difference between QA and QC. Discussion continues and then is deferred until after chemistry working group report

23. Reports from Chemistry Working Group (Neal)

Neal reviews chemistry working group history and recommendations from working group report. Lovell recaps SPC response. Three recommendations went forward (sample handling, microscopes, international standards and references). SPC would not accept specific recommendations concerning instruments. Would help to prioritize instruments. Suggested combining three recommendations concerning technicians into one.

a) Modular lab concept for MSP operations

SciMP Action Item 0502-10: SciMP will continue to work with the IOs to investigate the modular lab concept for MSP operations and will build upon the framework discussed and presented at the February 2005 meeting in Kona. This framework to be used is that the modular lab for MSPs needs to be developed to make on-site measurements in the following priority:

- 1) Ephemeral properties (including safety) and/or preservation techniques of samples so that these properties can be measured on-shore. These include, but are not limited to pore water chemistry, total and viable cell counts, freezing of samples for onshore DNA and/or phospholipid measurements.
- 2) The analysis related to the drilling strategy must be done in the modular lab.
- 3) Measurements that will characterize the core.

The data taken in the modular lab should be of equal quality to those in other platforms.

Action to be taken by: GMWG (Neal) and IOs (Roehl).

Neal presents priorities for on-site measurements and preservation. Data quality should be equal (some flexibility needed). Needs were discussed, including gases, sterilization, and glove boxes.

SciMP Recommendation 0502-06: SciMP recognizes that separate gases (N₂; CO₂-H₂ mix) and glove boxes will be available on all platforms, where necessary, as they will be required for microbiology and pore water analyses and sample preparation. SciMP recommends that the microbiological glove box should be compatible with use of UV radiation as a sterilization agent.

The emerging field of geomicrobiology requires special sample handling facilities such that the cores are not contaminated in the platform-based sample-handling facilities. UV radiation is a quick and convenient way of sterilizing a work area. However, from SciMP's tour of the Chikyu in December 2003, it was noted that the soft plastic glove boxes installed therein are NOT compatible with sterilization by UV radiation (UV radiation degrades the soft plastic). Thus, establishment of sterile sample handling conditions will be difficult on the Chikyu. With this recommendation, SciMP seeks to have this issue addressed across all platforms.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

b) Environmental SEM and cathodoluminescence capabilities to the microscopy facilities on platforms and affiliated shore-based laboratories

Conclusion: environmental SEM on ship probably not high quality enough. Cathodoluminescence not limited by ship motion -- could provide new dimension to onboard analyses.

SciMP Consensus 0502-01: SciMP concludes that environmental scanning electron microscopy not be included as part of the on-board analytical capabilities for the riser and non-riser platforms, as it is unlikely that the stability required for the optimal operation of this equipment will be met.

SciMP Recommendation 0502-07: SciMP recommends that cathodoluminescence capabilities be made available as part of the microscopy capabilities on both the riser and non-riser platforms.

This type of apparatus should work as rolling of the ship should not cause major problems beyond that of normal optical microscopy. It will add a significant new dimension to platform-based analyses such that, for example, mineral zonation and various generations of cements can be identified. This can then guide other platform-based or shore-based investigations.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

c) Microwave digestion preparation

Duncan questions whether this equipment helps guide shipboard decision making. Neal responds that it increases turnaround, and thus will influence shipboard decisions Conclusion: should be fine on ship. Requires direct venting.

SciMP Recommendation 0502-08: SciMP recommends the inclusion of microwave digestion capabilities on both the riser and non-riser platforms to facilitate complete dissolution of rocks and sediments, as well as increased sample through put, for bulk sample geochemical measurements.

From CEM Corporation: The microwave should be fine on a ship; the new "MARSXpress" can digest up to 40 samples at once and can reduce sample dissolution time by a factor of 3-5. This is important for ICP-MS analyses as the flux-fusion method of sample preparation may

dilute some elements below detection (e.g., the analysis of mid-ocean ridge basalts). A MARS-type unit has the turntable right on the floor so it would be unlikely to get knocked off. This unit requires direct venting, but can sit on a bench next to a HF fume hood with its own venting pipe plumbed into that of the fume hood.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

d) Oscillating plasma when using a quadrupole ICP-MS on a moving platform

Assured by various vendors that a moving platform not a problem, but not tested. Kuramoto notes that CDEX will test on shakedown cruise.

SciMP Consensus 0502-02: In investigating the potential problem of an oscillating (moving) plasma when using a quadrupole ICP-MS on a moving platform, SciMP was assured by various vendors that this would not be a problem as the plasma is a supersonic jet and will not be deviated by a moving platform. SciMP notes, however, that no actual testing of this has been conducted. We note that CDEX has installed an ICP-MS on the *Chikyu*, which will be tested within the next year. (In a separate action item SciMP ask that CDEX report to SciMP on the results of this testing.)

SciMP Action Item 0502-13: In investigating the potential problem of an oscillating (moving) plasma when using a quadrupole ICP-MS on a moving platform, SciMP was informed that CDEX has installed an ICP-MS on the *Chikyu*, which will be tested within the next year. SciMP asks that CDEX report to SciMP on the results of this testing.

Action to be taken by: Kuramoto.

SciMP Action Item 0502-12: SciMP geochemistry and microbiology working group will investigate the feasibility of making a laser ablation facility (with radiation of 213 nm or less) available on the riser and non-riser platforms for interfacing with an ICP-MS. Specific issues will include but not be limited to sample throughput, QA/QC, versatility, and ability to influence drilling strategy during an expedition.

Action to be taken by: GMWG (Neal) and IOs (Kryc, Roehl, Kuramoto).

e) Gas-source stable isotope mass spectrometer on riser and non-riser platforms

Tim Lyons summarizes information from Finnegan MAT -- possible but not routine. Returns to question whether high-end equipment justifiable-- considering the requirement for a full-time technician.

SciMP Consensus 0502-03: SciMP concludes that gas source stable isotope mass spectrometry not be included as part of the on-board analytical capabilities for thee riser and non-riser platforms, as this capability will require intensive technical support and laboratory space, and sample through-put would preclude this capability from influencing drilling strategy.

f) Blind calibration tests

Mandernack initiates discussion of microbiology checks on cell counts by onshore analyses (DNA and lipid analyses). Check -- not all samples. Goal to establish microbiology reference for IODP. Nanba continues discussion. Additional discussion of IODP support versus external funding. Kuramoto describes microbiology lab and technicians for *Chikyu*. Duncan

suggests that flexibility in staffing (scientists versus technicians) may need to be considered. Mandernack and Namba will write up action item.

SciMP Action Item 0502-08: The geochemistry and microbiology working group will explore the feasibility of establishing more reliable reference calibration standards for quantifying total and viable bacterial cell counts of sediment and rock samples that should be routinely made on board the ship. These standards could also serve for intercalibration of microbiological cell counts made on different drilling platforms. Proposed reference standards might include analyses of bacterial DNA and phospholipids within the samples. For example, standard analysis of DNA concentrations can be measured in the samples more reliably and reproducibly than total cell counts. As a trial experiment, total DNA concentrations could then be directly correlated with total cell counts. This approach would require DNA analysis of a few replicate samples taken at various depths from the core and from which total cell counts were also made.

Action to be taken by: Mandernack, Nanba, Yamamoto, Lyons

QA/QC: Neal leads discussion. Duncan asks if data from onboard ICP of publishable quality. Neal answers for 192/197 that data are publishable. Wheat favors set materials-- gives example of chemical oceanographers. Lyons continues discussion. Neal discusses variability in tech support staff -- problem of continuity. Blum suggests the lab officer be trained and responsible for QA/QC. Duncan returns to direct communication between SAS and IODP-MI. Neal suggests point people should be identified at IOs. Korja: Needs to be tracking of instruments with the data. Higgins: large issue of personnel, continuity, integration. Sreaton introduces issue of observatories. Lovell suggests action item to be written by Neal.

SciMP Action Item 0502-11: SciMP recognizes the need for QA/QC protocols to be implemented for all scientific measurements to be made by IODP. In consultation with the IOs, each SciMP working group explicitly prepares a draft list of the existing or planned apparatus, their QA/QC and calibration procedures and reference materials used in their specialty areas. Each working group will evaluate the QA/QC protocols and make recommendations for their implementation that will:

- 1) be uniform across the different platforms;
- 2) be routinely used;
- 3) be sufficiently flexible to meet specific expedition scientific goals while maintaining the high quality of the data produced;
- 4) Allow easy comparison of similar data recorded by different platforms.

Each working group will report their findings at the next STP meeting.

Action to be taken by: SciMP (Neal, Korja, Suzuki, Villinger, Nanba) and IOs (Blum, Roehl, Kuramoto).

Discussion whether evaluation of data quality should be technician job and the specific wording of the recommendation. Lovell suggests making the recommendation more generic. Discussion continues on whether this should be a recommendation or an action item. Kept as recommendation and made more generic (across all labs). Blum suggests that this recommendation does not give specific action for the IOs. Schuffert asks the SPC liaison whether this recommendation differs enough from the one previously unaccepted by the SPC. Duncan considers it sufficiently different. Lovell suggests that this proceed through IODP-MI

through the Review Task Force, and this is included in the recommendation.

SciMP Recommendation 0502-09: In response to community input from ODP experience, SciMP recommends that all IODP technical staff should have improved experience and training, such that the technical staff are skilled enough to understand how to judge data quality and the problems associated with obtaining data that are of the highest quality. IODP technical staff should undergo appropriate training such that they are competent in areas such as maintenance, trouble-shooting, software, and deviation from prescribed procedures should a given situation require it. SciMP anticipates that the Review Task Force will be able to provide feedback to SciMP on the success of this recommendation, to effectively close the loop.

This is a revision of Recommendations 9-11 of the chemistry working group report submitted from the SciMP Boston meeting to SPC (Corvallis). By this recommendation, SciMP reflects the community input, obtained from our questionnaire sent out to the ODP community, that emphasized technician training and ability is a critical part of obtaining the highest quality data, not only in sample preparation and analysis, but also in maintaining and trouble-shooting problems with individual pieces of platform-based machinery. It is essential that technicians understand the various sample preparation techniques and are able to adequately judge data quality, possibly through appropriate training in an IODP-related research laboratory (e.g., Kochi, Bremen, TAMU, or appropriate university).

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

Recommendation 0502-10: SciMP recommends that facilities for accurate weighing on a moving ship be made available on the riser and non-riser platforms. Such facilities will greatly increase the quality of geochemical data generated on these platforms, enhancing their usability in scientific publications.

This recommendation is a revision of Recommendation 8 of the chemistry working group report submitted from the SciMP Boston meeting to SPC (Corvallis). By this recommendation, SciMP notes that accurate weighing of the samples and any added reagents is essential for accurate and precise data. As has been seen on the JOIDES Resolution, this is difficult on a moving ship, and introduced significant errors into the analyses both directly (through weighing errors) and indirectly (through conducting sample preparations by volume measurements rather than weight). We recommend that a balance be isolated (using gimbals or a gyroscope system) for such accurate weighing.

Vote: 16 yes, 0 no, 0 abstain, 2 absent (Gulick and non-voting ECORD member Villinger)

24. Report from core-log-seismic integration working group

Sakamoto: report continuing to be developed. Working group support workshop concerning seismic integration. E-mail from Gulick supporting continuing discussion until next meeting. Mention of USIO efforts on this front. Kuramoto: important issue for *Chikyu* operations. Supports workshop. ORI trying to get MEXT and J-DESC money. Kasahara discusses difficulties of comparisons on different scales. Lovell points out that promoting a workshop is not within scope of an action item-- suggests working group explores possibility of holding workshop. Discussion of goals of the action item. Sakamoto will write up action item.

SciMP Action Item 0502-03: A core-log-seismic integration (CLSI) working group will continue to develop a report on fundamental points of depth correction methods of construction of composite depth section and mcd (meters of composite depth) for the

recovered cores, core-log integration, and log-seismic integration. The ultimate goal is to provide protocols for CLSI across different environments. In order to complete this task, the CLSI working group will explore the possibility of holding a workshop to discuss various aspects and fundamental points of CLSI methods with scientists, data managers and programmers (including IOs) who have varied experience of CLSI, and report back at the next SciMP/STP meeting. CDEX/JAMSTEC and J-DESC would play host to the possible workshop.

Action to be taken by: CLSI working group (Sakamoto, Gulick, Blum, Kuroki, Takahashi, Kasahara, Higgins, Delius) with Kuramoto

25. IODP Imaging Working Group Report

Blum presents agreed upon standards from IOs for digital image acquisition, archiving, and online access. New developments (x-ray CT, whole-rock, thermal imaging) were also discussed but not yet at a stage to develop standards. Work on meta-data ongoing. Color quality control, operational quality control, and image processing protocol were agreed upon. Film photography by USIO will cease at the end of phase I. USIO and ESO will continue to collect one-shot core table layout shots. Images processed by scientists will be archived with metadata. IOs will create online archive of images for tech and outreach.

Lovell expresses that this is great example of IOs working together, suggests getting advance copies to SciMP prior to meeting for more detailed feedback. Schuffert asks about role of photographer. Blum responds that there is currently imaging specialist. Okada asks about core surface. Blum replies that the depth of field is sufficient to get good images with a little bit of roughness. But notes that for scientific descriptions, item for USIO is improved core splitter. Lovell will write consensus statement.

SciMP Consensus 0502-06: SciMP congratulates the IOs in working effectively together to develop the IODP Imaging Report to the Scientific Measurements Panel in respect of Action Item 04-06-24: (SciMP supports the creation of an archive that contains images of the highest quality possible. To this end, SciMP supports and encourages continued communication between the different IOs regarding the quality of archival images, and asks that they report on progress at the next SciMP meeting). Furthermore, SciMP acknowledges the role of IODP-MI in organizing and leading the IODP Data Management Coordination Group that produced this imaging report. SciMP wishes to stress the important significance of this first collaborative report from the IOs to SciMP. SciMP receives the report and will review this in preparation for the next SciMP meeting (as detailed in Action Item 0502-15).

SciMP Action Item 0502-15: SciMP receives the IODP Imaging Report to the Scientific Measurements Panel and will review it in preparation for the next STP meeting.

Action to be taken by: Basile et al.

26. Third-party tools

Wilkens presents some history of third-party tools that initiated third-party tool policy by downhole measurements panel -- available on ODP TAMU web site. Discussion of "certified tools" and development tools, important to preserve safety and safety of hole. Different standards for lab tools where time, costs, hole not impacted. Higgins discusses issue of data ownership for these downhole tools. Lovell reviews SPC comments and those from Villinger: complexity of multiple platforms, and observatories. Problem with continuity. Lovell indicates that SPC expects response for March meeting. Wilkens suggest the IOs examine

policy and return to sub-group. Lovell: extend policy to observatories, laboratory measurements, consider issues of data ownership, development versus existing third-party tools. Higgins indicates IOs are working on policy. Continued discussion of definition of third-party tools -- distinguishing between tools in development and existing tools brought aboard tool. Duncan: "Does it help to achieve objectives" is important issue. Discussion of deadlines and coordination with IOs and IODP-MI. Wilkens to write up an action item to write up draft document in next month.

SciMP Action Item 0502-04: A SciMP working group to coordinate with IOs on development of a draft general policy statement on third-party tools and instruments (laboratory, downhole, and observatory), both developmental and off-the-shelf prior to the March 14 SPC meeting (deadline for draft report to SciMP co-chairs 7 March). A follow-on draft policy will be developed by 16 May for forwarding to the SPPOC for mid-June meeting.
Action to be taken by: Wilkens, Villinger, Gulick, Kasahara, IOs – Meyers, Kuramoto, Brewer, IODP-MI - Schuffert

Thursday, 10 February 2005

Lovell provides list of working groups and timeline for upcoming meetings.
Deadline of March 7 for info for SPC meeting (March 14-17)
Deadline for reviewing progress on ALL ACTION ITEMS (Friday 29th April)
Deadline for 3rd party tools draft 16th May
Deadline of 19th June for submitting reports for the SciMP meeting
Tentative dates for SciMP meeting (~ July 11 to 15)

Important Dates:

Deadline for sending reports and information to co-chairs for input to SPC meeting: 7 March 2005.
Deadline for reviewing *progress* on ALL ACTION ITEMS: 29 April 2005.
Deadline for third-party tools draft to co-chairs: 16 May.
Deadline for submitting ALL REPORTS to co-chairs for next STP meeting: 19 June 2005.
Possible date for first STP meeting: 11-13 July 2005.

SciMP Action Item 0502-01: SciMP will ensure that contact persons from each IO and members from SciMP be specified for ongoing and iterative communication on joint action items from the various SciMP working groups.
Action to be taken by: All SciMP members and IO nominees as appropriate.

27. New developments and directions

Okada presents draft list for proposal cover sheet. Discussion of checklist and who is to fill out. Proponents or SSEPs? Decided that SSEPs fill out. At what point in the proposal process? Is it worthwhile? Large issue with confidentiality. Lovell summary: SSEPs and SciMP both seem unsatisfied with checklist idea. Need mechanism for specific proposals to be highlighted. Lovell suggests small group work on checklist wording tonight, provides list of action items, recommendations, and consensus statements to write out tonight.

SSEPs checklist presentation (Okada) and discussion. Will circulate for panel comments. Schuffert repeats concern that if STP can review proposals, this new checklist is not necessary. Discussion follows of interaction between SSEPs and SciMP/STP, and

re-organization in which STP sees proposals at an earlier stage.

SciMP Action Item 0502-05: The SciMP should continue to develop a draft checklist of scientific measurements for use by the SSEPs in evaluating proposals. The draft checklist should be presented at the March SPC meeting and discussed with SSEPs.

Action to be taken by: Okada

Lovell suggests that we form consensus statement that core description working group will address SPC Consensus 0410-22 through the earlier action item to review the SODV briefing book. Somebody will write up.

SciMP Action Item 0502-06: SciMP will revise core-description working group report to include new core imaging techniques and to reflect the Conceptual Design Committee (CDC) report and SODV briefing book for the IODP non-riser drilling vessel, (see SPC Consensus 0410-22).

Action to be taken by: Core description working group (Sakamoto, Basile, Kryc, Okada, Neal).

28. Recommendations, Consensus Statements, and Action Items

The panel reviewed all of the recommendations, consensus statements, and action items and suggested minor refinements and revisions of the wording, with short breaks as necessary for informal group discussions.

29. Future Meetings

Lovell discusses next meeting, and will keep us informed. Villinger will be host. Tentative following meeting in Kochi in February 2006. Very tentative following meeting hosted by Korja in Helsinki in summer 2006.

30. Rotation of panelists

None this meeting, following summer 2006 meeting: eight members would leave including both co-chairs. Lovell and Okada will investigate. Consensus statement in gratitude to Wilkens for hosting the meeting.

SciMP Consensus 0502-07: In a rare moment of unqualified consensus, the SciMP expresses its deep gratitude to Roy Wilkens for his many efforts in hosting the February 2005 panel meeting in Kona. In exchange for places full of snow, you brought us to where the trade winds blow and the molten lavas flow. Long hours in hard chairs were softened by the sounds of waves crashing and the scents of flowers wafting. By procuring a meeting room that was mercifully wireless-less, you protected our friends, loved ones, and colleagues back home from our temptations to gloat about the sun and surf in a steady stream of cruel email. For this, they too are grateful. And even sediment geochemists and micropaleontologists are unwavering in their appreciation of these basaltic surroundings. Roy, you have our many thanks for selecting a wonderful venue, for your work in guaranteeing the meeting's success, and for sharing the Hawaii Scientific Drilling Project. And if all that was not enough, you somehow convinced Kilauea that it was time once again for a spectacular show. With sincere appreciation, from all the participants of the third meeting of the IODP Scientific Measurements Panel, Mahalo!

Okada closed meeting at 15.00.

Note: Discussion of SciMP liaison to ILP meeting in Shanghai could not be decided due to lack of time but would take place electronically post-meeting and informally during the visit to Hilo.