DRAFT Report of the JOIDES Scientific Measurements Panel

Ocean Drilling Program, Texas A&M University
College Station, TX

June 17, 2002

Summary of SCIMP Recommendations to OPCOM/SCICOM
The following six recommendations and one consensus resulting from the June, 2002 SCIMP meeting in College Station, Texas are forwarded to OPCOM/SCICOM for comment and approval. All motions were passed unanimously.

SCIMP Recommendation 02-1-1
The Digital Seismic Data Submission guidelines prepared by the ODP Databank and Borehole Research Group/Lamont should be used as a standard for all digital seismic data. The guidelines together with the data documentation sheets will be uploaded to the Borehole Research group WebPages.

SCIMP Recommendation 02-1-2
SCIMP recommends that the ODP Science Operator incorporate all regularly collected data in the JANUS data model and that appropriate data up-loaders are provided. SCIMP also recommends that the JANUS data queries are modified to allow all data in the JANUS database to be accessed. For example, in the case of magnetic susceptibility, instrument type needs to be added.

SCIMP Recommendation 02-1-3
SCIMP encourages ODP to consider publishing, as part of the peer-reviewed Technical Note series, the multi-leg petrologic results compiled by Kurnosov et al.

SCIMP Recommendation 02-1-4
SCIMP endorses the concept of comprehensive metadata documentation for each of the prime data types in the JANUS database. These documents should address issues relating to data collection, data archiving, and data quality. Metadata documentation files would accompany the ASCII data archive and be available through the JANUS system.

SCIMP Recommendation 02-1-5
SCIMP recommends that FMS and digital line scan image files be archived as depth-associated ASCII vector files.

SCIMP Recommendation 02-1-6
Given the reduced need for advice to the current ODP as it enters its last year of operation, the JOIDES SCIMP recommends that it meet electronically for the remainder of its existence.

SCIMP Consensus 02-1-1
SCIMP thanks Carl Richter for his unflagging enthusiasm in the support of SCIMP and iSCIMP throughout his tenure as liaison from the science operator. We wish him well in his new career as a university professor.

Scientific Measurements Panel Member List

Jamie Allan	(US, Appalachian State University)
Christophe Basile	(France, Grenoble)
Christian Buecker	(Germany, RWE-DEA)
David Divins	(US, NGDC)
Mike Fuller	(US, University of Hawaii)
Eiichi Kikawa	(Japan, JAMSTEC)
Brad Linsley	(US, SUNY/Albany)
Ken MacLeod	(US, University of Missouri)
Ellen Martin	(US, Florida)
Philip Meyers	(US, University of Michigan)
David Smith	(US, University of Rhode Island)

Liaisons

Gerry Iturrino	(ODP-LDEO)
Brad Julson	(ODP-TAMU)
Frank Rack	(JOI)
Carl Richter	(ODP-TAMU)
Will Sager	(SCICOM, TAMU)
Elspeth Urquhart	(JOIDES Office)

Guests

Yoshi Aita	(Japan, Utsunomiya Univ.)
David Becker	(ODP-TAMU)
Susan Freeman	(ODP-TAMU)
David Fackler	(ODP-TAMU)
Hisao Ito	(Japan, Geological Survey of Japan)
Ann Klaus	(ODP-TAMU)
Kaz (Kuru) Kuroki	(JAMSTEC)
Rakesh Mithal	(ODP-TAMU)
Ted Moore	(iPC Co-Chair)
Saneatsu Saito	(Japan, JAMSTEC)
Jeff Schuffert	(iSAS Office)
Doug Schmitt	(Canada, Univ. Alberta)
Ken Takai	(Japan, JAMSTEC)
Urumu Tsunagai	(Japan, Hokkaido Univ.)
Yasushi Tsuritani	(JAMSTEC)

Regrets

Javier Escartin	(France, CCR)
Dae Choul Kim	(PACRIM, Pukyong National University)
Mike Lovell	(UK, Leicester University)
Peter Michael	(US, University of Tulsa)
Carlos Pirmez	(US, Shell)
Leonardo Sagnotti	(ECOD, INGV)

A) Introduction
The meeting began at 9:00 AM on Monday, June 17 at the Ocean Drilling Program, Texas A&M University, College Station, TX. After members and guests introduced themselves (with numerous guests representing iSCIMP members), Carl Richter gave an overview of logistics of the meeting. Consensus approval of the December 2001 meeting minutes was made, with Jeff Schuffert noting that Nobu Eguchi should be removed from the attendant list. A review of the amended agenda followed, with a call for additional agenda items.

B) Liaison Reports

JOIDES Report
Elspeth Urquhart gave a report bringing the SCIMP panel up to date on recent JOIDES activities and panel meetings. The January EXCOM meeting was notable for final approval of the FY03 Science and Program Plans, as well as the phase-out Program Plan for FY04-07. SCICOM met jointly with OPCOM in conjunction with the second meeting of iPC, requiring only the first 1.5 days of the 4-day meeting in March 2002. A significant point of discussion was how to deal with one new ancillary program letter (APL).

The great majority of ODP/JOIDES drilling proposals have been transferred to the iSAS Office. The single proposal for which the proponents did not respond to the transfer request is a preliminary proposal for work requiring a mission-specific platform; the proponents may have elected to seek support for this program on their own. For the JOIDES proposal deadline of March 15, 2002, no new preliminary or full proposals were expected, although one new APL was received: *APL-21, Investigating seismically-induced pore pressure generation that spawn tsunamogenic landslides, proponents K. Moran, A. Silva, H. Brandes, J. Pestana, H.G. Greene, H. Lee, G. Fryer, S. Grilli, J. King, P. Schultheiss, P. Watts*

This proposal was discussed at the March 2002 SCICOM meeting as described above.
APL-21 was submitted only a few months before the only possible scheduling windows (Legs 203 or 204) so SCICOM approved an accelerated review process as follows: (1) email review by SSEPs within one month of the March SCICOM meeting, followed by (2) email discussion by SCICOM and scheduling decision by early May. It was concluded that any positive scheduling decision would have to be provisional, contingent on (a) time becoming available during either of the possible legs, and (b) successful safety review at the June PPSP meeting. Since then the SSEPs have reviewed the APL, it was provisionally scheduled by SCICOM after an email discussion and forwarded to PPSP for consideration during the meeting in Barcelona (June 10-11). Nick Pisias added that the proposal had been unsuccessful on safety grounds following the PPSP review.

There will be an EXCOM meeting in June 2002, with the subsequent and final meeting scheduled for July 2003 in Bermuda to coincide with the port call of the JOIDES Resolution at the start of the final ODP Leg (Leg 210 Newfoundland Margin). SCICOM is scheduled to meet on August 26th in Ghent Belgium, with the iPC meeting scheduled for 27 – 29 August. OPCOM does not expect to meet again. The final meeting of TEDCOM is scheduled in July 8-10, 2002 in San Francisco to coincide with the iTAP meeting and the San Francisco port call at the end of Leg 203/start of Leg 204. JOIDES SSEPs, PPSP, and the SSP will no longer meet.

ODP Legacy topics were discussed. These include:
The Achievements and Opportunities document, which involves the four main themes from the Long Range Plan. In April, a CD-ROM was prepared of the galley proofs and distributed at the 4th European ODP meeting in Tromso, Norway. Copies of this CD are available on request from the JOIDES Office joides@rsmas.miami.edu. The volume has now been printed in hard copy and is in the process of being distributed as the current issue of the JOIDES Journal (vol. 28[1], June 2002). The volume is also posted on the JOIDES Web site http://joides.rsmas.miami.edu in the "What's New" section.

The Greatest Hits 2 -Abstract Collection, resulting from EXCOM Motion 01-1-8. Contributions mostly consist of one-page articles, including diagrams and figures. The articles are aimed at an educated but not scientifically or technically literate audience. Forty contributions for this volume have now been received and the titles and most of the articles are posted on the JOI Web site

http://www.joiscience.org/GreatestHits2/. The SSEPs agreed to review the articles in order to select about 20 for publication in a hard copy brochure (working title of Greatest of Greatest Hits), and this process began during the iSSEPs meeting in Santa Cruz (June 6-9).

EOS Article - Following the scheduling recommendations made at the August SCICOM/OPCOM meetings, the chair prepared an *EOS* article describing the science plan for FY03. This article was accepted quickly in November of 2001, and apparently because of a backlog has finally been published in the April 2, 2002 issue of *EOS* as
Becker, K., Ocean Drilling Program Plans Final Year of Operations, *EOS, Transactions AGU*, 83, 157 and 159.

Logging Report
Gerry Iturrino began with highlights of Legs 200 and 201 logging operations, describing operation of the Fugro percussion core tool. The drill string acceleration tool was used to monitor when pin-shearing causing hydraulic piston action occurred. Further information is given in the BRG logging report in Appendix A. On Leg 202, a good comparison was noted between core data and logging data. GRAPE density correlated well with average FMS resistivity and FMS images.

During Leg 204, resistivity at the bit (RAB), an initiative between TAMU, Schlumberger, and BRG, will be run. This instrument runs in battery mode, collecting a 360-degree resistivity view of the borehole like the FMS but at a lower resolution (150 mm versus 5 mm). Unlike the FMS, it has full 360-degree contact with the borehole wall (sleeve of buttons). Also for Leg 204, the drillstring acceleration tool has been modified to be compatible with the PCS; the associated data logger has 30-50 hour lifetime.

For Leg 206, the Co-chiefs want a wireline 3-component magnetometer. BGR scientist Ulrich Kalberkamp has such an instrument with an orientation gyro- as he is upgrading the tool, the Leg 206 Co-Chiefs are not yet in position to seek SCIMP endorsement. An earlier version of this tool was deployed during Leg 148.

TAMU Report
Carl Richter gave highlights from the Operator's report- please refer to Appendix B for further details. The Leg 203/204 portcall has been moved from San Francisco to Victoria for fear of a longshoreman's strike. Co-chiefs have been selected through the end of the program; TAMU has noted a large number of applicants for Legs 207-210. Carl then reviewed the operational schedule to the end of ODP, followed by highlights from recent legs.

Carl first discussed Leg 200, focusing on the exciting coring results of the Oahu Nu'uanu landslide as well as noting successful completion of the hole for later seismometer installation. Leg 201 was ODP's first microbiology cruise. It was noted by heavy tool use with many tests of new downhole tool that will be used on Leg 204. There was a heavy use of PFT tracers and glass microspheres for contamination testing, and it represented the first use of the radioisotope van. Importantly, there was little problem with radioisotope contamination; a background of 50 cpm was measured in the van, with only one minor contamination event of 200 cpm on a refrigerator door. Wipe tests for contamination were done when anybody left the van, and weekly wipe tests by TAMU staff also occurred. Wipe tests consisted of taking a Chemwipe and swabbing surfaces, and then placing the Chemwipe in a liquid scintillation counter to test for tritium, ^{14}C, and ^{35}S. Van personnel either changed shoes or wore booties over their shoes to minimize contamination. Scientists subsampled for microbiology outside the van (using 3-5 cc syringes) rather than take core whole-rounds for subsampling within the van, thereby minimizing material going into the van. Leg 201 scientists took many borehole temperature profiles, and also noted an exponential decline of cells with depth.

There was an enormous amount of pore-water chemical data collected from the highest number of samples ever squeezed on a leg (approx. 640). The APC methane tool was deployed 8 times on Leg 201 with excellent results, as was the DVTPP, deployed 12 times with 5 times obtaining lithostatic pore pressure. An improved PCS, with a new cutting shoe design and an increased inner barrel ID. was deployed 17 times on Leg 201. The APC drillover technique, where the BHA is drilled-over the APC core barrel, was an essential part of the leg success; this technique took longer to drill but resulted in only one lost bent core barrel. This technique was done extensively on Leg 202 as well.

Leg 202 does not yet have a written Preliminary Report, and Leg 203 was out at the time of the meeting. Leg 204, is perhaps the most instrumentally complicated leg in history, with heavy downhole instrumentation requirements.

Regarding shipboard engineering developments, there is a new filter for the weight on bit Active Heave Compensator (AHC) indicator. The Rig Instrumentation System (RIS) has a new PFT tracer pump under automated control; weight on bit (WOB) measurement is now integrated into the RIS as well.

JOI Report
Nick Pisias gave the report, with many practical operational observations from being fresh off the boat from Leg 202. He first concentrated on database and data archival issues.

Phase-out concerns have been raised by JOI on archival issues in discussions regarding the ODP phase-out plan. Priorities are as follows:
1. Uploads for all shipboard data into JANUS.
2. Migration of all shipboard data sets into JANUS.
3. Compilation of data reports (need input from SCIMP on formats).
4. Data archiving (such as: should ASCII format also be used for images, including logging such as FMS).

On Leg 202, Dave Fackler set up flat ASCII data tables from all Leg 202 JANUS data sets. SCIMP should address these data tables for completeness. David also set up files for metadata- are these the right metafiles? Again, these are questions for SCIMP.

Nick stated that JOI has decided to set up a JOI Data Legacy committee rather than directly seek advice on myriad legacy issues from the JOIDES structure. At the end of the meeting, he solicited advice from SCIMP as to who should be on the committee.

Nick then gave an overview of where he thought problems existed in the current shipboard lab regarding a high recovery paleoceanography leg. First, there are core flow issues when legs have very high recovery. The current core flow in such cases resembles Brownian motion more than a smooth measurement pathway. He believes that a more flexible floor plan and instrumentation plan is needed to accommodate such legs. Secondly, priorities for instruments and scientists need to be better defined. Presently, all workstations in the sediment lab face away from the lab center, with data tracks rather than people workstations given priority. There were basic time issues involved in measuring core: 1.5 hour per core were needed on average on Leg 202 to process the core, causing backlogging in core processing. The leg also saw 2 m of tidal amplitude, keeping triple APCing from getting full recovery because passive heave compensation could not keep up (active heave compensation does not work with the APC). As a result, they needed to stagger coring to keep rising and sinking tides from interfering with getting the needed recovery overlap.

Nick noted significant issues regarding shipboard instrumentation development and use. Specifically, he considered the example of the GEOTEK core scanner: was the goal of digital core scanning the production of core images or of core color data? The expectations of the community were mixed and often confused for this instrument. Some parts of the community want images; others want digital core color data. He illustrated problems of getting calibrated, quantitative color data from the current scanner. He also revisited problems with obtaining natural gamma on the MST on high-recovery legs- the MST cannot be run slowly enough to get adequate quality data.

Nick then placed his observations into implications that needed to be considered for the IODP. Goals for instrumentation need to be defined, including definition of specifications, calibration and quality control. Development of instrumentation should be towards meeting community expectations.

C) Review of SCIMP Recommendations and Action Items
Jamie Allan reviewed the status of previous SCIMP recommendations. All were accepted by either SCICOM or the iPC as detailed below

SCIMP Recommendation 01-2-03 resulted in the following SCICOM Consensus 02-01-03:
SCICOM has considered SCIMP recommendation 01-2-03 concerning data archiving, database mirroring, and the formation of a data legacy working group. SCICOM agrees with SCIMP that maintaining the integrity of ODP data in perpetuity, and assuring future access to this resource, is essential to the ODP legacy. SCICOM would also like to be sure that a functional database system is transferred to IODP as seamlessly as possible. SCICOM therefore recommends that SCIMP plan for formation of a data legacy working group, including an evaluation of what expertise is needed and available (both within and outside SCIMP) and what the working group mandate should be. Issues to be addressed by this working group may include identification of (a) critical archiving gaps with present data sets, (b) challenges associated with storage of metadata, and (c) problems that could be avoided during development of IODP data bases, policies, and storage procedures. We ask SCIMP to consult with the interim director of JOI, who has considered many of the relevant issues, and (informally) with appropriate iSAS panels as necessary, and to report back to SCICOM by August 2002 with a plan for formation of this working group as part of the broader issues of ODP legacy and ODP-IODP database transition.

During the SCIMP meeting, Nick Pisias (interim director of JOI) informed the panel that JOI would directly seek advice from a JOI-directed Data Legacy Advisory Group regarding data archiving issues, rather than seek advice through the JOIDES structure. The reasons for this, which the panel agreed with, were that the issues needed much quicker response time and depth of knowledge than the JOIDES advisory structure could provide. Nick noted that advice from SCIMP regarding issues identified by this JOI-directed group would still be sought. Nick solicited suggestions for membership of the JOI Data Legacy Advisory Group, which the panel provided.

SCIMP Recommendations 01-2-01, 01-2-04, 01-2-05, 01-2-06, 01-2-07, 01-2-08, and 01-2-12 resulted in the SCICOM Consensus 02-01-05:
SCICOM accepts the following SCIMP recommendations and applauds the efforts already made by the ODP Operators to address them:
SCIMP recommendation 01-2-01 concerning hard-drive support for digital core data
SCIMP recommendation 01-2-06 concerning the IESX Joint Pilot Study
SCIMP recommendation 01-2-07 concerning the legacy technical summary documents
SCIMP recommendation 01-2-08 concerning core resistivity measurements
SCIMP recommendation 01-2-12 susceptibility point measurement for AMST

In addition, SCICOM endorses SCIMP recommendation 01-2-04 concerning potential development of a high-resolution downhole magnetic susceptibility logging tool for ODP and IODP.

SCIMP Recommendations 01-2-09 and 01-2-11 resulted in the following SCICOM Consensus 02-01-04:
SCICOM reaffirms the importance of all ODP samples as an integral part of the ODP legacy. Therefore, SCICOM requests that the Science Operator takes all necessary steps to maintain the integrity of the entire ODP sample collection as the ODP phase-out approaches. This includes the thin section collection as noted in SCIMP recommendation 01-2-11. In addition, SCICOM endorses SCIMP recommendation 01-2-9 encouraging host countries of Micropaleontological Reference Centers to underwrite costs of maintaining these centers.

SCIMP Recommendations 01-2-02 and 01-2-10 resulted in the following iPC Consensus 2-3:
The iPC accepts SCIMP Recommendation 01-2-02 on using digital core images for archiving purposes in IODP, SCIMP Recommendation 01-2-10 on maintenance of Micropaleontology Reference Centers in IODP, and iSCIMP Recommendation 01-1-1 on development of an IODP sample and data distribution policy. The iPC further encourages the iSCIMP to address these topics at its next meeting.

Regarding an action item from the previous SCIMP meeting, Christian Buecker led a discussion of the new seismic data guidelines proposed by the ODP Databank and the Borehole Research Group/Lamont, given in Appendix 1 of this report. His positive views of these guidelines led to the following recommendation:

SCIMP Recommendation 02-1-1
The Digital Seismic Data Submission guidelines prepared by the ODP Databank and Borehole Research Group/Lamont should be used as a standard for all digital seismic data. The guidelines together with the data documentation sheets will be uploaded to the Borehole Research group WebPages.
Passed 10-0-0.

D) Shipboard Lab Overview

Core Description Lab
SCIMP noted that no JANUS upload for the point source susceptibility instrument on the archive half multisensor track (AMST) exists in the JANUS database model, preventing the data from being uploaded into the JANUS database. This observation resulted in the following recommendation:

SCIMP Recommendation 02-1-2
SCIMP recommends that the ODP Science Operator incorporate all regularly collected data in the JANUS data model and that appropriate data up-loaders are provided. SCIMP also recommends that the JANUS data queries be modified to allow all data in the JANUS database to be accessed. For example, in the case of magnetic susceptibility, instrument type needs to be added.
Passed 10-0-0

A number of items related to Leg 204 were discussed. The GEOTEK resistivity system for addition to the MST track has been delivered. An X-ray linear scanner from Lawrence Berkeley Labs will go out on Leg 204 if build time permits. It is a vertical, lead-encased track, with a 2-D x-ray camera. Two infrared camera systems will be used to look for evidence of degrading or degraded gas hydrate in imaged core. PCS gas manifolds have been automated with data loggers. In addition, HYACINTH tools have undergone certification. Transfer chambers have been tested with the vertical multisensor core logger under pressure, so a complete HYACINTH system will be available. ODP will be able to place APC core in the core logger system as well if the HYACINTH drilling systems fails. The Fugro piezoprobe (pore pressure dissipation measurement) tool has been modified so it can be used with the APC/XCB, allowing direct comparison with the DVTPP tool on Leg 204.

Magnetic Lab
Core splitting saws during Leg 202 were noted to interfere with measurements, raising the importance for the need for room shielding in IODP.

Chemistry Lab
It was noted that the IW data couldn't be upload to JANUS on Leg 202. Rakesh Mithal thought it was a procedural issue.

Paleontology/Microscope Lab
Microscope alignment issues were noted, although these should be addressed by servicing at the Leg 204 portcall.

Downhole Measurements Lab
All memory tools have been upgraded and made more robust- dataloggers in particular.
The single channel VSP (QSSD tool) tool can now be run with the triple combo- this possibility will be test run on Leg 204. This could reduce rig-up time for VSP experiments considerably. In addition, DOE money has been procured to run the prototype logging-while-drilling NMR tool that can discern between ice, hydrate, and fluid.

Underway Lab
GI guns will be used on Leg 204 and are installed. Teledyne is still repairing the tow cable for the port side streamer. The 12 kHz PDR system is very noisy, and being worked on- ODP/TAMU is not sure if this is a transducer issue.

Frank Rack then gave an overview of industry interest in gas hydrate research, as well as activities being done to promote ODP-industry ties in such research and measurements. The post-2003 use of the JR is being discussed with industry and DOE; NSF owns the JR labs and is insisting that such use of the labs be consistent with the ODP principles of data sharing, will be scientific projects.

E) Hard Rock Working Group Overview

Jamie Allan gave an overview of the Hard Rock Working Group Report, given as Appendix C of this report. The panel accepted this report by consensus to forward to the iSCIMP for consideration. The panel felt that the issues of core description raised by this report needs to be put into a larger context, noting that they are relevant to description of all core types. A white paper and/or workshop are needed.

F) Kurnosov manuscript issue

Ann Klaus and Frank Rack led a presentation regarding a proposed manuscript by Victor Kurnosov et al. entitled *Alteration Effects in the Oceanic Crust*. This manuscript, based on DSDP and ODP samples from numerous legs, examines alteration of basalts from all oceanic environments cored by the DSDP and ODP. SCIMP was shown a Table of Contents for the manuscript, with text length greater than 136 pages with additional numerous appendices. SCIMP was asked how ODP could accommodate such a manuscript. Specifically, could it fit in the technical note series, could it be shoehorned into individual leg publications, or should a new publication category be created? The panel felt that this publication should focus on the data itself, rather than contain a great deal of interpretation. The panel did feel that this was valuable data, noting it would be difficult if not impossible to publish in the outside literature.

Recommendation 02-1-3
SCIMP encourages ODP to consider publishing, as part of the peer-reviewed Technical Note series, the multi-leg petrologic results compiled by Kurnosov.
Passed 10-0-0

G) JANUS Data Archive Issues

Dave Divins gave an overview of the March, 2002 meeting at ODP/TAMU regarding the JANUS SQL data queries used to generate flat-field data files for NGDC archiving.
All queries are to be evaluated for content and format by the end of September, 2003. No JANUS mirror site will exist at NGDC, unless there is no overlap of ODP and IODP data management activities. All data queries will be run at Hole level.

There is a need to examine existing JANUS queries to determine whether further queries are needed and to determine what is missing from each query. Metadata data description files will be created for each query.

Susan Freeman then gave an overview of ODP Data Archive Metadata documentation.
Metadata are needed for data integrity but it is a huge job. She gave an example of a possible format, with the example considering XRF data.

I Data Collection
Data Collection Method- use lab manual, shipboard handbook where available
- Standard operating procedures
- Sampling procedures
- Equipment
- Data acquisition procedures- calibration, reference standards, software

These metadatafiles would document changes over time as well.

II Data Archiving
A. ODP Data Archive Procedures
- Before JANUS

After JANUS

B. Migration of data to JANUS
Migration procedures
JANUS data model

C. Archive Data Files
Format and description of fields

III Data Quality
A. Description of data by leg
Equipment model
Software version
Departure from data acquisition SOP
Problems found- equipment failure, core condition, any problems identified by the shipboard party

B. Verification
Migration to JANUS
Migration to archive files
Resolution of discrepancies

C. Data Quality statement

Sources of Information
Initial Report volume
Scientific Results volume
Explanatory notes
Lab tech reports
Shipboard handbooks
Lab procedures manuals
Logbooks
Data forms
Techs
Staff scientists
Leg scientists

There will be a reference list for all sources used to compile the metadata report, which will be online. There is a need for a basic format agreed upon by TAMU, NGDC, and JOI for these metadata files.

SCIMP Recommendation 02-1-4
SCIMP endorses the concept of comprehensive metadata documentation for each of the prime data types in the JANUS database. These documents should address issues relating to data collection, data archiving, and data quality. Metadata documentation files would accompany the ASCII data archive and be available through the JANUS system.
Passed 10-0-0

Problems of archiving large datafiles were then considered. Relevant image files include those from digital line scanners, archived as 1200 dpi .Tiff files with embedded .XML metadata files. They also include digital hand-held images preserved as .Tiff files,
digital photomicrographs, and close-up photos, color since Leg 174. Close-up photos included in the IR volume are considered archive, and have been digitized in electronic volume since Leg 176 (others are not yet digitized).

FMS images are currently archived as .Tiff files to the NGDC. A long-term strategy is needed to deal with these files. Panel discussion led to the conclusion that a depth-number-number ASCII format is the most desirable archive format, as it is readily imported into a variety of application programs.

SCIMP Recommendation 02-1-5
SCIMP recommends that FMS and digital line scan image files are archived as depth-associated ASCII vector files.
Passed 10-0-0

In response to stated concerns regarding mixed archiving of printed and electronic IR and SR volumes, the panel was told by TAMU that ODP has film and microfiche archives of both electronic and print IR volumes. VCD's are all preserved on microfilm. Should we archive SR results as well? ODP/TAMU may be able to scan all DSDP and printed ODP volumes to make PDF files with ASCII text backup using Texas A&M digital library funds. SCIMP as a panel encourages this process which would make all DSDP and ODP volumes available online.

The JOI Data Legacy Working Group will prioritize the above and other legacy-related issues, including the preservation of data and having easy accessibility to DSDP and ODP data and publications. Advice may be sought in the future on such ranking from SCIMP.

H) Next Meeting

The need for physically meeting again was discussed. In light of the JOI decision to create its own Data Legacy Working Group (a decision informally approved by SCIMP members who were present), the following recommendation was passed.

SCIMP Recommendation 02-1-6
Given the reduced need for advice to the current ODP as it enters its last year of operation, the JOIDES SCIMP recommends that it meet electronically for the remainder of its existence.
Passed 10-0-0

Finally, SCIMP and iSCIMP members joined in the following proclamation:

SCIMP Consensus 02-1-1
SCIMP thanks Carl Richter for his unflagging enthusiasm in the support of SCIMP and iSCIMP throughout his tenure as liaison from the science operator. We wish him well in his new career as a university professor.