Scientific Measurements Panel (SciMP) Meeting

June 29 to July 1, 1998
Lamont-Doherty Earth Observatory

REPORT

Scientific Measurements Panel Participant List

Members

David Anderson	(US, NOAA)
Arthur Cheng	(US, Western Atlas)
Peter Flemings	(US, Penn State University)
Joris Gieskes	(US, Scripps Institution of Oceanography)
Alexandra Isern	(A-C-CT-K, University of Sydney)
Thomas Janecek (Chair)	(US, Florida State University)
Siegfried Lallemant	(France, Ecole Normale Superieur)
Christopher MacLeod	(UK, University of Wales)
Roger Morin	(US, USGS)
Rick Murray	(US, Boston University)
Sverre Planke	(ESF, University of Oslo)
William Sager	(US, Texas A&M University)
Saneatsu Saito (for Won Soh)	(Japan, University of Tokyo)
Juergen Wohlenberg	(Germany, RWTH-Aachen)

Liaisons

John Farrell	(JOI)
Susan Humphris	(JOIDES)
Gerry Iturrino (Host)	(BRG)
Jay Miller	(ODP)
Carla Moore	(NGDC)

Guests

Dave Goldberg	(BRG)
Ann Klaus	(ODP)
Bill Mills	(ODP)
Kate Moran	(JANUS SC)
Mary Reagan	(BRG)

Apologies

Patty Fryer	(US, University of Hawaii)
Brian Huber	(US, Smithsonian Institute)

A. Introduction

The meeting started on Monday June 29th, 1998 at 8:30 am and ended on Wednesday, July 1, 1998 at 12:30 p.m.

The Chairman welcomed the panel to Lamont-Doherty Earth Observatory and expressed a special welcome to new panel member Sverre Planke, who is representing the ESF. In addition, he welcomed alternate member Saneatsu Saito (for Won Soh).

Gerry Iturrino, the host for the meeting, explained the arrangements for the meeting.

The Chairman presented a brief overview of the Agenda and asked if there were any other Agenda items that anyone would like to add. None were suggested. The Chairman continued on with the Agenda, beginning with the update on Action Items from the February 1998 SciMP meeting.

B. Update on Action Items from February, 1998 meeting

Recommendation 98-1-1:
SciMP recommends that Section 6.4 of the Sample Distribution Policy be modified in such a manner that the six month deferral period prior to sampling the Permanent Archive (PA) no longer be required. Implementation of the PA sampling will be overseen by the ODP Curator on a core-by-core basis, but with the approval of the CAB (Curatorial Advisory Board) required for each case.

OPCOM Consensus 98-1-4: OPCOM accepts SciMP recommendation 98-1-1 that the 6 month deferral period prior to sampling the Permanent Archive (PA) no longer be required. Implementation of the PA sampling should be overseen by the ODP Curator on a core-by-core basis, and the approval of the CAB for requests to sample the PA will be required in each case

Recommendation 98-1-2:
SciMP requests SCICOM/JOI to provide in a timely manner a summary on SciMP Motions and Recommendations. This information should be relayed to SciMP at the earliest convenience, well ahead of the next meeting.

The minute and motions of the SCICOM/OPCOM meetings are now posted on the WWW in a timely matter.

Recommendation 98-1-3:
SciMP recommends that SCICOM ask ODP/TAMU to pursue the development of an integrated sampling, data, and publications policy through collaboration between the ODP Publications Office and the Curatorial Advisory Board (CAB), and that ODP/TAMU submit to JOI for approval the integrated policy by April 1998.

The integrated sampling, data, and publications policy is currently under revision and will be ready for distribution in late July/early August 1998.

Recommendation 98-1-4:
SciMP recommends that adequate training of shipboard scientists is undertaken in the use of APPLECORE and PALEO facilities by a trained specialist either before or during drilling legs. This will insure proper use of these facilities and a smooth manner to get the data into the JANUS database.

Jay Miller (ODP-TAMU liaison to SciMP) reported that training is now conducted on a leg-by leg basis as needed. Paleontologists are now given the opportunity to train either at ODP-TAMU or in port.

Recommendation 98-1-5:
SciMP strongly supports the sequential drilling and logging of sections of a drill hole, when potential degradation of a drillhole may endanger the success of a post-drilling logging operation.

OPCOM Consensus 98-1-5: OPCOM notes SciMP recommendation 98-1-5 regarding the importance of sequential drilling and logging of sections of a drillhole, and encourages Co-Chiefs to consider this in their cruise planning and operations.

Recommendation 98-1-6:
SciMP urges that, with both Shipboard Measurements and Downhole Measurements under its purview, that SCICOM ensure a mechanism under which SciMP can provide inputs in a direct manner in operational plans involving third party tools and experiments.

OPCOM ACTION ITEM 98-1-10A: The LDEO/BRG liaison to SciMP will present a summary of the proposed logging plans of the highly regarded proposals to SciMP for comment.

Recommendation 98-1-7:
SciMP, after due considerations of the proposals and recommendations by the Micropaleontological Research Centers, urges acceptance of the recommendations made by the MRC lead Curator regarding the distribution of slides to various paleontological investigators.

OPCOM Consensus (by email) 98-1-6: OPCOM accepts the recommendation made by the Micropaleontological Reference Center Lead Curator regarding the distribution of slides to various paleontological investigators.

C. Liaison Reports

1) JOIDES Report

Susan Humphris reported on the previous SciMP recommendations to OPCOM/SCICOM (see section above), the ship schedule, IODP, and status of the PPGs. Ship operations will remain in the Pacific and Indian Ocean areas through FY2001 and then will return to the Atlantic for the end of Phase III.

In response to questions about PPG longevity, PPG reports/minutes, and SciMP input to PPGs, Humphris noted that PPGs are set up for three years and reviewed each year at the Spring SCICOM meeting. At this point in time, reports are not required and are sporadic in nature. SCICOM may direct the PPGs to deliver reports. Humphris said that some PPGs may require SciMP liaisons and most could use SciMP watchdogs (see Section J, below).

Humphris next reported on activities related to the Integrated Ocean Drilling Program. An organizing committee has been set up to plan a 1999 scientific conference to discuss the future of scientific drilling. The conference will be based on submitted letters of interest about future drilling initiatives. The number of letters of interest will be used to gauge the community's interest in ODP's future. In particular, applications with industry will be desired. The meeting will be held May 26th-29th, 1999 at the University of British Columbia in Vancouver, BC. It is important to note that the conference will not focus exclusively on non-riser drilling.

Humphris said that seismogenic zone drilling is a number one target for IODP riser drilling. Call for letters of intent have been distributed for projects relating to this topic as the *JOIDES Resolution* may have to do preliminary drilling. These letters will be used to create a Detailed Planning Group that will formalize strategies for drilling in seismogenic zones. The first experiments will take place at a seismogenic zone close to Japan in 2500-3000 m water depth.

Humphris reported that SCICOM will set up Technical and Operations Workshop in the fall of 1998 to provide advice on the most effective mechanisms to determine the technical requirements and infrastructure of IODP. The goals of the workshop will be 1) to identify the most important technical and infrastructure issues to be addressed, and 2) to suggest the most effective mechanisms by which these questions can be addressed.

2) JOI Report

Kate Moran reported on a number of topics. Moran noted that JOI is now fully staffed again. Moran is the new Director and Frank Rack has taken over as Assistant Program Director. Moran noted that improved communication between all levels of ODP is a number one priority

Moran presented the budget for ODP Phase III. It is balanced for FY99 but Moran noted that ODP is working on 5 legs as opposed to 6 for next year. Costs are going up over the next four years and ODP will have approximately $4 million less for science. The program plan has been prepared, finalized, will shortly be forwarded to NSF.

Moran discussed industry participation in the program. There is a short-term need to pursue and collaborate on technologies of mutual benefit to both industry and ODP (with Hammer Drilling used as an example). In the long-term, the goal is to enhance and broaden the science base to include industrial needs (e.g., basins on passive margins). An industry consultant may be hired to deal with these issues.

Moran reported that JOI has begun discussions with DOE (Fossil Energy groups) for collaboration with Deep Biosphere science and potential help with additional funding. She noted that if a permanent microbiology structure is needed on the *JOIDES Resolution,*

planning for it to happen in dry-dock must take place soon. If a portable van can be used for a microbiology lab, there is still a need for structural improvements to the labstack. Again, it was noted that the Deep Biosphere PPG has been asked to come with a report on what is needed and that it would be beneficial for SciMP to have Deep Biosphere PPG liaison.

Finally, Moran noted that JOI is required to have another performance evaluation review. The review (PEC 5) needs to start in calendar year 1999.

3) ODP-TAMU Report

Jay Miller presented some highlights of the ODP operator's report (See Appendix 98-2-1) concentrating on SciMP related issues. Miller summarized the successes of Leg 179 (Hammer Drilling Leg) but noted the added expenses that were incurred and the science that was lost as result of shipping errors prior to the leg.

Miller said that ODP has not received much direction about the Microbiology Lab and that, with dry dock rapidly approaching, bids must be sent out now if a permanent facility is needed. Humphris noted that SCICOM is on record saying they want a container as part of a phased-in approach. Bill Mills responded by saying that the lab-stack foundations will be strengthened in dry dock. A container, though, would be considered a point-source weight requiring the lab stack to be strengthened with pillars and that it may be cheaper to add a permanent lab instead. Humphris again noted that the Deep Biosphere PPG has been asked for their minimum needs to start an effective program.

Miller requested recommendations on a list of engineering and downhole tool development/handling prioritizations and asked for comment on these during the meeting (See Section G. below).

Finally, Miller reported that the Active Heave Compensator is currently being re-bid and would be installed at dry-dock at the earliest.

4) LDEO/BRG Report

Gerry Iturrino provided a brief summary of LDEO/BRG operations over the past few legs (See Appendix 98-2-2 for details). Highlights included a presentation of the new satellite transmitted and (shore-processed) GHMT data from Leg 178, an update on the Sagan/CLIP programs (testing on Legs 181/182), and dry dock plans (replacement of the Maxis and an upgrade to the downhole tools lab).

Iturrino noted that as of the end of May, 1998 all conventional log data has been migrated to the on-line log data base. SciMP commends the Borehole Research Group for the timely completion of this massive data-migration effort.

B. JANUS issues

PALEO Application

The panel first discussed the PALEO application issue (see Appendix 98-2-3). The PALEO application has received very mixed reviews since its first use. The JANUS Steering Committee felt the program was robust and that most problems could be addressed with proper training. The Steering Committee asked for a report from ODP-TAMU last February(?) on the problems encountered on Legs 173-177. Based upon their investigation, ODP-TAMU noted two major difficulties, the speed of the program and interface flaws (too many screens). ODP-TAMU personnel then took steps to correct these flaws and redesign much of the program interface to answer the numerous complaints from scientists who have used the program. The JANUS SC and JOI felt that ODP-TAMU should not have proceeded with these redesign steps, as the application was approved every step of the way through development by the user group. The bottom line here is that it is imperative that SciMP develop a mechanism for providing oversight to JANUS-related issues to prevent this scenario from happening again.

ODP-TAMU is now ready to send out a fix that speeds up the existing application. In addition, ODP-TAMU is ready to out a new application that addresses the speed problem with the old application and incorporates a spreadsheet-type interface. At this point in time the panel recommends the following action:

RECOMMENDATION 98-2-1 (by email after the meeting):
SciMP recommends that ODP-TAMU send out the new PALEO application for testing as soon as possible but that ODP-TAMU should not continue with significant further development until ODP-TAMU can provide a report to SciMP about the robustness of the program and success of its data capture ability. The report to SciMP does not need to wait until the next SciMP meeting. It should be distributed via email as soon as it is ready for SciMP review.

Development of SciMP oversight to JANUS

SciMP then discussed the development of protocols to deal with JANUS-related issues. A consensus of the panel was that at least two SciMP individuals are needed to keep track of changes in the program and provide the panel (and ODP-TAMU) with relevant information on a timely basis. These individuals must have a keen interest in ODP and have a good working knowledge of laboratory operations on the ship. With the help of these two individuals and other outside experts (e.g., individuals from old JANUS user groups) SciMP can provide OPCOM with recommendations for policy and operational decisions (e.g., what types of data to first migrate into JANUS). Implementation of these policy and operational recommendations, if accepted by OPCOM, would then be left to the appropriate groups (i.e., JOI and ODP-TAMU).

ACTION ITEM 98-2-1:
The SciMP chair will appoint two individuals from SciMP to become JANUS liaisons to ODP-TAMU.

Borehole Research Group Database issues/update.

Mary Reagan presented an update on the Borehole Research Group's progress with a number of database issues. She noted that all conventional data has been migrated to the on-line Borehole Research Group data base and that FMS data migration is underway and should be completed by the end of the year. Specialty tool migration (GHMT, BHTV, GLT, VSP) will begin this fall.

Reagan reported that BRG has begun working with GFZ on the development of a data model for pointers to image data as well as sharing expertise on log presentation

techniques. It is the consensus of the panel that this interaction between BRG and GFZ should continue.

A final discussion ensued about the difficulties encountered by many scientists in utilizing some of the web-based logging data, and with determining what types of applications are most useful in analyzing the logging data. Based upon this discussion SciMP makes the following recommendation:

RECOMMENDATION 98-2-2:
SciMP recommends that the Borehole Research Group develop a web-based primer on the general use of logging data and specific applications.

E. Curatorial and Publication Issues

Ann Klaus reported on the new Initial Reports (IR) volume, the evolution of the Scientific Results (SR) volume (See ODP Status Report, Appendix 98-2-1), and the new integrated sample, data and publications policy (Appendix 98-2-4)

1) IR Volume changes:

During the first five months of 1998, the Publication Services Department worked on the prototype design for the new *Initial Reports* (IR) volume booklet format. A design has been developed for the listing of volume contents, and formats created for chapters and prime data material. As directed by JOI, all material will be prepared in the PDF format. The page layout has been designed for easy on-screen reading, but also fits onto the printed page. Klaus presented a mockup of the booklet product, the basic layout of a chapter and the user card guide. In summary, the IR spiral-bound, hard-cover booklet will contain a CD-ROM user guide and one science chapter called the Leg Summary chapter. The Leg Summary chapter will be written in the format of a scientific paper. The IR CD-ROM will contain all the information printed in the booklet plus the other "standard" sections of the *Initial Reports* volume (explanatory notes, site chapters, and prime data).

Klaus explained that a print-on-demand product was a laser-printed copy of PDF files, not a formally printed book. She asked panel members to spread this news to help clear up the misconception that exists in the community. ODP/TAMU is investigating the cost for print-on-demand IR volumes. Klaus also clarified that everyone who is currently on the standard distribution list for books will receive the Initial Reports Booklet/CD-ROM product beginning with Leg 176.

Janecek asked if the new IR format would influence the number of FTEs at TAMU. Klaus replied that there would be no change in FTEs, but savings would be seen in reduced printing costs.

Several options were presented by Klaus for pricing of the IR volume and SciMP was asked to recommend a pricing structure.

RECOMMENDATION 98-2-3:
SciMP recommends:

1) **The standard IR product distribution should be a package containing the booklet with the Leg Summary chapter and the volume CD-ROM. After standard distribution is completed, the CD-ROM can be sold without the booklet.**

2) **The price of the booklet and CD should be set at $25. In addition, the CD can be distributed without the booklet for a reduced cost of $10.**

2) SR volume evolution:

Ann Klaus next presented a summary of the evolution of the SR volume (Appendix 98-2-1)

Between FY95 and FY97, in an effort to reduce the Publication Services budget by 30%–50%, two major changes were made to the Publication Policy that would lead to a reduction in the department's annual operational budget of approximately $400,000 between FY97 and FY02.

The two policy changes were:
1. Beginning with Leg 160, allow scientists the option of publishing post-cruise results in either the *Scientific Results* volume, or in any peer-reviewed scientific journal that publishes in English.
2. Beginning with the Leg 176 *Initial Reports* volume and the Leg 169 *Scientific Results* volume, only publish *Proceedings of the Ocean Drilling Program* volumes in electronic formats (CD-ROM and World Wide Web).

The first policy change was well received but, for a number of reasons, these policies have led to a significant decline in contributions to the *Scientific Results* volume. Data show that because of these two policy changes, the average number of contributions to the *Scientific Results* volumes will drop by as much as 75%; 50% with the advent of publication in outside literature, and a further 25% when book production ends (Table 1 in Publications section of Appendix 98-2-1). The expected decline in contributions to the *Scientific Results* volume appears to be so severe that ODP/TAMU recently met to discuss the value of continuing to produce this publication. After analyzing the data, ODP/TAMU formulated a plan to eliminate the *Scientific Results* volume and to create a WWW-based journal for data reports, synthesis papers, and technical notes. With a web-based volume, a contribution could go on the web as soon as it was ready. A web-based SR volume will allow for submission of papers after the 4-year CD compilation (see Recommendation below) and also will allow the program to easily produce topic-specific CD's.

SciMP makes the following recommendations regarding the SR volume submission, production, and publication procedures:

RECOMMENDATION 98-2-4:
Revise Scientific Results (SR) submission, production, and publication procedures to take advantage of the WWW medium.

i) Allow participants to meet the publication obligation by submitting manuscripts or data reports at any time post cruise and initiate a peer review process upon submission.

ii) Once accepted, publish individual papers on WWW.

iii) Link all publications to the leg-related citation list on the WWW.

iv) Require fulfillment of obligation (deadline for submission) to be 28 months post-cruise for all publications. Allow additional manuscripts and data reports to be submitted after 28 months.

v) Produce and distribute a CD-ROM containing reprints of leg-related SR papers at 48 months post-cruise.

vi) **Continue to require ERB members to remain active for 48 months postcruise. After this period, have Staff Scientists coordinate the peer-review process of additional data reports.**

Many panel members felt that the production of only a CD-ROM for each leg after four years would not be well received by the community or libraries. The Panel felt it would be better to have the CD-ROM placed in a small booklet (with a flat spine for ease in shelving access in libraries and office bookshelves). The CD-ROM booklet could then contain a leg-synthesis paper to complement CD-ROM.

With regards to the content and style of the Scientific Results, SciMP makes the following recommendation:

RECOMMENDATION 98-2-5:

i) Add to co-chief responsibility: write, or coordinate, a leg synthesis paper to be published in the SR volume.

ii) Publish a booklet that contains the leg synthesis paper to accompany the volume reprint series on CD-ROM.

iii) **JOI and TAMU will determine submission deadline for synthesis paper.**

A general discussion ensued about what is the legacy of the program and the difficulty in tracking outside literature to show what science has been accomplished by the Ocean Drilling Program. John Farrell suggested that ODP might allocate resources to mine the electronic publications for ODP-related publications. Carla Moore indicated that this had been done in the early 1990s. It was the consensus of the panel that a list of outside ODP-publications be maintained. In order to develop and maintain a list of ODP-related publications SciMP makes the following recommendation:

RECOMMENDATION 98-2-6:

SciMP recommends that the science operator investigate the costs and tasks involved in compiling and maintaining a comprehensive list of publications resulting from DSDP and ODP research, in order to assess the significance and impact of the scientific drilling program.

1) Integrated Sample, Data, and Publication policy

Revisions to Integrated Sample, Data, and Publication policy were reviewed by SciMP in a discussion led by Ann Klaus and several additional changes were made.

Major changes to the Policy include:

•Selection of ERB members:
Previously: ERB members should be selected before the leg begins.

Revised at SciMP 6/98 meeting: The need for external ERB members should be determined on a leg-by-leg basis. Need should be evaluated based on workload (i.e., the number of papers) and co-chief/staff scientist expertise.

• Definition of Obligation
Previously: An obligation to ODP is incurred if you:

a) receive samples during the moratorium or the post-moratorium period, or
b) receive data during the moratorium period.

Revised at SciMP 6/98 meeting: An obligation to ODP is incurred if you:

a) sail on a leg, or receive samples or data as a shore-based participant during the moratorium, or
b) receive samples during the post-moratorium period.

•Fulfillment of an Obligation
Previously: This obligation must be fulfilled by:

a) submitting a paper in a peer-reviewed scientific journal, or an article or a data report in the Scientific Results volume, and
b) submitting all data to ODP Data Library.

Revised at SciMP 6/98 meeting : This obligation must be fulfilled by:

a) publishing a paper in a scientific journal, or if the paper is rejected by the journal submitting a data report to the Scientific Results volume, or
(b) publishing a paper or data report in the Scientific Results volume.
(c) If a sample or data recipient is unable to produce research results because appropriate samples or data were not retrieved during the cruise, or because data could not be obtained during postcruise analyses, a letter of explanation must be submitted to the ODP Curator.

RECOMMENDATION 98-2-7:
SciMP recommends that JOI and ODP-TAMU adopt the revised integrated curation and publications policy.

Finally, Ann Klaus presented an "obligation list" for shipboard participants that ODP Science Services has compiled. The idea is to create a package for scientific party members that

1) defines an ODP obligation,
2) outlines the responsibilities and obligations associated with participating in an ODP cruise or receiving post-cruise samples or data,
3) outlines the details of the sampling, data, and publication requirements for fulfilling the ODP obligation,
4) shipboard participants would be asked to sign.

SciMP believes that such an obligation list is a good idea. SciMP is concerned, however, about the legal ramifications of participants signing an obligation list and feels that ODP-TAMU/JOI need to investigate the legal aspects further before it is brought to SciMP for a formal recommendation.

F. Long Range Plan for Data Archival

NGDC Archive Proposal

Carla Moore (NGDC liaison to SciMP) presented a proposal by NGDC to establish an ODP database mirror site at the US National Geophysical Data Center and the co-located World Data Center A for Marine Geology and Geophysics for the purposes of maintaining an ODP archive (See Appendix 98-2-5 for the full proposal).

Moore explained that, historically, preparation of data for transfer to NGDC has been labor-intensive for the Science Operator. At the end of the DSDP, data preparation continued two years beyond actual drilling and was a major effort for both DSDP and NGDC. Although establishing the archive was painful, it proved worthwhile when NGDC was able to assist ODP in its first years by providing backup data from the parallel archive where needed. As ODP began producing data, transfers to NGDC required ODP staff to download and prepare data. After Leg 129, when use of the 1032 database declined and data were collected in diverse forms, data transfer to NGDC ceased in anticipation of a new database system at ODP. Now that JANUS is in place, issues of data archival can be addressed again.

NGDC proposes to use Internet mirroring technology as a new, cost-effective approach to completing and maintaining the ODP parallel archive. By virtue of the nature of mirror sites, the data would automatically be updated at NGDC whenever ODP made a change. No post-drilling data transfer program would be required.

Once established, NGDC staff would assume the burden of maintaining the mirror site, providing access statistics to ODP, and performing data downloads from the ORACLE database to officially-sanctioned archive media. These services would be at no cost to the Ocean Drilling Program and would require no effort on the part of ODP staff other than maintaining the mirror connection.

Bottom line. By the end of the program, 50 plus legs of data will need to be transferred and ODP, NGDC, and JOI are going to face the cost eventually. This is planned as a step in mitigating the cost. Establishing a mirror site at NGDC, as at any other site, would require a small amount of one-time funding from JOI/ODP to defray the cost of a database server and software licenses, and would require support from ODP staff for initial configuration of the database and software at NGDC.

RECOMMENDATION 98-2-8:
SciMP recommends that NGDC work with JOI to investigate the most efficient way to complete the DSDP/ODP data archiving. The results of this investigation should be presented at the next SciMP meeting.

Aspects of Long-Term Data Archival

SciMP next examined the topic of the migration of post-cruise data into the JANUS database. David Anderson presented a series of questions and issues relating to migration of post-cruise data, including:

1. What data to include?
   - All data or types relative to LRP?
   - Published data or all data generated? diversity of data /quality of data may be different
   - How much data is involved?
2. How to archive the data in JANUS?
   - Requires $. Is it an amount comparable to legacy data migration?
   - Requires scientific expertise to determine quality and type of data to use
   - Requires thorough metadata describing the data in the database.
3. How do we get scientists to contribute?
   - Tie to future funding
   - Currently done by NSF
   - Incentive needed for old data to be submitted

All of the above actions need to be done with specific goals in mind.

Several other data/publication storage and data migration issues were raised, including 1) How long should IR and SR volumes remain on a WWW, 2) Who will maintain web-site after the program ends (repositories?), and 3) Does what you keep on a web-site influence the cost (and thus a need for SciMP to prioritize)?

At this point in the discussion, it was clear that the Panel needed to gather further background material to continue on this topic and to make specific recommendations. The following Action Item resulted:

ACTION ITEM 98-2-2:
The SciMP chair will designate a sub-committee of SciMP to begin investigation of these data migration and WWW issues and lead a discussion of these issues at the next SciMP meeting.

G. Programmatic Service Prioritization

Susan Humphris began this discussion by providing the panel with a review of the current budget and the impact that rising day-rates and inflation will have on a flat budget and hence, the success of many of the objectives of the Long Range Plan. She presented the EXCOM MOTION 98-1-8

EXCOM Motion 98-1-8

Presently determined budgetary constraints through 2003 will negatively impact the delivery of the Long Range Plan. EXCOM asks SCICOM to prioritize future science

objectives to maximize the objectives of the Long Range Plan, clearly indicating those which cannot be achieved under existing budget projections. SCICOM should also identify and prioritize changes in program activities, services, equipment needs and technological development. SCICOM is asked to forward its report to EXCOM by September 1998.

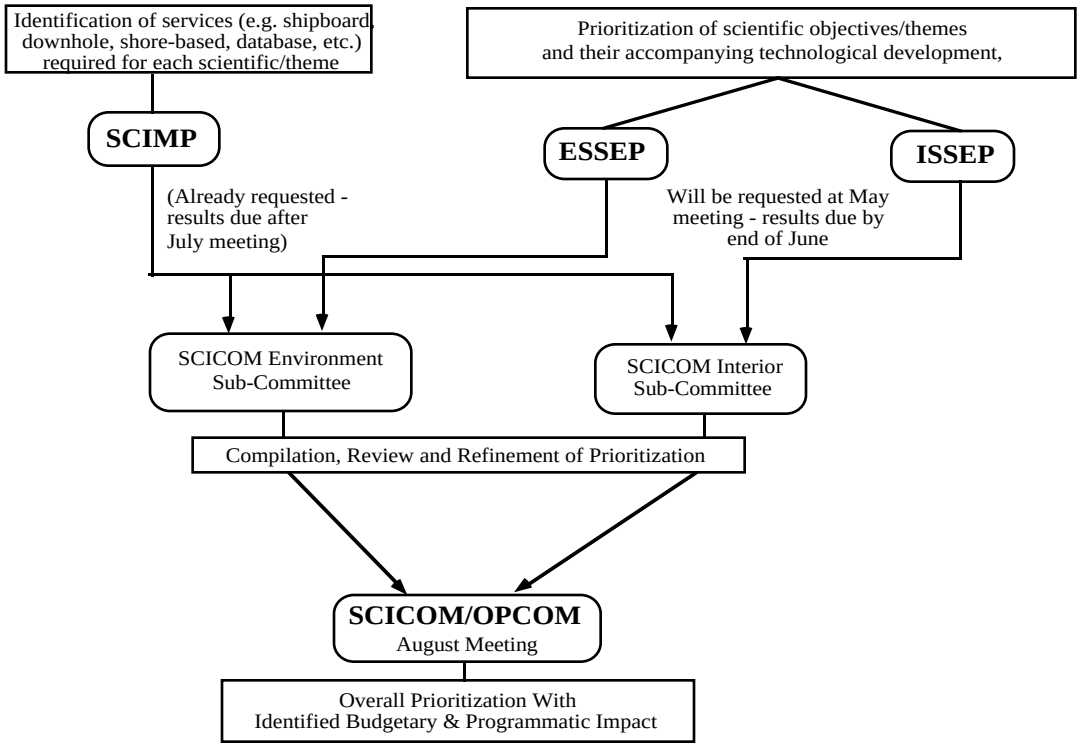
Humphris went on to say that in response to this motion, SCICOM decided that, rather than approach this by considering what to cut, a better way would be to rebuild the Program from a programmatic point of view and then decide what services are required. Hence, two levels of activity were identified. First, there needs to be a prioritization of scientific objectives/themes in the Long Range Plan and identification of the required accompanying technological development, shipboard, & downhole services. Second, the services (e.g. shipboard, downhole, shore-based, database, etc.) now offered routinely for every Leg need to be prioritized based on what science must be accomplished.

Hence, SCICOM passed the following consensus:

Consensus

In response to EXCOM Motion 98-1-8, SCICOM adopts the following procedure to provide a framework based on a prioritization of themes of the Long Range Plan for future budgetary decisions:

Mechanism for Producing a Programmatic Framework for Budgetary Decisions



Consequently, SCICOM asked SciMP to take the Long Range Plan and tabulate what *specific* services are absolutely essential to accomplish each scientific objective presented, and what services would augment the science but are not absolutely necessary. At this point, SciMP was not to base this analysis on cost, but rather on accomplishing the goals of the Long Range Plan.

At the request of SCICOM, SciMP assessed the impact of eight services on the Long Range Plan and looked for potential economies within these services. SciMP prioritized these shipboard and shore-based services as either essential or useful to fulfilling the objectives of the Long Range Plan. SciMP found that while all basic services were considered essential or useful, it may be possible to make savings in specific areas of the program as summarized below:

1) Laboratories

First and foremost, SciMP believes that obtaining cores and providing the basic measurements necessary to characterize the cores is the most essential aspect of the program. Along these lines, SciMP looked at six laboratories on the ship (Chemistry/X-ray, Physical Properties, Core Description, Underway Geophysics, Paleomagnetics, and Paleontology). Equipment and services within the various laboratories were rated as essential or useful to the Long Range Plan. Appendix 98-2-6 contains the details of these evaluations. After detailed examination of the these laboratories SciMP came to the following consensus.

CONSENSUS 98-2-1
Having examined shipboard laboratory equipment and the importance of shipboard measurements to the LRP, SciMP considers most current equipment to be essential and sees few cost savings. Some savings can be made by deferral of capital upgrades, but this amount is not large as the need for equipment replacement in the near future is not significant. Furthermore, a reduction in shipboard laboratories or services is considered counterproductive because the savings are small considering the loss of primary data and its effect on the international scientific constituency.

2) Publications

SciMP believes that publications are an essential product of the program and the ODP-TAMU Publications department has responded well to changing priorities. Of the publications produced within ODPTAMU, SciMP feels the Initial Reports volume is essential as a record of the cruise and a description of the data and came to the following consensus:

CONSENSUS 98-2-2:
It is the consensus of SciMP that the following ranking of ODP publications best serves the goals of the Long Range Plan.

Ranking:
1. IR - essential
2. WWW publications - very useful but not essential
3. SR - useful but not essential

3) Information Services

Under the heading of Information Services, SciMP evaluated the following services: data capture, database maintenance, data migration, computers and computer networks, and core photography. Appendix 98-2-6 contains detailed information on some of these services with respect to their utility for fulfilling the Long Range Plan.

CONSENSUS 98-2-3:
SciMP believes that data capture is one of the most essential services of the Ocean Drilling Program. Maintenance of a relational database and data migration in the database are very useful but not essential to the success of the LRP.

Current core photographic services are essential until digital imaging becomes a suitable replacement.

Computers and networks are essential in collecting the primary data. Continued network and storage upgrades are essential to the success of the LRP.

4) Repositories

SciMP believes it is essential to provide a controlled environment for at least the short-term (~ 5 years) safe storage of ODP cores. ODP-TAMU studies have shown that the majority of sampling takes place within a few years of core collection. With this fact in mind, SciMP has come to the following consensus about the ODP/DSDP repositories:

CONSENSUS 98-2-4
SciMP has determined that of the four repositories one is essential and the three remaining are useful but not essential to the goals of the LRP.

5) Public Affairs

SciMP believes that it is important to keep the scientific community and general public informed about the results and advances of Ocean Drilling. However, SciMP is concerned with apparent redundancies in public affair services between JOI and TAMU/ODP.

RECOMMENDATION 98-2-9:
The SciMP suggests a consolidation of resources relating to public affairs.

6) Wireline Services

SciMP recognizes that down-hole logging is essential to the success of the LRP and feels that wireline services are currently a great strength of the program. The present level of logging is the minimum that must be maintained (See Appendix 98-2-6). Moreover, we feel that it would be in the best interest of the program to include more specialty tools in logging operations. Of concern to SciMP is that the current types of logs being acquired are quite basic for the infrastructure that currently exists.

RECOMMENDATION 98-2-10:

SciMP feels that the overall cost of logging operations is high in relation to the basic types of logs being routinely collected. Therefore, SciMP recommends that OPCOM request JOI to evaluate the cost efficiency of current wireline operations.

7) Drilling Services

SciMP has prioritized several large FY99 engineering projects in terms of the Long Range Plan (see Appendix 98-2-6). Most of these projects were viewed to be useful but not essential to the success of the LRP. Considering that engineering development is a significant portion of the budget, SciMP recommends the following:

RECOMMENDATION 98-2-11:
SciMP recommends OPCOM and TEDCOM evaluate the cost-benefit and feasibility of engineering projects to determine if they can be accomplished in a realistic time frame in order to benefit the LRP.

8) Personnel

It is the consensus of SciMP that the ratio of personnel to the scientific product produced by ODP is high.

RECOMMENDATION 98-2-12:
SciMP recommends that OPCOM advise JOI to initiate an evaluation of the present staffing throughout the ODP organization.

H. Proposed Logging Plans and Tool Deployments

Gerry Iturrino presented the proposed logging plans for Legs 182-186. They are as follows, with high priority additional deployments (shown in parentheses) dependent on availability and cost:

182-Standard, WST, GHMT
183-Standard, DLL (WST, upgrade DLL to ARI)
184-Standard, GHMT (add WST)
185-Standard, GLT (add ARI, GLT)
186-Standard, BHTV (add VSP/WST, ARI)

A discussion ensued about the utility of the WST for correlation of logging, core, and seismic data. The panel felt that the ability to correlate these data would be greatly improved by the standard use of the WST on each leg.

RECOMMENDATION 98-2-13:
SciMP recommends that the WST be a part of standard logging operations.

A discussion of the benefits of sequential drilling and logging for deep holes took place (See February 1998 SciMP meeting report and Section B:Update on Recommendations of this report for more background on this topic). BRG personnel believe that 700 m is a good depth to stop drilling and begin logging and asked if SciMP would make a recommendation

on this matter. The Panel was reluctant to make a recommendation for a specific depth to begin sequential logging. Panel members felt this should be a leg-by-leg or hole-by-hole decision. The options and time estimates for this style of logging/drilling should be fully explained in the BRG logging spreadsheet, to the co-chiefs during the pre-cruise meeting and to the scientific party at the beginning of a cruise.

BRG was asked how well their time calculation spreadsheet estimates for logging reflect reality. Do they have historic data to compare with their estimates? Dave Goldberg responded by saying he felt the estimates were quite conservative and, in general, time was gained instead of lost during logging operations.

I. Development of plans/protocols for periodic lab review

The panel discussed the development of plans/protocols that would allow a timely review of the labs and services under its purview. The overall goal is to be proactive and not reactive. In addition to the periodic review of the labs and services, the panel felt that a mechanism was needed to provide ODP-TAMU with timely advice between meetings. Wil Sager proposed that a watchdog report should be prepared for each meeting for a number of the laboratories and services. Some might be lengthy, others short.

The following laboratories and services would have regular reports:

*Laboratories
    -Core Description
    -Chemistry/X-ray
    -Physical Properties
    -Paleomagnetics
    -Underway Geophysics
    -Paleontology
    -Wireline/Downhole tools
*Publications
*Information service (including computers, networks, data migration)
*Curation

The following services would not be up for regular review but may become an agenda item if the need arises for policy decisions/advice in these areas:

*Repositories
*Public affairs
*Drilling services
*Personnel

A watchdog listserver/message board will be set up to post messages. Each laboratory or service will have a message board in which the ODP-TAMU lab working groups and SciMP watchdogs can discuss issues pertinent to the particular lab/service (see Appendix 98-2-7 for a list of the SciMP watchdogs and the ODP-TAMU liaison for each lab/service).

Issues that need the attention of the whole panel will be posted to the main listserver in order that all members and working groups will be notified on a timely basis. Issues that require additional expertise or policy decisions beyond what can be accomplished via the message-board discussions will become agenda items at the next meeting.

ACTION ITEM 98-2-3:
The Chair of SciMP will work with ODP-TAMU to set up the listserver-message board either at ODP-TAMU or at Florida State University.

J. Panel Membership rotations and liaison/watchdog selections to PPGs

1) Panel Member Rotation

Three US panel members, Joris Gieskes, Patty Fryer, and Wil Sager, will rotate off the panel at the end of this meeting. As a result of these rotations, the panel will lose expertise in (among other areas) Igneous Petrology, Inorganic Chemistry/X-ray, Paleomagnetism, and Geophysics.

Juergen Wohlenberg noted that his replacement in 1999 will be a paleomagnetist (Franz Heider). Thus the panel felt that a replacement with paleomagnetic experience was not a high priority at this time. After some discussion the panel members felt that the following areas of expertise should be pursued.

Igneous Petrology
Chemistry (CORK or biosphere expertise)
Industry - Geotechnical expertise

SciMP members offered several names as potential replacements (including Geoff Wheat, Jean Whelan, and Roland von Huene). Panel members will encourage others to submit applications.

ACTION ITEM 98-2-4:
The SciMP chair will write a letter to SCICOM/OPCOM chair expressing the SciMP's priorities for new member's areas of expertise.

CONSENSUS 98-2-5:
The SciMP wishes to thank Patty Fryer, Joris Gieskes, and Will Sager for their tireless efforts in helping to guide the Ocean Drilling Program. Their invaluable expertise will be sorely missed by this panel. We hope they will remain active in the Program in the years to come.

2) PPG/Panel Liaisons

The panel discussed the need for liaisons and watchdogs to various PPGs and Panels. The consensus was that SciMP (and the PPGS/Panels) would benefit from having liaisons on several of the PPGs/panels but only needed watchdogs at this point in time on other PPGs/Panels. The following liaisons and watchdogs were selected:

PPG Liaisons
Long-Term Observatories - Roger Morin
Deep Biosphere - Rick Murray or new panel member
Shallow Water Systems - Thomas Janecek
Gas Hydrates - New Panel Member or Rick Murray

PPG watchdogs
Ocean Lithosphere - Chris Macleod
Extreme Climates - New Member
Climate/Tectonic links - Dave Anderson

Panel Liaisons:
TEDCOM Liaison- Thomas Janecek

K. Update on PPGs

Saneatsu Saito first reported on the Long-Term Observatory (LTO) PPG meeting in Tokyo last March (See Appendix 98-2-8). Highlights of the LTO PPG report included the JAMSTEC development plan for long-term monitoring of the OD21 legacy holes, PPG endorsement of CORK science and engineering workshops, and PPG encouragement of SCICOM/OPCOM to establish legacy reentry holes (recommend remediation of Hole 808E).

Several SciMP issues resulted from Saito's presentation. Concern was expressed by the LTO PPG that PPG operational advice may be lost within SciMP's broad mandate. The PPG asked if they could go directly to OPCOM for advice. Susan Humphris noted that the PPGs report to the SSEPs not OPCOM. The LTO-PPG asked SciMP to identify and send a liaison to their next meeting (See section J. above -- a liaison has been selected).

Saito next reported on the progress of two aspects of the Deep Biosphere Research Group in Japan (see Appendix 98-2-8). The first project, funded by ODP-Japan, concerns detection and analyses of microbes in ground water and surficial submarine samples and microbes mixed with artificial sediment. The second project, funded by JAMSTEC and ODP-Japan, is evaluating mud contamination in cores. John Farrell expressed concern that there appears to be some potential overlap/redundancies with other funded biosphere projects and this work might best be done in conjunction with a PPG.

Kate Moran noted that a JOI/JAMSTEC agreement to share technology to improve coring and long-term monitoring will be signed next month.

Of concern to SciMP is the general lack of PPG reports, especially from the groups that will have specific equipment and service requirements (e.g., Deep Biosphere PPG). To remedy this lack of information, SciMP recommends:

Recommendation 98-2-14:
In order to provide advice on future scientific measurements programs generated in PPGs, it is essential that PPGs are directed to provide timely

reports on their meetings emphasizing, in particular, the potential needs of proposed scientific measurement programs.

L. Future Meeting time and location

The panel discussed the timing for the next SciMP meeting. The time window for the next meeting was found to be between mid-December (the Chair will be in Antarctica until that time) and mid-February (to allow enough time to get the meeting report into the SCICOM agenda). The panel decided that early to mid January 1999, would be the best time.

Several potential locations were discussed, including:

1) The TAMU conference facility in Houston (Jay Miller-Host)
2) Another Houston conference facility (Arthur Cheng-Host)
3) Florida State University (Thomas Janecek - Host)

As exploration of industry ties to ODP will be a major agenda item for the next meeting, either of the first two locations in Houston would allow the panel to take advantage of the close proximity of many different industry connections.

ACTION ITEM 98-2-5:
The SciMP chair will poll the panel shortly after meeting to finalize a date in January for the next SciMP meeting. The SciMP chair will work with Jay Miller and Arthur Cheng to determine a suitable location for the meeting.

M. Acknowledgements

The Scientific Measurements Panel wishes to thank Gerry Iturrino for hosting the meeting, for providing the excellent logistics that allowed for a very productive meeting, and the very nice reception at Lamont Hall. The panel extends special thanks to Ann Klaus (ODP-TAMU), Bill Mills (ODP-TAMU) and Kate Moran (JANUS SC) and Mary Reagan (LDEO-BRG). Their expertise and enthusiastic participation is greatly appreciated by the panel.