MANAGEMENT FORUM REPORT, NIKKO, JAPAN March 28-29, 2007

PARTICIPANTS

Asahiko Taira	CDEX
Dan Evans	ESO
Steve Bohlen	USIO
Noriyuki Suzuki	J-DESC
Christina Ravelo	USAC
Keir Becker	SPC
Susan Humphris	SASEC
Tom Janecek	IODP-MI
Hans Christian Larsen	IODP-MI
Yoichiro Otsuka	IODP-MI
Manik Talwani	IODP-MI

Observers

Catherine Mevel ECORD Kazuya Shukuri MEXT Pinxian Wang China

1. PREFACE

The Management Forum members, as noted in the list of participants are drawn from the various IODP entities. The purpose of the forum is to consider IODP issues from a common point of view that represents all the entities rather than the individual point of view of each entity. The forum acts as an advisory Task Force to the IODP-MI president. Opinions are expressed at the forum meeting and recommendations are made. However, the forum by itself has no implementing authority; the implementation is carried out by way of the Annual Program Plan after it has been approved by the Science Advisory Structure (SAS, the IODP-MI Board of Governors' and the Lead Agencies). In the interest of transparency, this report will be placed on the IODP website as are all IODP-MI Task Force reports.

2. INTRODUCTION

The availability of two drilling platforms, in addition to MSP operations, as of January 2008, presents IODP with an unprecedented opportunity for ocean scientific drilling. The scientific community continues to be heavily involved in both submitting proposals to address high priority science objectives, and in providing advice to the program through the Science Advisory Structure. Consequently, the Management Forum undertook the task of articulating the Vision and Mission for the IODP program to best describe the critical elements and attributes of the program.

At the same time, costs for operations and maintenance of drilling platforms have risen significantly, and it has become clear that funding is not adequate to carry out year-round operations of either the riser or the riserless vessel.

A major objective of this Management Forum was to consider ways of dealing with the fiscal reality and ways to increase funding. The Forum considered (i) finding increasing efficiencies to optimize operations within the current IODP system, (ii) examining services to identify those that are non-essential, and (iii) ways to seek external funding. An important consideration was that any external funding arrangements not impact the integrity of the IODP program.

While the fiscal reality will be challenging over the next few years, the opportunities presented by the combination of drilling platforms and their integrated use will allow IODP to address scientific objectives both at the cutting edge of seafloor exploration and of significant societal relevance. This report represents the discussions and thoughts of the Management Forum – any decision to implement any of the recommendations requires considerable more analyses and discussion.

3. IODP VISION AND MISSION

The Management Forum articulated the following IODP Mission and Vision:

Vision:

Through scientific ocean drilling, IODP explores the vast world under the ocean to solve the mysteries of Earth as a living and dynamic planet.

Mission:

- IODP deploys state-of-the-art ocean drilling technologies as the essential tool of discovery.
- IODP unifies the international research community to explore Earth as a system.
- IODP advances future research and discovery through dissemination of data and samples from global archives.
- IODP provides scientific context for global awareness of geohazards and environmental change.

4. STRATEGIC DIRECTIONS

4.1 Scientific Prioritization

With limited funding and a limited number of drilling legs available, prioritization of the scientific objectives of IODP becomes increasingly important. Such a prioritization represents a departure from the *Initial Science Plan* that identifies themes and initiatives with no prioritization. As a consequence, the Management Forum delineated a set of recommendations for consideration by the Science Advisory Structure.

Prioritization of IODP Science

- The scientific objectives of IODP should be prioritized and published in a revised *IODP Science Plan* currently planned by SASEC.
- Given that the timetable for a revised *IODP Science Plan* is currently that it be completed by the end of 2008, this prioritization should be completed and go into effect as soon as possible.
- SASEC should take the lead on this process, with input from the SAS and from a few, carefully chosen, individuals external to the program.

Selection of IODP Science

- IODP should drill the high priority science as defined by the revised *IODP Science Plan*.
- IODP should include projects at the cutting edge of exploratory science, and projects that may have societal benefit.
- When there are shortfalls in IODP operating funds, selecting IODP programs with the objective of maximizing IODP platform operating time is important, but cannot be the primary priority.

Proposal Process

- The prioritization should guide submission of new proposals and repackaging of old proposals, although the proposal process should be kept open with no restriction as to topic.
- The SSEP should apply more stringent criteria to selection or rejection of submitted proposals early in the process. Selection (or rejection) should be based on the realistic likelihood that the idea and the proposal represent a viable, and high priority, drilling project that will ultimately result in drilling expedition(s).

Externally Funded Projects

- There is a range of possible IODP collaborations with other organizations, so arrangements have to be negotiated on an individual basis.
- The boundary condition for collaboration is that the basic attributes and policies of IODP should be followed.
- There needs to be some flexibility in scheduling in order to attract external funds.

4.2 Optimizing Use of Reduced Budgets

The current funding scenario is insufficient to provide the transformative science that IODP must accomplish to be considered successful. Hence ways to increase efficiencies and reduce costs need to be considered.

Increased Efficiencies

One way to increase funds available for platform operations is to increase efficiency within the IODP program. IODP consists of many entities including the Funding Agencies, the CMO, the Implementing Organizations, the Science Advisory Structure and the Program Member offices, which must act in concert to conduct the sea-going operations that define program. This complex infrastructure was created based on the assumption of full year operations; since that is unlikely, it needs to be re-evaluated based on realistic estimates of ship time availability.

The over-riding question is "Are these organizations optimally-defined and staffed to conduct the business at hand?" Are there overlaps or redundancies in the system that could be eliminated without affecting the quality of science obtained by the program? If so, what are these overlaps/redundancies and how can they be eliminated?

The Management Forum recommends that the following areas should be examined with respect to possible increases in efficiency:

- IODP management and administration structure both numbers of people and process
- Overlaps in IO functions: e.g.

Data management,

Technical expertise

Tool use and development

Education and Outreach

SOC/POC – combine operations SOC/POC?

- SAS meeting structure (size and number of meetings)
- Proposal evaluation process

(The last two are currently also being addressed by SASEC and its working group on the SAS).

Reduction in Services

IODP provides numerous services to the community including pre-expedition planning (e.g., SAS review of proposals and advice on programs to conduct), shipboard operations (e.g., collecting cores, analyzing cores, wireline logging, etc.), and shore-based operations (publications, core archiving, education/outreach activities, etc). However, the budgetary reality facing us today dictates that we re-examine the levels and number of services. Clearly, some services are more essential than others. Can the removal of less-essential services provide significant cost savings that can be applied to operations? What priority

does the program place on each service? What are the ramifications of the removal of services?

The Management Forum recommends that the following services should be reviewed and prioritized to answer the questions above:

- Minimum shipboard measurements
- Technical support levels
- Engineering development
- Publications
- Data management
- Core curation
- Education
- Outreach
- Management and Administration

Timetable to Address Efficiency Increases and Service Reduction

The magnitude of the issues demands a thoughtful examination of the costs, benefits, risks, and ramifications associated with implementation of any option or suggestion. The CMO must lead this effort with appropriate input from the IOs and advice on prioritization of services from the Science Advisory Structure. Over the next few months, there are several scheduled meetings that provide a framework for discussion and feedback concerning various scenarios that could increase efficient or reduce costs. Full use of these opportunities will require cost-benefit analyses as well as risk assessment.

April 2007

April 25-27 IO/IODP-MI meeting to discuss FY2008 Annual Program Plan.

At this meeting, the group should create a plan and timetable to examine the adjustments necessary to deal with the new reality of ship operations and to

decide how to minimize cost and deliver science

June SASEC/BoG meetings – first opportunity for SASEC advice; BoG should

address how to examine Management and Administration

July-August IO/IODP-MI meeting – discussion of cost-benefit-risk analyses

Summer 07 SPC/SAS discussions of potential service reductions

Fall 07 Options and scenarios finalized and recommendations on how to proceed

January 08 SASEC review IODP-MI and IO recommendations

4.3 Securing External Funding

Presently available funding is not adequate to keep the riser and riserless drilling vessels in full time operations. However, it is very desirable to keep the vessels operating for as much of the year as possible in order to maintain quality of the vessels and drilling operations. Consequently, all IODP entities should vigorously explore sources of outside funding.

There are two kinds of avenues that exist for external funding for times when the vessels are not being used in the regular IODP program mode:

- i. IODP is not involved in the funding arrangement the expedition is fully funded by an external source. However, scheduling and logistics are coordinated with IODP.
- ii. In a "hybrid mode", IODP entities will be principally involved in securing funding from outside sources such as other agencies from IODP member countries, other governments, industry, etc.

If a "hybrid" arrangement is being considered, the preferred criteria for such arrangements are:

- a. A confluence of objectives between IODP and the outside entity
- b. An open sample, data, and publication policy
- c. Joint shipboard parties

Each arrangement that involves sharing of funding will have to obtain the approval of Lead Agencies, the agreement of relevant the IO, and the project will be reviewed by the Science Advisory Structure. The scientific community should be kept fully informed of this new development in funding sources, which will only be possible with help and support of the community.

It is clear that the spectrum of possible funding options to augment IODP budgets and increase utilization of the vessels needs to be examined in considerably more detail. The first step in this is for IODP-MI to develop draft principles/guidelines that can provide the basis for discussions by the SAS and the funding agencies.