BUDGET COMMITTEE REPORT

8-10 March 1993, Washington, DC

1. The Budget Committee met at JOI Inc., Washington, DC on 8 - 10 March 1993. Members present were James Briden (Chair), James Austin, Yves Lancelot, Brian Lewis and Bruce Rosendahl. Tom Pyle and Ellen Kappel (JOI) attended. Phil Rabinowitz, Tim Francis and Rick McPherson (TAMU) and David Goldberg and Katherine Rodway (LDEO) attended for part of the meeting.

2. BACKGROUND

2.1 Budget targets

On directives from NSF, BCOM based its analysis and resulting recommendations on two alternative sets of target budget figures.

Alternative A assumes 6 partners and a budget of $44.9 M, (i.e., that CAN-AUS membership continues as is).

Alternative B assumes 5 partners and a budget of $41.9M.

It was noted that the NSF budget for FY 1994 was not yet firm and that the 6 partner scenario is well below the Long Range Plan (LRP) target. The following table shows the LRP and 6-partner profiles from the 4-year plan developed by BCOM in January 1992, and the revised projections as of March 1993.

($M)	FY93	FY94	FY95	FY96
LRP profile	45.3	48.3	50.9	52.9
6 partner profile 1992	43.2	45.4	48.0	50.0
6 partner profile 1993	43.2	44.9		
5 partners		41.9		

In the 1992 BCOM report it was stressed that the LRP target figures were realistic if goals were to be met with a program of a quality and innovation that the partners would support, and that some erosion of infrastructure would occur at the lower figures. In this report this fear is realized.

2.2 The FY1994-1998 phase and "internationalization" of ODP

FY1994 is the first year of the second phase of ODP and BCOM noted that continuation beyond FY1998 is going to depend on scientific successes between now and FY1995-6, when program reviews will begin in earnest. In this renewal phase TAMU will continue as Science Operator, LDEO (with assistance from CRNS in France and U. Leicester in U.K.) will operate wireline logging services, and the JOIDES Office will be outside the USA for the first time. Vital upgrades in data collection and databasing on the ship and ashore have been put up for international bid, and the East Coast Core Repository is also in the process of international bidding. These welcome modifications to the program were initiated by EXCOM, but they would entail cost increases.

2.3 FY1994 Science program

The science program for FY1994 covers a wide range of science and innovative approaches. In particular, the plan includes drilling into an active (unsedimented) hydrothermal system, "CORKing" and instrumentation of holes to measure long-term fluid flow in an accretionary wedge, use of an offset drilling strategy to study fundamental igneous processes, the first sea test of the DCS system with a rigorously designed and land-tested secondary heave compensation system, and use of specialized coring and drilling methods to study objectives relating to ocean history and sedimentary processes. Inevitably, the use of innovative methods to solve the science problems is expensive. Many of these drilling legs will use costly special equipment requiring transportation and installation, examples being CORKs, bottom hole assemblies and the DCS system.

2.4. BCOM approach

BCOM noted with concern that with the present budget scenarios, the divergence between program goals and actual funding will deteriorate in future years. Therefore, BCOM recommends a dual strategy:

- Short term
  - Maintain cutting edge science and innovation.
  - Tighten base budgets as far as possible, using efficiency and performance improvement to effect savings.

- Long term
  - Apply concerted effort to find new funds or new structures that will result in new funds.
  - Rewrite the science objectives to be more consistent with reality. The Long Range Plan has served a purpose, but is no longer a realistic template for science prioritization. Recent emphasis on use of rewritten thematic white papers is encouraged.
  - If new funds are not forthcoming, then devise a slimmed-down operation with constrained science goals.

SOE did not seem to be a very useful concept at this meeting (with the climate of budget shortfalls), so the term "innovation" was stressed instead.

3. PROPOSALS TO BCOM

3.1 The draft budgets proposed to BCOM were (with FY93 Program Plan for comparison):-

	FY94 Proposed $	FY93 Program Plan $
TAMU	40,709,000	37,016,447
LDEO	5,685,888	4,621,000
JOI/JOIDES	2,001,324	1,560,000
TOTAL:	48,396,212	43,197,447

The bids were therefore approximately $4.5 M above the target budget for FY94, which itself may not be attained due to uncertainty in the CAN-AUS membership. The key contributions to this excess of demand over budget were:

- the enhanced logging and related deliverables proposed by LDEO and its partners in their successful response to RFP 92-2;
- the computing/databasing upgrade project;
- technical demands for difficult legs and engineering developments for the future;
- public relations (PR) initiatives known to be highly desirable;
- approximately 4% growth in salaries and related costs.

3.2 Following preparatory Private Session, presentations were made by TAMU, LDEO and JOI. BCOM next held a further Private Session to reach interim conclusions. These were then presented to the subcontractors and discussed with them. BCOM then proceeded to finalize this report.

4. RECOMMENDATIONS RELATIVE TO $44.9 M BUDGET

4.1 BCOM's summary recommendation is as follows (details and rationale are given in subsequent paragraphs):-

	Proposed $	Recommended $
TAMU Base	37,256,164	36,420,000
Innovation[1]	3,452,836	2,020,000
LDEO Base	5,153,213	4,500,000
Innovation[1]	532,675	300,000 [2]
JOI/JOIDES Innovation[1]	2,001,324 [3]	1,660,000
TOTALS	48,396,212	44,900,000

[1] In its recommendations, BCOM discontinued the use of the term Special Operating Expenses (SOE) that has been used in recent years in favor of "Innovation", which more accurately portrays the intent. It is recognized that this description has been interpreted elastically!

[2] As described in section 4.3, BCOM was unable to recommend funding of any of LDEO's proposed SOEs but, in making its recommendation, wished to emphasize the innovation content of LDEO's base proposal.

[3] The JOI proposal contained at least $96K of "innovation" concerning PR which BCOM was unable to recommend supporting due to the severe financial constraint on the operating program (see section 4.4).

4.2 TAMU

Following their policy of recent years, TAMU proposed a budget of which they identified 8.5% as SOE.

SCIENCE OPERATOR FY94 PROPOSED BUDGET OUTLINE

	Base $	SOE $
Headquarters/Admin	2,049,153	100,000
Science Services	3,235,955	227,836
Drilling/Engineering	4,029,400	1,250,000
Technical & Logistics	4,548,590	100,000
Science Operations	1,030,361	300,000
Information Services	1,132,017	1,425,000
Ship Operations	21,230,688	50,000
TOTAL	37,256,164	3,452,836
GRAND TOTAL	$40,709,000	

Base Budget

The contractors and the advisory structure, as represented at the meeting, were unanimous that it was imperative to maintain maximum innovation in the program despite evident severe financial constraint. BCOM therefore investigated base budgets thoroughly and in the case of TAMU, recommended that approximately $850K of savings must be achieved. TAMU and JOI must tackle this speedily, because PCOM in April will need to address the consequences. BCOM advises that particular attention should be directed at:

- capping publication costs close to FY93 level, for example by imposing new disciplines on authors, as has recently been discussed at Panel level;
- minimizing the cost increase at the East Coast Repository;
- examining costs in the "Engineering Development" budget line;
- negotiating economies with UDI, for example on air travel.

But TAMU will have to scrutinize their operation across-the-board. Staffing economies are likely to be inevitable. TAMU should seek to preserve, as much as possible, areas that have recently been strengthened in response to JOIDES recommendations (e.g., technical staffing aboard the drillship).

Innovation

The major innovatory or special expenditures proposed by TAMU were expressed in their SOE proposals. As stated already, BCOM responded to the unanimous view of all present that innovation should be maintained to maximum extent, and considered these items line by line:

	Proposed $	Recommended $
DCS Leg 157 trial	690,000	690,000
DCS Leg 157 shipping	100,000	100,000
Computing/databasing project	1,425,000	600,000
Drilling Supplies	560,000	560,000
Shipboard Science Equipment	300,000	70,000
Publications Equipment	188,000	-
Public Relations (Exhibits)	100,000	-
Bar-coding	40,000	-
Dry-dock preparation	50,000	-
TOTAL	3,453,000	2,020,000

BCOM's view was that since the Leg 157 DCS test is make-or-break for this large, expensive project, funding provision should be made in full. It took the same view on Drilling Supplies that were judged essential for Legs 153, 156 and 158; TAMU recognized that, as planning progressed, some savings may be possible which BCOM recommended may be used to mitigate cutbacks in the TAMU base budget.

The computing/databasing project must go ahead and BCOM allocated as much as was available to start implementation.

With additional approval of the "Real Time Navigation" request (up to $70 K), which seems to have wide support from shipboard parties and JOIDES panels, the amount that BCOM could allocate to special items was exhausted.

Therefore, the following requests remain unfunded:

- exhibits to publicize ODP in member countries;
- equipment for publications branch which BCOM regarded as premature in relation to the computing/databasing project and revision of publication policies;
- shipboard science equipment and a bar-coding system for cores and inventory; and
- dry-dock preparation.

4.3 LDEO

The LDEO budget was presented as a response to an RFP (92-2) issued by JOI Inc. for a new contract for wireline services. BCOM recognized that this proposal called for a new approach, and that the corresponding Statement Of Work included new developments both in technological and managerial approaches. The result was an ambitious proposal emphasizing the usage of new and better tools as well as an international dimension.

WIRELINE SERVICES OPERATOR PROPOSED BUDGET FOR FY94

	$
LDEO Base budget	1,703,138
Schlumberger subcontract	2,421,861
BHTV subcontract	25,000
Rockworks subcontract	56,495
CNRS-LGQ/IMT subcontract	349,949
Univ. Leicester subcontract	349,989
Overhead costs	66,250
Tool insurance	180,530
On-line data base	177,505
Engineering Development Centre	355,170
TOTAL	5,685,887

LDEO Base Budget

Because of the nature of the RFP and the response of LDEO, this budget does not separate the "innovative" aspects from the base budget. Nevertheless, BCOM tried to estimate, from the description of various tasks and tools, what would be considered "base" and what "innovation".

In the Schlumberger subcontract, BCOM noted that the "Back-off and Severing" service previously under TAMU's responsibility was now included in the LDEO contract. BCOM referred the issue to JOI for resolution. The inclusion of MAXIS in the new contract is recognized as an essential part of the new approach for improving the quality of the logs as well as for data handling. Among the other subcontracts, the Borehole Televiewer (BHTV) appears to be used only for special projects and is judged to be of limited usage at this time. BCOM recommends that this subcontract be terminated. The creation of two European specialized processing centers is a positive step toward internationalization of operations and will allow tapping of new resources, both human and technical.

Because of funding pressure, the base budget was capped at $4.8 M. Noting the addition of new personnel in the two European centers, BCOM recommended that the base budget be reexamined thoroughly, with special attention to possible reductions in staffing at LDEO.

Although recognizing the enhancement of capabilities brought to the program by the choice of logging tools included in the Schlumberger subcontract, BCOM nevertheless recommended that LDEO scrutinize that subcontract in order to save approximately $100K.

Innovations

BCOM was impressed by the innovative content in the Schlumberger subcontract, and the separation of $300K in the table in section 4.1 reflects this.

Enhancements for on-line databasing and an Engineering Development Center that JOI had requested in the RFP could not be funded. Nevertheless, BCOM recommended that LDEO seek ways to integrate logging data handling, both shipboard and shorebased, with the new data handling system to be developed at TAMU for core data. This aspect is considered an essential step toward efficient core-log data integration.

4.4 JOI/JOIDES

	Proposed $	Recommended $
JOI	770,085	621,000*
G&A	361,188	298,000
JOIDES Advisory Services		
Office	370,673	360,000
Travel	45,000	45,000
Journal	58,000	40,000
Panel Chair Support	125,000	25,000
Data Bank	271,378	271,000
TOTAL	$2,001,324	$1,660,000

* includes $50,000 for PEC-IV, but see below

JOI had asked for several PR enhancements, in line with recent EXCOM discussion and its endorsement of PEC-III recommendations. While recognizing the potential value of these enhancements, BCOM declined to include any of them, in order to maintain the focus on both scientific and engineering innovation, and preservation of the FY94 Program Plan.

Although JOI requested an appropriation for establishment and support of PEC-IV, BCOM suggested that JOI negotiate with NSF for a delay, in order to give recent program developments (e.g., the new LDEO logging contract, the JOIDES Office move to the U.K., and the JOIDES Advisory Structure Review Committee report) time for proper integration into ODP.

BCOM referred the issue of salary support of thematic panel chairs to national funding agencies.

BCOM suggested that production of a new "Guide to the Ocean Drilling Program" be incorporated into a "normal" 3-issue year of *JOIDES Journal* production.

5. IMPLICATIONS OF BUDGET REDUCTION TO $41.9 M

Following discussion with subcontractors on scenarios for reaching the upper level target figure of $44.9M provided by NSF, BCOM went on to consider the alternative target of $41.9M, necessitated by potential absence of the CAN-AUS contribution from ODP for FY94. BCOM noted that the lower figure represented a shortfall of $6.4M from the budget level projected in the LRP. There are various options, but certain immediate consequences are inevitable, even if this is only a one year cut:

- revision of the Science Plan to more limited objectives;
- reduction or elimination of technical innovation;
- a further cycle of evaluation among PCOM, BCOM and probably EXCOM in a matter of weeks.

One example would include:

- deletion of all ODP-TAMU SOE's for FY94 ($2.02M);
- re-review of the FY94 Program Plan by the JOIDES Advisory Structure, with a view to modifications narrowing the scope of the proposed science, probably focusing on those legs not impacted by SOE deletion (above) - e.g., 154-Ceara Rise, 155-Amazon Fan;
- emphasis on data acquisition throughout all coring and logging aspects of ODP, at the expense of all aspects of processing, interpretation and information dissemination.

BCOM emphasizes the mid- and-longer term deleterious and potentially fatal impact that such a budget reduction would have on ODP.

6. LONG TERM ISSUES

It was evident to BCOM that budgetary projections contained in the Long-Range Plan have become obsolete under the revenue scenarios which now seem to prevail. Either the Long-Range Plan should be reformulated or there need to be radical changes made to the overall funding or operation of the drilling program.

There are two main parts to the problem. The first pertains to a growing gap between the needs and expectations of the science that drives ODP and the financial resources that will apparently be available. BCOM unanimously agrees that innovation associated with new science and technology is essential to the health and welfare of ODP, now and into the future. It must be emphasized that the cuts

reported here are occurring at a time when scientific and technological innovations should be advancing. In spite of these cuts, BCOM believes that the basic FY1994 science plan has been preserved by insisting on base-budget reductions, while retaining as much innovative expenditure as possible. **Such an approach cannot be continued** in subsequent years without detrimental and possibly irreversible consequences to ODP.

The second part of the problem is lack of revenue, which has not kept pace with even the most conservative expectations. The problem has been exacerbated this year by the CAN-AUS dilemma, but is a chronic one relating to continued lack of new partners. A renewed, vigorous effort to attract new partners is essential if vitality of the Program is to be maintained. EXCOM members must apply some innovative thinking to this problem and PCOM scientists are urged to assist in the process. The standard approach of simply soliciting new partners either is not working or is not being pursued with enough vigor. It has been assumed that significantly increasing membership dues is not a viable option for increasing the overall budget and could, in fact, have the opposite effect. This assumption should be reviewed.

Data management and networking, both within and between shorebased facilities and the drillship, and between TAMU and LDEO, are long-term issues. There is a consensus that progress must be made in these regards. Sliding toward the backwaters of data management in an age when technology for innovation is advancing rapidly, is not appropriate for a high-visibility, international project such as ODP.

The Diamond Coring System appears to have reached the do-or-die stage, both operationally and financially. The consequence of continuing the DCS program if land and sea tests are successful will be increased budgetary pressure for additional development and deployments. A successful DCS program probably means increased expenditures in the future, and budgets need to anticipate these expenditures.

Another example is the growing budgetary problem in regard to burgeoning publication. The root cause appears to be increased page numbers arising in part from increased scientific productivity. Page limits on manuscripts, and limits on the number of manuscripts, need to be considered by PCOM and other panels before this problem gets out of hand. The use of computer disc technology to replace and/or augment certain aspects of volume presentation also needs to be examined.

If revenues cannot be increased to reduce significantly the gap between science plans and fiscal resources in subsequent years, then consideration will have to be given to reformulating science plans. The key issue is, of course, defining a viable, justifiable, ongoing science program that matches financial resources. It is not the purview of BCOM to specify whether this means focusing on particular objectives in order to achieve "selective excellence". **But it is clear that the future of the Program will be jeopardized if a "business-as-usual" stance is maintained.**

7. ACTION

BCOM requests JOI to complete discussions with the subcontractors, compatible with the recommendations in this report, by mid-April so that the JOIDES advisory structure can consider the consequences beginning at PCOM 26 April 1993. This is essential for timely completion of the FY94 Program Plan. This and the longer term issues raised in this report should be addressed at the EXCOM and ODP Council meetings in June 1993.

Washington, DC
16 March 1993

Appendix 1

BUDGET COMMITTEE
8 - 10 MARCH 1993

AGENDA

(Preparation)		DAY 1
1 (O)	Introduction; approval of agenda	
2 (P)	Identification of Major Issues	
	(a) Review of report of 1992 BCOM, and update	
	(b) JOI advice	
(Presentations from subcontractors/contractor)		
3	TAMU	
4	LDEO	
5	JOI/JOIDES	
(Conclusions and preparation of report)		DAY 2
6 (P)	Private Session: Initial Conclusions	
7 (O)	Discussion with operators	
8 (P)	Preparation of report	
9	Editing and finalization	DAY 3 a.m.

Items O are open to all subcontractors

Items P are BCOM private sessions

Items 3 - 5 are for BCOM with each presenter in turn.