

BUDGET COMMITTEE REPORT

17 AND 18 JANUARY 1992

BONN, GERMANY

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1. The Budget Committee met in Bonn, Germany on 17 and 18 ^{Ans'd.} January 1992. Members present were James Briden as Chair, Hans Durbaum, Arthur Nowell, Brian Lewis and James Austin. Tom Pyle and James Baker (JOI) attended; Philip Rabinowitz and Jack Baldauf (TAMU) and Roger Anderson (LDGO) were present for part of the time.

2. BACKGROUND

2.1 The Budget Committee (BCOM) was called to meet earlier than usual in the annual financial cycle because of deadlines imposed by NSF for receipt of a 4-year plan for renewal in USA. Its ability to address the years beyond FY 1993 was limited because the Science Plan for those years had not been completed due to the tight schedule. Uncertainty was compounded by doubt about the number of non-US members.

On NSF advice, BCOM operated using two alternative sets of Planning Figures:

- (a) from the Long Range Plan (LRP), except that the figure for FY 96 was uprated by 4% on FY 95.
- (b) a lower profile corresponding to six non-US members.

Both scenarios were based on an international subscription of approximately \$2.9M per non-US partner from FY 94.

	FY93	FY94	FY95	FY96
LRP profile	45.3	48.3	50.9	52.9
Lower profile	43.2	45.4	48.0	50.0

2.2 Last year BCOM envisaged having also to consider a 'rundown' scenario of non-renewal of ODP beyond September 1993. In the event BCOM was advised by NSF that this was sufficiently unlikely that planning for operational rundown was not necessary. NSF has a contingency to handle the contractual consequences of shutdown, over a 12 month period. In this emergency situation, ODP Council and EXCOM would be reconvened. BCOM did not consider this scenario further in its meeting.

2.3 BCOM pays particular attention to efforts to advance drilling capability, core recovery and logging. The JOIDES Advisory Structure has indicated in recent years that to accelerate such developments at the rate necessary to address important problems requires allocations substantially greater than the 4% minimum Special Operating Expenses (SOE) set by EXCOM.

2.4 The addition of Russia as a member, together with enhancement of the US contribution, should have raised the ODP budget to LRP level in FY 92 for the first time, enabling important and exciting developments such as accelerated work on the Diamond Coring System (DCS), feasibility studies on deep drilling and additional platforms, and high-temperature

slimhole tool developments. At the time of the BCOM meeting, the Russian subscription from 1 January 1993 had not been received and opportunities such as these were 'on hold', to the frustration of PCOM and the ODP science community. The lower income profile for FY 93 and 94 is close to the minimum acceptable level calculated by BCOM in 1991, but will not allow substantial technical development.

3. PROPOSALS TO BCOM

- 3.1 The draft budgets proposed to BCOM (after withdrawal of an additional proposal from LDGO that was deemed to fall outside current guidelines) were (with FY 92 Program Plan for comparison):-

	FY93 proposal	FY92 Program Plan	
TAMU	\$39,384,447	\$35,805,000	+10.0%
LDGO	\$ 4,996,593	\$ 3,950,000*	+26.5%
JOI/JOIDES	\$ 1,573,164	\$ 1,450,000	+ 8.5%
MRC	nil	\$ 70,000	-
Unallocated SOE	nil	\$ 125,000*	-
NSF enhancement (held in reserve)	N/A	\$ 2,100,000	-
Total	\$45,954,204	\$43,500,000	+ 5.6%

*most of the unallocated SOE is likely to be allocated to LDGO.

The bids were thus \$654k above the higher (LRP) projected income. BCOM therefore had to determine reductions of that amount and also prepare contingency plans to reduce expenditure by a further \$2.1M to the lower income level.

- 3.2 Following preparatory Private Session, presentations were made by TAMU, LDGO, JOI and the University of Washington JOIDES Office. TAMU and LDGO representatives attended only for presentation and initial discussion of their item; Nowell and Lewis withdrew for determination of the JOIDES Office allocation.

4. RECOMMENDATIONS

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

	PROPOSED	LRP Budget	RECOMMENDED
	\$k	\$k	Lower Budget
			\$k
TAMU: Base	35,671	35,521 ¹	
SOE	3,713	2,413 ²	-1700 ⁴
LDGO: Base	4,341	4,320 ¹	
SOE	656	301	
JOI/JOIDES	1,573	1,560 ¹	
Held back for further consideration		1,185 ³	- 400 ⁴
Total	45,954	45,300	43,200

¹ Cuts of \$150k, \$21k and \$13k in TAMU, LDGO and JOI/JOIDES base budgets are arbitrary, to 'balance the budget'

² \$1300k bid for iceboat is treated separately, see note ³ below

³ Slightly reduced provision for iceboat: held by JOI pending best contract. In the event of savings, surplus to be allocated to deep drilling, or Lamont processing backlog, subject to advice to JOI.

⁴ See section 4.5

4.2 TAMU

The representatives from TAMU are to be congratulated for their well-organised presentation to BCOM, and for their realistic budget requests following JOI's direction. The FY 93 request of \$39.4M included \$3.71M of SOEs.

SCIENCE OPERATOR FY 93 PROPOSED BUDGET OUTLINE

	Base	SOE
Headquarters Administration	\$1,979,722	
Science Services	\$3,596,854	\$ 388,000
Drilling & Engineering	\$3,894,316	\$1,600,000
Technical & Logistics	\$4,398,273	\$ 172,400
Science Operations	\$1,251,882	\$ 253,000
Ship Operations	\$20,550,000	\$1,300,000
TOTAL	\$35,671,047	\$3,713,400
GRAND TOTAL		\$39,384,447

Base Budget

During cursory review of the Base Budget outlines for FY 93 for each TAMU cost centre, BCOM noted that TAMU had only partially acted on PCOM's directive concerning increased computer and technical personnel on the ship. Moreover this had been achieved at the cost of ending some shipboard job-sharing with LDGO for FMS processing. TAMU and LDGO must solve this problem (see section 4.3). TAMU's achievement in bringing publications fully up to schedule is commended: relevant budgets are maintained in order that this achievement be continued. However, due to overall budgetary constraints, BCOM calls upon TAMU to make \$150k savings from its proposed base-budget.

Special Operating Expenses

The SOEs presented to BCOM were logically arranged into two groups - those deemed absolutely necessary to fulfil the FY 93 science plan, and those suggested as beneficial for the continued success of ODP. Only a single \$ number was presented for each of the SOEs and BCOM suggested that in future some detail be made available. BCOM recommends that, if the LRP budget level for ODP is maintained at \$45.3M, funding for all TAMUs SOEs be provided at the requested level except for the Ice Patrol Boat, for which special arrangement is made below. The requests and recommendations, together with conditions attached to them, are as follows:-

	PROPOSED	RECOMMENDED	
		(LRP budget)	(Lower budget)
DCS Phase II B	\$500.0k	\$500.0k	\$500.0k
DCS Shipping	\$172.4k	\$172.4k	\$172.4k
East Coast Repository	\$ 38.0k	\$ 38.0k	\$ 38.0k
Computer Services	\$350.0k)	603.0k, subject)	
Shipboard Science)	to further advice)	NIL
Equipment	\$253.0k)	from PCOM)	
DCS Phase III	\$1100.0k	\$1100.0k	NIL, unless
		NB. TAMU has	savings
		to receive	can be made
		sanction from	elsewhere, see
		JOI before	para 4.5
		incurring	
		expenditure on	
		fabrication	
Ice Boat	\$1300.0k	\$1185k provision, to be held by	
		JOI	
		pending best contract. In the	

event of savings, surplus to be allocated to deep drilling or Lamont-processing backlog subject to advice to JOI from JOIDES.

While an ice boat is certainly required, BCOM insists that TAMU look most carefully at costs from different potential operators, including European academic and commercial operators, and also the possibility of Russian ice vessels. BCOM views this as an area where significant savings might be made. It therefore makes provision of \$1185k (somewhat less than requested) and recommends that JOI holds this allocation pending negotiation by TAMU of the best possible contract. Should savings occur, BCOM recommends that the savings be used for other TAMU and/or LDGO SOEs. BCOM regarded the requested amount for Computer Services and Shipboard Science Equipment as provisional, pending further advice from PCOM.

In the event that a lower budget for the program of \$43.2M is imposed, BCOM recommends that only the four top-rated SOE items (DCS II B, DCS shipping, East Coast repository and ice boat) be funded. Further, all base budgets, including engineering development on all tools and systems, should be evaluated and prioritized to ensure that the FY 93 program is not jeopardised.

FY 94 - 96

TAMU presented budgets roughly in line with projected increases in the higher (LRP) budget profile. BCOM comments on these in Section 5. Demands on truly special operating expenses are likely to increase, so phased replacement of ageing drillpipe should henceforth be dealt with as far as possible within base budget.

An impending major issue concerns core repositories. It is clear that within approximately one year, both Gulf Coast and East Coast repositories will be approaching capacity and there will be a need for additional storage buildings. Capital costs should be a matter for host institutions, but EXCOM will need to press the case for new construction to be undertaken and should make increased provision for running costs.

4.3 LDGO

BCOM heard a report from Roger Anderson (LDGO), concentrating primarily on the FY 93 program and proposing the budget summarised below. In consultation with Anderson, BCOM defined the FY 93 base budget as \$4,340,868 based on a negotiated 1-year extension of a previously applied Columbia University overhead rate of 42%; BCOM recommended \$4320k (see para 4.1, footnote 1).

WIRELINE SERVICES OPERATOR FY 93 PROPOSED BUDGET OUTLINE

	Base	SOE
LDGO personnel and operations	\$2,037,491	
Schlumberger contract	\$1,851,384	\$470,705
Televiewer lease	\$ 105,000	
Tool insurance through JOI	\$ 148,665	
FMS etc	\$ 117,208	
Rockworks subcontract	\$ 81,130	
Camborne subcontract	-	\$185,020
Total	\$4,340,868	\$655,725

Base Budget

BCOM notes that the LDGO base budget increased by 9.9% from FY 92, a reflection primarily of increased personnel and material costs (notably an increase of 10 man-months for putting LDGO log data onto a digital data base at LDGO and related software on CD-ROM).

Anderson informed BCOM that he was considering a number of options for FMS processing. BCOM concluded that shipboard processing is highly desirable; recognising that new personnel will need to be recruited and/or trained, this budget-line request was recommended in full and LDGO should negotiate with TAMU to achieve the requirement.

Special Operating Expenses

	PROPOSED	RECOMMENDED
<u>LDGO</u>		
1. Schlumberger contract		
- MAXIS:	\$ 155k	----
- processing nodes (LDGO, France, UK):	\$ 200k	----
- new logging winch:	\$ 116k	\$ 116k
2. Camborne School of Mines (UK)/resistivity tool:	\$ 185k	\$ 185k
	<u>Total</u>	<u>SOE</u>
		\$ 301k

While rejecting the SOE bid for three processing nodes, BCOM noted that the case was based partly on the accrual of a backlog in processing various types of logging data. LDGO is called upon to address this issue as far as possible within its allocated base budget. The possibility of bidding for some enhancement of this SOE, if savings are made elsewhere in ODP, is noted in this report (see TAMU - SOEs).

FY 94 - FY 96

Subsequent BCOM discussions with Anderson established that a 4% inflation rider on the FY 93 total was a reasonable basis for planning the continuation of the logging operation on its current lines.

Nonetheless, BCOM notes with great concern the impending overhead increase at Columbia University for FY 94 - FY 96, and the fact that both permanent equipment acquisition and data base expansion are inevitable during this interval if LDGO is to maintain an acceptable level of service to the scientific community. These facts will make increases to Wireline Services necessary, well in excess of the totals listed above.

4.4 JOI/JOIDES

	PROPOSED	RECOMMENDED
JOI	\$561,739)	
G + A	\$281,967)	\$840k
JOIDES Office	\$457,569	\$450k
ODP Data Bank	\$271,889	\$270k
<u>Total</u>	<u>\$1,573,164</u>	<u>\$1560k</u>

The JOI and JOIDES budgets were approved subject to rounding-down for balancing purposes.

In the JOI presentation, it was noted that there will be a reduction of one half FTE in the JOI Office beginning 1 October 1992, thus the subtotal for this office could be kept nearly constant. The PEC III travelling activities and costs were much higher than those of former PECs; costs of future PECs should be constrained to a level similar to PEC II.

For JOIDES the Committee acknowledged that the workload of the Chairperson of PCOM exceeds 9 months per year and, therefore, the 9-month proposal for Brian Lewis should be accepted.

BCOM noted that EXCOMs agreement to pay travelling costs for the ad hoc Committee on sub contracts chaired by Craig Dorman from comingled funds should not be taken as a precedent.

4.5 LOWER FUNDING LEVEL FOR FY 93

At the risk of repetition we should emphasise that BCOM's recommendation in the event of cutback to \$43.2M in FY 93 is to maintain the scientific program Plan for that year. Hence BCOM calls for a scrutiny of all Base Budgets, particularly Engineering Development and other 'forward planning' tasks, to achieve economies in excess of \$400k. BCOM recommends that shipboard scientific equipment and computing upgrades, and DCS Phase III be halted, but that DCS be carried forward at a lower level should savings permit. The 'short-term'ism of this approach is emphasised at the end of this report.

5. LONG TERM BUDGET ISSUES: 1994 AND BEYOND

In the Long Range Plan, which served as the justification for ODP from 1993 onwards, costs were estimated on the basis of 1989 costs, plus an inflation factor. These estimated costs are now the target budget and it is appropriate to ask to what extent these estimates are still valid. In the 1993 program, it appears that the target of \$45.3M is just adequate to meet the science and engineering goals. This highlights the importance of maintaining the recent increment in US funding. Any reduction in funding implies a reduction in science and engineering. BCOM urges all partners, US and non-US, to consider their ability to augment their subscription to ODP, to offset the effect that loss of a seventh non-US member would have on the Program.

For 1994 and beyond, there are a number of factors which seem to suggest that the target figures (which assume 7 international partners) are on the low side. Some of these variables are:

1. Knowledge of a detailed drilling program. The JOIDES planning process will only produce a detailed 1994 plan at the end of 1992 and will follow a similar pattern in succeeding years. As the detailed drilling plans mature there is the possibility that science requirements may stress the system e.g. ice boats, guidebases and, particularly, additional platforms.
2. The role of the DCS in the 1994 - 96 time period, and the engineering development costs needed to make it an operational system, are not firmly founded.
3. The costs of engineering developments related to the DCS (such as slimhole logging) and of other engineering costs are not well known.

4. Core repositories: by the end of 1992 the TAMU core repository will be full, and by the end of 1993 the LDGO facility will be in a similar situation. Costs related to expansion of the repositories (or building new ones) have not been identified.
5. Computing: the computer system on the Resolution was state-of-the-art when it was acquired in the mid-80's. It is now inadequate and no longer compatible with much user software. An upgrade will be necessary in the near future and this upgrade may well include bi-directional data telemetry to land. This conversion will be costly in hardware, manpower and time.
6. The user base: ODP to date has been remarkably successful. One yardstick of this success has been the increase in users of data from logs and cores. This has placed unforeseen demands on the suppliers of these data and an increasing manpower stress on LDGO and TAMU. Yet this is an area where expansion is necessary. Modern day computer communications, data analysis and data access offer a way of improving user access but there is, of course, a cost implication of uncertain size.
7. Although the program for 1994 and beyond, as well as the 1993 program, is based on an assumption about renewal by the members of the ODP, the level of renewal is not assured. This is another variable with a potentially devastating impact.

In summary, the issue is the minimum funding level for maintaining a viable and justifiable science program. Items such as DCS, computers, core repositories, data distribution and access, and engineering development are the subject of discussion by the JOIDES advisory structure. As JOIDES advice is received in these areas, the budget implications must be analyzed in a timely fashion so that appropriate actions and recommendations can be invoked by EXCOM.

It is important to realise that the cutbacks recommended by BCOM in this report, in the event of a reduction from \$45.3M to \$43.2M in FY 93, represent a short term solution which will not address the long term problem: indeed, they would aggravate it.

6. ACTION

BCOM requests JOI to initiate further discussions with the subcontractors and JOIDES advisory structure to develop the 1993 program plan and budget, compatible with the recommendations in this report.