



Chief Review Services

INTERNAL AUDIT OF
DND YEAR 2000 (Y2K)
EXPENDITURES

June 2000

7050-9-11 (CRS)

SYNOPSIS

This report presents the results of an internal audit of DND Y2K expenditures. The purpose was to validate reported costs, including the use of Y2K funding loaned to the Department by the Treasury Board. The review also addressed related contracting for professional services, principally to determine if appropriate contracting mechanisms were used and that paid invoices were in accordance with the applicable contracts. Recognizing the extraordinary circumstances (i.e. compressed timeframes) under which this contracting occurred, the audit was also attentive to any major non-compliance with respect to government and departmental contracting policy and regulations.

Through independent means and confirmation procedures, the audit has confirmed the accuracy of the Department's recording of Y2K expenditures, amounting to \$366M in full costs (which includes \$318M in incremental costs) over the period FY 1997/98 – FY 2000/01. It has similarly been confirmed that, of the \$180M loaned from the Treasury Board, \$124M was expended by Y2K OPIs over the past three years. We saw no evidence that any Y2K funding was used for other than the purpose intended.

Minor deviations between our figures and those previously reported can be attributed to the availability of actual expenditure totals rather than estimates, and the use of different costing methodologies.

Based on our review of a sample of service contracting expenditures, we are able to conclude that appropriate contracting mechanisms were used and that invoices were appropriately substantiated. Further audit work in this area is not recommended.

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EXECUTIVE SUMMARY

BACKGROUND

1. As the conclusion to its review of the Year 2000 (Y2K) program in DND, in November 1999 CRS initiated a financial audit of Y2K expenditures. The audit focussed on the accuracy of accounting and reporting for all Y2K resource expenditures, the adequacy of controls over related contracting, and the administration of the Treasury Board Secretariat (TBS) Y2K loans. The scope of the review included the Technical Compliance Program (TCP), the Monitoring and Review Program (MRP), the Operational Readiness Program (ORP) and Op ABACUS, but excluded the National Contingency Planning Group (NCPG).
2. Initial estimates of Y2K-related costs for the period from 1997 to 2000 were \$350M for technical compliance activities and ORP, and Op ABACUS cost estimates of over \$300M. Actual expenditures were significantly less than these estimates, although incremental Y2K costs did have a major impact on OPI budgets during the 1998/99 and 1999/00 fiscal years. While a large part of Y2K expenditures was to be funded internally out of OPI budgets, DND obtained a loan of \$180M from Treasury Board (TB), part of which will be repaid by OPIs over the next three years. The Department was negotiating with TB over the level of Op ABACUS compensation when this report was prepared.
3. We completed our audit by reviewing all OPI financial records for Y2K, reconciling expenditures to contractual records and the FMAS, and comparing summary costs to PMO and ADM(Fin CS) records and reports. We also reviewed a sample of all Y2K contracts and contractual procedures for adherence to applicable policies, as well as appropriateness and reasonableness. All OPIs were given the opportunity to confirm their part of the financial summaries included in this report.

MAJOR RESULTS AND CONCLUSIONS

4. Our review of DND Y2K expenditures indicated that overall DND Y2K incremental costs were in the order of \$318M, with full costs of approximately \$366M. This figure includes \$4M to repair non-mission critical systems in FY 2000/01. Non-incremental costs of \$48M were mainly departmental salaries.
5. Over 77 per cent of the full costs were by three main OPIs. ADM(Mat), CLS and ADM(IM) each accounted for more than 20 per cent of the total expenditures. The TCP full cost was in the order of \$146M, while the MRP and ORP programs cost \$60M. Op ABACUS full costs were \$155M. Approximately 34 per cent was spent on related Y2K hardware/software or supplies, and 38 per cent on Y2K professional services. We were unable to allocate 10.6 per cent of total expenditures to specific cost elements within the Y2K program.

6. These total costs are very similar to those provided by the Y2K PMO and ADM(Fin CS). A Feb 00 Briefing Note to the DM indicated a total Y2K outlay of \$364M, with a further \$23M for the NCPG. This is very close to our full cost figure of \$366M. We had some difficulty, however, in reconciling OPI incremental costs and expenditures with FMAS records. This was due in part to delayed and limited financial direction on Y2K cost accounting as well as a lack of OPI consistency in financial reporting. We were able to identify and reconcile over 60% of Y2K incremental costs to the FMAS. Minor deviations between our figures and those previously reported can be attributed to the availability of actual expenditure totals rather than estimates, and the use of different costing methodologies.
7. Of the \$180M loaned to DND by TB for Y2K activities, \$124M was expended over the past two years and the remaining \$56M was allocated to relieve the financial pressures of Y2K related costs absorbed by the Department. \$65M will be repaid by Level Ones over the next three years which will adversely impact their financial resources over the period.
8. Based on our limited review, contracting for Y2K was found to be appropriate and in accordance with DND and government policies and procedures. We reviewed a number of professional service contract requisitions, Standing Offer Agreements and invoices for relevance and consistency. In general, contracting processes and records were reasonable, with only minor exceptions.

RECOMMENDATIONS

9. As a result of our review, we have no major recommendations. We did observe, however, that recording and reporting of related Y2K costs would have been improved if clear and consistent financial direction to OPIs had been available from the beginning. Timely and specific financial direction can be a major factor in properly accounting for pan-departmental projects such as Y2K.
10. Noting the time-sensitive and unique circumstances that surrounded the Y2K project activities, the departmental OPIs and the Y2K PMO did a credible job of ensuring that Y2K expenditures were reasonable, appropriate and legitimate. The lack of a 100% reconciliation of OPI Y2K expenditures to the FMAS is unfortunate, but was, due to a number of circumstances, unavoidable.
11. While value for money concerns are often subjective, we did not observe any indications that DND Y2K resources were expended for non-Y2K or inappropriate activities. We recommend that no further audit effort be expended in this area.

PART 1 - INTRODUCTION

1.1 As part of its review of the Year 2000 (Y2K) program in DND, in November 1999 CRS initiated a financial audit of Y2K expenditures. The audit focussed on the accuracy of accounting and reporting for all Y2K resource expenditures, the adequacy of controls over related contracting, and the administration of the Treasury Board Secretariat (TBS) Y2K loans.

1.2 Original estimates of Y2K-related costs for the period from 1997 to 2000 were \$350M for technical compliance activities and ORP, and Op ABACUS cost estimates of over \$300M. Actual expenditures were significantly less than these estimates, although incremental costs did have a major impact on OPI budgets during the 1998/99 and 1999/00 fiscal years. While a large part of Y2K expenditures was to be funded internally out of OPI budgets, DND obtained a loan of \$180M from Treasury Board (TB), part of which will be repaid by OPIs over the next three years. The Department was negotiating with TB over the level of Op ABACUS compensation when this report was prepared.

PART 2 - SCOPE AND METHODOLOGY

2.1 As stated previously, this review focused on the departmental expenditures on Y2K. The scope of the review included the Technical Compliance Program (TCP), the Operational Readiness Program (ORP), the Monitoring and Review Program (MRP) and Op ABACUS, but excluded the National Contingency Planning Group (NCPG). Departmental direction on Y2K cost accounting and reporting was provided in the references listed at Annex A. Personnel interviewed during our review are listed at Annex B. Audit criteria and the detailed methodology for the review are included at Annex C. Definitions used during the audit are at Annex D.

2.2 Our review findings and conclusions are based on the data compiled from our interviews and documentation received from the interviewees. Interviews were held with all of the major DND Y2K OPIs as well as staff from the Y2K Project Management Office (PMO). CRS worked closely with all of the OPIs to ensure that consistent definitions in classifying Y2K expenditures were applied.

2.3 The audit fieldwork was conducted between November 1999 and March 2000. Confirmation letters were sent to the OPIs requesting their verification of CRS's analysis of Y2K expenditures. This report includes the responses received from the OPIs to the confirmation letters. The majority of the expenditures in this report represent expenses incurred to the end of the 1999/00 fiscal year.

PART 3 - AUDIT RESULTS

3.1 DND Y2K EXPENDITURE SUMMARY

3.1.1 Our audit of DND/CF Y2K expenditures had two purposes – to provide DND/CF senior managers with an appreciation of total Y2K expenditures and potential impacts on future fiscal years, and to validate and confirm financial summaries from the Y2K PMO and ADM(Fin CS) staff. Some of the challenges we faced in compiling the information were as follows:

- inconsistent definitions were used regarding full versus incremental costs;
- all related Y2K salaries (normally designated as non-incremental) were not recorded by all OPIs;
- some expenses related to both Y2K and non-Y2K expenditures, which made it difficult for the OPIs to separate or segregate amounts;
- there was a high turnover of employees assuming the duties of recording Y2K expenditures;
- decentralized purchasing, while unavoidable, made the task of tracking the expenditures more difficult; and
- some expenditures could not be broken down to specific Y2K programs (i.e., TCP, ORP, MRP and Op ABACUS) as OPIs did not track the expenditures separately.

3.1.2 In the following sections, we have tabulated total Y2K expenditures from a number of different perspectives. We have included in section 3.2 total expenditures by fiscal year, by Y2K program, and by OPI, and have also presented Y2K expenditures by cost element in section 3.3. Section 3.4 depicts our partial reconciliation of Y2K expenditures to the FMAS, and section 3.5 summarizes the TB loan to DND. Y2K contracting is included at section 3.6.

3.2 DND Y2K PROGRAM RECONCILIATION BY FISCAL YEAR

3.2.1 As indicated in the following table, total Y2K OPI expenditures by fiscal year were over \$366,000,000. Note that \$4 million is forecast to fix non-mission critical systems (NMCS) in FY 2000/01:

Total Year 2000 Expenditures by Fiscal Year (as reported by the OPIs)		
Fiscal Year	Expenditure	Per cent
Prior to 1998/99	\$1,059,117	0.3%
1998/99	\$106,829,005	29.2%
1999/00	\$254,257,439	69.4%
Forecast 2000/01	\$4,048,000	1.1%
Total	\$366,193,561	100.0%

3.2.2 Total DND Y2K expenditures by Y2K program for all fiscal years were as follows:

Total Year 2000 Expenditures For All Fiscal Years (as reported by the OPIs)		
Program/Activity	Total Expenditures	% of Grand Total
TCP	\$146,526,198	40.0%
ORP & MRP	\$60,154,729	16.4%
OP ABACUS	\$155,464,634	42.5%
NMCS	\$4,048,000	1.1%
Grand Total	\$366,193,561	100.0%

DND Year 2000 (Y2K) Expenditures

3.2.3 Total Y2K expenditures by program by fiscal year:

Total Year 2000 Expenditures (as reported by the OPIs)					Per cent of Total Full Costs	
	Prior to 1998/00	FY 1998/99 and 1999/00	Forecast FY 2000/01	Total		
Incremental Costs						
TCP	1,059,117	127,892,304	0	\$128,951,421		
ABACUS	0	126,494,316	0	\$126,494,316		
MRP ORP	0	58,416,947	0	\$58,416,947		
NMCS			4,048,000	\$4,048,000		
Total Incremental Costs					\$317,910,684	86.8%
Non-Incremental Costs						
TCP	0	17,574,777	0	\$17,574,777		
ABACUS	0	28,970,318	0	\$28,970,318		
MRP ORP	0	1,737,782	0	\$1,737,782		
NMCS	0	0	0	\$0		
Total Non-Incremental Costs					\$48,282,877	13.2%
Total Full Costs (Total Costs)					\$366,193,561	100.0%

DND Year 2000 (Y2K) Expenditures

3.2.4 Total Y2K Expenditures by OPI by fiscal year:

Total Year 2000 Expenditures (as reported by the OPIs)						
OPI	Fiscal Years				Total of all Years	% of Total
	Prior to 1998/99	1998/99	1999/00	Forecast 2000/01		
ADM(Fin CS)	0	2,511,149	9,174,096	0	\$11,685,245	3.2%
ADM(HR)	179,582	2,366,843	3,027,827	0	\$5,574,252	1.5%
ADM(IE)	0	2,596,173	2,219,728	0	\$4,815,901	1.3%
ADM(Mat)	0	29,861,739	76,678,131	2,000,000	\$108,539,870	29.6%
CAS	0	6,609,598	12,489,926	0	\$19,099,524	5.2%
CFNA	0	0	460,000	0	\$460,000	0.1%
CLS	754,550	15,558,358	62,684,680	2,000,000	\$80,997,588	22.1%
CMS	0	10,996,439	13,507,810	0	\$24,504,249	6.7%
CRS	61,049	250,190	570,294	0	\$881,533	0.2%
DCDS	0	5,766,838	8,806,047	0	\$14,572,885	4.0%
DGPA	0	0	496,000	0	\$496,000	0.1%
DISO	0	29,750,847	63,439,460	0	\$93,190,307	25.4%
JAG	0	308,493	358,570	0	\$667,063	0.2%
VCDS	63,936	252,338	344,870	48,000	\$709,144	0.2%
Total	\$1,059,117	\$106,829,005	\$254,257,439	\$4,048,000	\$366,193,561	100.0%

DND Year 2000 (Y2K) Expenditures

3.2.5 Y2K Full Costs by OPI by Program:

Total Year 2000 Full Costs (as reported by the OPIs) for Fiscal Years 1998/99 and 1999/00 only				
OPI	Program/Activity			Total Expenditures
	TCP	ORP and MRP	Op ABACUS	
ADM(Fin CS)	7,899,765	201,245	3,584,235	\$11,685,245
ADM(HR)	4,944,438	0	450,232	\$5,394,670
ADM(IE)	4,746,870	0	69,031	\$4,815,901
ADM(Mat)	62,789,106	0	43,750,764	\$106,539,870
CAS	8,066,740	0	11,032,784	\$19,099,524
CFNA	0	0	460,000	\$460,000
CLS	18,907,953	0	59,335,085	\$78,243,038
CMS	22,983,709	600,000	920,540	\$24,504,249
CRS	0	820,484	0	\$820,484
DCDS	6,436,503	0	8,136,382	\$14,572,885
DGPA	0	0	496,000	\$496,000
DISO (includes PMO)	8,068,167	58,533,000	26,589,140	\$93,190,307
JAG	106,501	0	560,562	\$667,063
VCDS	517,329	0	79,879	\$597,208
Total	\$145,467,081	\$60,154,729	\$155,464,634	\$361,086,444

Note: This table does not include expenditures before FY1998/99 or after FY1999/00.

DND Year 2000 (Y2K) Expenditures

3.2.6 TCP Expenditures by fiscal year:

Total Technical Compliance Program Expenditures (as reported by OPIs)						
OPI	Fiscal Year 1998/99			Fiscal Year 1999/00		
	Incremental	Non-Incremental	Full Cost	Incremental	Non-Incremental	Full Cost
ADM(Fin CS)	645,970	1,718,071	2,364,041	3,663,530	1,872,194	\$5,535,724
ADM(HR)	1,797,869	568,974	2,366,843	1,881,849	695,746	\$2,577,595
ADM(IE)	2,052,497	521,433	2,573,930	1,875,496	297,444	\$2,172,940
ADM(Mat)	24,616,573	3,472,635	28,089,208	33,273,248	1,426,650	\$34,699,898
CAS	3,727,220	0	3,727,220	4,339,520	0	\$4,339,520
CFNA	0	0	0	0	0	\$0
CLS	10,529,851	0	10,529,851	8,378,102	0	\$8,378,102
CMS	10,805,022	191,417	10,996,439	11,672,449	314,821	\$11,987,270
CRS	0	0	0	0	0	\$0
DCDS	115,515	3,200,800	3,316,315	39,231	3,080,957	\$3,120,188
DGPA	0	0	0	0	0	\$0
DISO	3,082,847	0	3,082,847	4,985,320	0	\$4,985,320
JAG	26,837	0	26,837	79,664	0	\$79,664
VCDS	156,838	95,500	252,338	146,856	118,135	\$264,991
TCP Total	\$57,557,039	\$9,768,830	\$67,325,869	\$70,335,265	\$7,805,947	\$78,141,212
Total Incremental	\$127,892,304	Total Non-Incremental	\$17,574,777	Total Full Cost	\$145,467,081	

DND Year 2000 (Y2K) Expenditures

3.2.7 ORP and MRP Expenditures by fiscal year:

Total Expenditures for Operation Readiness Program and Monitoring and Review Program (as reported by the OFIs)						
OPI	Fiscal 1998/99			Fiscal 1999/00		
	Incremental	Non-Incremental	Full Cost 1998/99	Incremental	Non-Incremental	Full Cost 1999/00
ADM(Fin CS)	0	0	0	0	201,245	\$201,245
ADM(HR)	0	0	0	0	0	\$0
ADM(IE)	0	0	0	0	0	\$0
ADM(Mat)	0	0	0	0	0	\$0
CAS	0	0	0	0	0	\$0
CFNA	0	0	0	0	0	\$0
CLS	0	0	0	0	0	\$0
CMS	0	0	0	600,000	0	\$600,000
CRS)	145,613	104,577	250,190	438,376	131,918	\$570,294
DCDS	0	0	0	0	0	\$0
DGPA	0	0	0	0	0	\$0
DISO	26,432,842	235,158	26,668,000	30,800,116	1,064,884	\$31,865,000
JAG	0	0	0	0	0	\$0
VCDS	0	0	0	0	0	\$0
ORP/MRP Total	\$26,578,455	\$339,735	\$26,918,190	\$31,838,492	\$1,398,047	\$33,236,539
Total Incremental	\$58,416,947	Total Non-Incremental	\$1,737,782	Total Full Cost	\$60,154,729	

DND Year 2000 (Y2K) Expenditures

3.2.8 Op ABACUS Expenditures:

3.2.8.1 Expenditure totals for Op ABACUS are included in the following table, based upon the most recent figures provided by all Y2K OPIs. Earlier lower estimates were based upon incomplete expenditure totals, as full costing of Op ABACUS costs could not be completed until all invoices had been received. Our total of \$155.5M is based upon the most recent figures, and came directly from all Y2K OPIs.

3.2.8.2 Op ABACUS Expenditures by fiscal year:

Total Op ABACUS Expenditures (as reported by OPIs)							
OPI	Fiscal 1998/99			Fiscal 1999/00			Total Full Cost
	Incremental	Non-Incremental	Full Cost 1998/99	Incremental	Non-Incremental	Full Cost 1999/00	
ADM(Fin CS)	133,078	14,030	147,108	3,043,688	393,439	3,437,127	\$3,584,235
ADM(HR)	0	0	0	416,644	33,588	450,232	\$450,232
ADM(IE)	22,243	0	22,243	46,788	0	46,788	\$69,031
ADM(Mat)	1,772,531	0	1,772,531	41,978,233	0	41,978,233	\$43,750,764
CAS	2,882,378	0	2,882,378	8,150,406	0	8,150,406	\$11,032,784
CFNA	0	0	0	460,000	0	460,000	\$460,000
CLS	5,028,507	0	5,028,507	32,486,821	21,819,757	54,306,578	\$59,335,085
CMS	0	0	0	898,556	21,984	920,540	\$920,540
CRS	0	0	0	0	0	0	\$0
DCDS	433,723	2,016,800	2,450,523	1,565,994	4,119,865	5,685,859	\$8,136,382
DGPA	0	0	0	496,000	0	496,000	\$496,000
DISO	0	0	0	26,589,140	0	26,589,140	\$26,589,140
JAG	36,656	245,000	281,656	33,906	245,000	278,906	\$560,562
VCDS	0	0	0	19,024	60,855	79,879	\$79,879
Total	\$10,309,116	\$2,275,830	\$12,584,946	\$116,185,200	\$26,694,488	\$142,879,688	\$155,464,634
Total Incremental	\$126,494,316		Total Non-Incremental	\$28,970,318		Total Full Cost	\$155,464,634

3.3 Y2K EXPENDITURES BY COST ELEMENT

3.3.1 These costs represent an attempt to allocate Y2K full costs into standard cost elements, as determined by Y2K OPIs. As all expenditures could not be allocated into specific cost elements for a number of reasons, we were able to determine cost elements for only 89.5 per cent of all DND/CF Y2K expenditures.

Total Year 2000 Expenditures (as reported by the OPIs)		
Cost Elements	Total Expenditures for all Fiscal Years	% of Total over Grand Total
Professional Services	\$138,257,765	37.76%
Hardware/Software	\$28,136,200	7.68%
Parts/Equipment/Supplies	\$94,759,727	25.88%
Salaries	\$42,499,104	11.61%
Other Expenditures	\$19,869,243	5.43%
Forecast Expenditures for NMCS	\$4,048,000	1.11%
Unable to determine cost element type	\$38,623,522	10.55%
Grand Total	\$366,193,561	100.00%

DND Year 2000 (Y2K) Expenditures

3.3.2 Expenditures by Cost Element by OPI:

Classification of Year 2000 Expenditures by OPIs into Cost Elements								
OPI	Total Expenditure	Percentage of Total Expenditure for each OPI						
		Professional Services	Hardware/ Software	Parts/ Equipment/ Supplies	Salaries	Other Expenses	Unable to determine Element	NMCS
ADM(Fin CS)	\$11,685,245	26.4%	8.1%	22.9%	6.8%	0.0%	35.8%	0.0%
ADM(HR)	\$5,574,252	40.1%	11.8%	5.7%	24.8%	5.1%	12.4%	0.0%
ADM(IE)	\$4,815,901	54.3%	0.2%	1.5%	36.6%	7.3%	0.0%	0.0%
ADM(Mat)	\$108,539,870	34.9%	10.0%	31.4%	1.7%	5.0%	15.2%	1.8%
CAS	\$19,099,524	5.2%	0.5%	25.4%	0.7%	18.4%	49.7%	0.0%
CFNA	\$460,000	17.8%	44.3%	0.0%	37.8%	0.0%	0.0%	0.0%
CLS	\$80,997,588	13.3%	8.9%	36.6%	31.5%	7.2%	0.0%	2.5%
CMS	\$24,504,249	58.8%	23.5%	6.2%	4.0%	2.9%	4.6%	0.0%
CRS	\$820,484	65.8%	0.0%	0.0%	33.8%	0.4%	0.0%	0.0%
DCDS	\$14,572,885	0.0%	0.0%	0.0%	38.6%	16.8%	44.7%	0.0%
DGPA	\$496,000	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
DISO	\$93,190,307	70.1%	2.5%	23.2%	3.4%	0.8%	0.1%	0.0%
JAG	\$667,063	12.4%	3.7%	0.3%	73.5%	10.1%	0.0%	0.0%
VCDS	\$709,144	31.1%	8.7%	0.0%	52.7%	0.0%	0.7%	6.8%
Grand Total	\$366,132,512							

3.4 RECONCILIATION OF Y2K EXPENDITURES TO FMAS

3.4.1 As part of the audit methodology, CRS attempted to track/identify the Y2K expenditures reported by the OPIs back to FMAS. To accomplish this task, CRS tried to identify the unique FMAS financial codes used by the OPIs to record Y2K expenditures. The unique codes related to the Internal Order, Cost Centre and/or, Fund Centre codes.

3.4.2 CRS extracted expenditures from FMAS to compare with the expenditures reported by the OPIs. On average, about 60 per cent of the incremental costs could be readily identified in FMAS as presented in the following table:

Reconciliation of Expenditures to FMAS		
Expenditures	Fiscal Years 1998/99 and 1999/00	
	Incremental Costs Reported by the OPI	Approximate Percentage Tracked in FMAS
TCP	\$127,734,708	68.7%
ORP and MRP	\$58,474,188	64.3%
OP ABACUS	\$125,745,957	50.2%
Total	\$311,954,853	

3.4.3 CRS was unable to identify the remaining 40 per cent of expenditures in FMAS because of the following reasons:

Inability to track all expenditures

- OPI did not use unique financial codes to record Y2K expenditures.
- Difference between OPI report date and data extract from FMAS.
- Consultants providing professional services worked on both Y2K and non-Y2K activities. Their invoices did not segregate the expenses.
- Some transactions represented both Y2K and non-Y2K expenditures.

Rational for inconsistency in data entry

- Lack of financial direction for recording expenditures in FMAS.
- FMAS was implemented in 1998/99 – a new system which users had to become accustomed to - learning curve resulted in inconsistencies.
- Main priority was to ensure Y2K remediation over financial recording of expenditures.
- Some apparent weaknesses in FMAS:
 - ability for users to create financial codes; and
 - ability for users to record expenditures under other cost centres.

3.4.4 If all expenditures had been perfectly recorded and tracked, the expected difference between expenditures extracted from FMAS and expenditures reported by the OPIs would be \$0. CRS recognizes that the difference between expenditures extracted from FMAS and expenditures reported by the OPIs will not be \$0 because:

- of varying practices of the OPIs in recording expenditures;
- salaries represented a major component in the OPI reports; and
- there is a difference between the dates in the 'OPI Reports' and CRS analysis of data stored in FMAS.

3.5 TBS LOAN

3.5.1 The following table summarizes the Y2K TB loan allocation:

ALLOCATION OF TB LOAN AS REPORTED BY THE OPIs						
OPI	Allocation of TB Loan			TB Loan to be repaid by OPI	Grant	Amount not expended
	Fiscal 1998/99	Fiscal 1999/00	Total			
ADM(Fin CS)	500,000	1,500,000	\$2,000,000	\$2,000,000	\$0	\$0
ADM(HR)	2,195,000	1,800,000	\$3,995,000	\$3,995,000	\$0	\$0
ADM(IE) ¹	2,037,000	2,200,000	\$4,237,000	\$0	\$4,237,000	\$324,503
ADM(Mat) ²	7,600,000	18,318,000	\$25,918,000	\$25,918,000	\$0	\$0
ADM(Pol)	0	0	\$0	\$0	\$0	\$0
CAS	0	0	\$0	\$0	\$0	\$0
CFNA	0	0	\$0	\$0	\$0	\$0
CLS	4,900,000	4,920,000	\$9,820,000	\$9,820,000	\$0	\$0
CMS	4,000,000	9,804,000	\$13,804,000	\$13,804,000	\$0	\$0
CRS	100,000	315,000	\$415,000	\$0	\$415,000	\$0
DCDS	2,841,000	600,000	\$3,441,000	\$3,441,000	\$0	\$0
DGPA	0	0	\$0	\$0	\$0	\$0
DISO ³	28,267,000	31,734,000	\$60,001,000	\$6,420,000	\$53,581,000	\$0
JAG	0	0	\$0	\$0	\$0	\$0
VCDS	0	0	\$0	\$0	\$0	\$0
TOTAL	\$52,440,000	\$71,191,000	\$123,631,000	\$65,398,000	\$58,233,000	\$324,503
Amount of TB Loan			\$180,000,000			
Balance of TB Loan not allocated			\$56,369,000	31.3%		
Note 1: The PMO reported \$2,083,000 allocated to ADM(IE) for fiscal year 1998/99						
Note 2: Amount reported by PMO						
Note 3: Includes amount allocated for ORP, MRP and the PMO.						

- In general, the OPIs felt that the TB Loan was fairly allocated and based on their anticipated needs.
- Some OPIs would have preferred if the TB Loan was allocated to them sooner in the process because they had to initially use their own budget to finance Y2K expenditures.

3.6 Y2K CONTRACTING

3.6.1 A number of professional service contracts, related files and invoices were reviewed at the Y2K PMO and at DMGCP, the main contractual OPI for Y2K in DND. The number of files reviewed and their percentage of total related expenditures are listed below:

Contract Type	Files/Invoices	Contract amount reviewed as a percentage of total expenditures as at November 1999
Y2K Omnibus	312	33% of Omnibus contracts
GOC Contracts	101	77% of GOC contracts

3.6.2 Our contract verification included:

- ensuring consistency and validity between requisition and Standing Offer Agreements;
- matching invoices to requisitions for Y2K Omnibus contracts; and
- reviewing documentation that supported individual invoices for consistency.

Where possible we attempted to ensure that:

- the invoice description related to Y2K activities and/or contained a reference to a Y2K Standing Offer Agreement;
- the Statement of Work in the Standing Offer Agreement related to Y2K expenditures; and
- the invoice description was consistent with the nature of work stated in the Statement of Work.

3.6.3 In general, contracting procedures and records were reasonable and appropriate, with only minor exceptions. While our review was limited, we did not observe any indications that DND resources were expended for non-Y2K or inappropriate activities.

REFERENCES

- A. NDHQ Action Directive 3/97 5 August 1997
- B. DND CIO Memorandum on Year 2000 Cost Estimates 25 September 1998
- C. VCDS Guidance on Year 2000 Financial Management Guidance 20 November 1998
- D. VCDS Instruction 4/99 Op ABACUS Accountability 6 August 1999
- E. CRS Audit of Y2K Expenditures – 7059-9-11 (CRS) 26 November 2000
- F. OPERATION ABACUS Financial Report – 7 February 2000
- G. ADM(Fin CS) Briefing Note for the DM – Final Y2K Expenditures 10 February 2000
- H. Y2K PMO Report on DND/CF Year 2000 Program – 30000-23 (PMO Year 2000)
15 March 2000
- I. ADM(Fin CS) Financial Status Report – Summary of Year 2000 Resource Consumption
as at 31 March 2000

LIST OF OPI CONTACTS

<u>ADM(FIN CS):</u>	CFSU(O) Compt, DAPPP, D Budget, D Fin CS, D Fin Ops, DLBM DPC Fin CS
<u>ADM(HR):</u>	COS ADM(HR), DHRIM, ADM(HR) Compt
<u>ADM(IE):</u>	DIECS, DRAP
<u>ADM(MAT):</u>	CRAD Dev, DAEBM, DBM, DCPS, DGMCBM, DLBM, DLERM DMEIM, DMG Compt, DMGIM, DMMS
<u>ADM(POL):</u>	D Pol Dev
<u>CAS:</u>	CAS Compt
<u>CFNA:</u>	CFNA HQ (YK), Compt
<u>CLS:</u>	DLIR, LS Compt
<u>CMS:</u>	DMPPD, MS Rev Svc, R&S Coord
<u>CRS:</u>	AO CRS
<u>DCDS:</u>	DCDS Compt, DISOA
<u>DGPA:</u>	DGPA Admin O
<u>DISO:</u>	DDCEI, DISO Compt, Y2K PMO
<u>JAG:</u>	JAG BP, CFLA
<u>VCDS:</u>	CIO, DFPPC

AUDIT CRITERIA AND METHODOLOGY

OBJECTIVES

1. The audit objectives focused on the accuracy of accounting and reporting for all Y2K resource expenditures, the adequacy of controls over related contracting, and the administration of the Treasury Board Secretariat (TBS) Y2K loans. More specifically, the objectives included:
 - a. Y2K Expenditure Controls. To determine if expenditure controls were adequate to provide reasonable managerial oversight and fiscal accountability.
 - b. Y2K TBS Loans. To determine if TBS loans were necessary, equitably distributed and properly managed.
 - c. Y2K Financial Administration. To determine if Y2K expenditures were properly recorded in the departmental financial systems and reviewed regularly by an appropriate OPI.
 - d. Y2K Contracting. To determine the extent of Y2K contracting in DND.
 - e. Value-For-Money. To determine if DND received full 'value-for-money' for all Y2K expenditures.

METHODOLOGY

2. To achieve the audit objectives, evidence was collected by inquiry, confirmation, documentation review and data analysis for ten specific audit criteria as presented on the next page.
3. CRS compiled and compared information from the OPIs, FMAS, and central organizations. Where possible, CRS reviewed and confirmed Y2K costs for each fiscal year and OPI according to the following categories:
 - Y2K programs - TCP, ORP, MRP and Op ABACUS;
 - full costs versus incremental costs; and
 - cost element/breakdown (i.e., hardware, software, contractors, etc.).
4. At the end of the audit fieldwork phase, confirmation letters were sent to the OPIs requesting their verification of cost analysis and reporting performed by CRS.

AUDIT METHODOLOGY

Audit Objective	Audit Criteria	Methodology				
		Inquiry (Interview)	Confirmation	Documentation Review		Data Analysis
				Contracts/Invoices	Other	
1, 3	All Y2K-related expenditures should be separately accounted for and reported in FMAS or FIS as such by all Y2K OPIs.	✓	✓✓	✓	✓	✓✓
1, 3	Y2K expenditures should be specifically identified as either goods or services, and assignable to a distinct Y2K project, system or activity.		✓✓	✓✓	✓✓	✓✓
1, 3	Y2K expenditures should be allocated to the Compliance Program, ORP, or Op ABACUS, under either incremental or full cost categories.	✓	✓✓	✓✓	✓✓	✓✓
1	All Y2K expenditures and forecasts should be included in annual OPI Business Plans (note this also applies to expected future costs for non-mission critical systems).	✓			✓	
4	All Y2K-related contracts should be identified as such and segregated from other contracts.			✓✓		✓
4, 5	Y2K-identified contracts, whether for goods or services, should not include expenditures for non-Y2K items or services.			✓✓		✓
4	All Y2K contract expenditures should be fully supported by valid requisitions, invoices and authorizations. They should be compliant with government/departmental contracting regulations and with delegated authorities.			✓✓		✓
2	TB loans to DND for Y2K purposes should be fully documented and accounted for, and fairly allocated based on OPI need.	✓	✓✓		✓✓	
4, 5	Value for money should be a consideration for any Y2K expenditure.	✓		✓✓	✓	
1, 2, 3	Regular and accurate cost reporting should be in place for all Y2K-related costs.	✓	✓	✓	✓✓	✓✓
Legend ✓✓ = primary method ✓ = secondary or supporting method		Note: The methodology to evaluate the audit criteria was subject to minor changes as a result of new information obtained during the course of the audit. (Last revision 5 January 2000.)				

DEFINITIONS USED IN EXPENDITURE RECONCILIATION

Y2K PROGRAM ACTIVITIES

1. DND/CF implemented various program activities to prepare for Year 2000. Definitions of the programs included in the scope of the CRS YK Expenditure Audit are described below.
 - a. Technical Compliance Program (TCP). The Technical Compliance Program (TCP) was a standard, bottom-up, systems oriented, technical approach to making systems Y2K compliant. The TCP was concerned primarily with putting in place the expertise, methodology, standards, and overall framework to resolve DND/CF system deficiencies.
 - b. Operational Readiness Program (ORP). The Operational Readiness Program (ORP) was a top-down, mission-oriented program to ensure that the Canadian Forces implements and field-validates viable operational postures in order to minimise any potential Year 2000 disruption to the Canadian Forces operational capability. The ORP co-ordinated the activities undertaken by the technical community to identify and replace, renovate, upgrade, certify or perform workarounds on all non-compliant systems in preparation for Y2K. The ORP ensured that the right systems were fixed the right way at the right time. The ORP also provided the framework to develop, validate and field operationally viable workarounds to minimize the potential Y2K impact on CF operational capability.
 - c. Monitoring and Review Program (MRP). The Monitoring and Review Program (MRP) was responsible to ensure the application of due diligence to all aspects of the DND Y2K effort. There main activities included in the MRP were the: verification of system certification records led by PMO Year 2000; review of policies, plans, practices and data led by CRS; and, independent review of high priority systems led by ADM(Mat) for embedded systems and ADM(Fin) for MIS and C3I systems.
 - d. Operation ABACUS (Op ABACUS). DND/CF first issued the Op ABACUS warning order in August of 1998. Op ABACUS was the national level response to potential Y2K problems in the event that the CF was requested to support civil authorities in a significant public welfare emergency. The goal was to provide assistance to mitigate disruptive effects beyond the capability of the affected governments in dealing with civil emergencies where people's safety and well being may have been threatened.

FULL VERSUS INCREMENTAL Y2K COSTS

2. VCDS developed guidelines in November 1998 to define full and incremental Y2K costs as detailed below:

- a. Full Costs. The sum of all costs, variable and fixed, direct and indirect, cash and non-cash, incurred by the Government in the supply of a service. See CFM 98-99. For DND, these costs include:
 - (1) all direct and indirect personnel costs (civilian and military wages, overtime, statutory, allowances and p-related O&M),
 - (2) all operating and support costs for equipment usage (POL, spares, contracted R&O, as well as depreciation), and
 - (3) the direct procurement/drawdown from stocks for consumption of goods and services (e.g., rations, generators, leased communications, logistics contractor support, etc...).
- b. Incremental Costs. Additional costs incurred as a *direct result* of supplying a service. These costs result from additional resources or a reallocation of existing resources. For short-term decisions, incremental costs are normally the same as variable costs. For long term decisions some fixed costs become incremental costs. See CFM 98-99. For DND, these costs are by:
 - (1) Personnel – civilian personnel overtime and replacements (backfills) to personnel assigned to Y2K activities,
 - (2) Equipment usage – the operating costs, and
 - (3) Goods and services – Direct procurement/drawdown from stores for consumption for Y2K activities.

3. In the context of Y2K activities (including Op ABACUS) and for the purpose of seeking additional funding from Treasury Board as stated in references A and B, incremental costs as defined above will be abated by that portion *that otherwise would have been spent on exercises or absorbed as part of normal activities*.

COST ELEMENTS

4. CRS classified the OPIs' Y2K expenditures into cost elements as described below:
 - a. Professional Services. Expenditures to hire consultants.
 - b. Hardware/Software. Expenditures to acquire hardware and software.
 - c. Parts/Equipment/Supplies. Expenditures include: rental costs, machinery, repair and maintenance, fuel costs, equipment and supplies.
 - d. Salaries. Non-incremental and incremental salaries.
 - e. Other Expenditures. Miscellaneous expenditures that are not part of Professional Services, Hardware/Software, Parts/Equipment/Suppliers, and Salaries.
 - f. NMCS. Forecast expenditures for Non-Mission Critical Systems.
 - g. Unable to determine type. Expenditures were classified into this category when information was unavailable to describe the expense.