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Chief Review Services Chef - Service d'examen

CRS  CS Ex



## Audit of Contractor-Held Inventory

May 2008

7052-67 (CRS)



Canada 

## CAVEAT

This audit is not intended to assess the performance of contractors; rather, it is an internal assessment of departmental processes and practices.



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## ACRONYMS AND ABBREVIATIONS

AAS	Accountable Advance Spares
ADM(Fin CS)	Assistant Deputy Minister (Finance and Corporate Services)
ADM(Mat)	Assistant Deputy Minister (Materiel)
A-LM-184	DND Special Instructions for Repair and Overhaul Contractors
CDN\$	Canadian Dollar
CFSS	Canadian Forces Supply System
CHI	Contractor-Held Inventory
CIS	Contract Issue Spares
COS ADM(Mat)	Chief of Staff Assistant Deputy Minister (Materiel)
CRS	Chief Review Services
DFA	Director Financial Accounting
DGMSSC	Director General Materiel Systems and Supply Chain
DMG Compt	Director Materiel Group Comptrollership
DMPP	Director Materiel Policy and Procedures
DND	Department of National Defence
DQA	Director Quality Assurance
DSCO	Director Supply Chain Operations
EPM	Equipment Program Management
FAA	<i>Financial Administration Act</i>
FMAS	Financial Managerial Accounting System
FY	Fiscal Year
GFOS	Government Furnished Overhaul Spares
GFS	Government Funded Spares
Log SOW	Logistics Statement of Work
MRH	Main Rotor Head
NDQAR	National Defence Quality Assurance Representative
NSN	NATO Stock Number
OAG	Office of the Auditor General
PAM	Procurement Administration Manual
ProcO	Procurement Officer
QAR	Quality Assurance Representative
RMA	Repairable Materiel Account
RRMA	Regional Repairable Materiel Account
R&O	Repair and Overhaul
USD\$	United States Dollar



## RESULTS IN BRIEF

Chief Review Services (CRS) conducted an audit of contractor-held inventory (CHI) to assess whether Department of National Defence (DND) management practices ensure adequate safeguarding and prudent use of these resources and whether CHI information used for decision making and financial reporting purposes is accurate and complete.

Contractors held approximately \$1.7 billion, or 18 percent, of DND-owned consumable and repairable inventory items at 31 March 2007. Fifty-five percent of these holdings,<sup>1</sup> primarily contract issue spares (CIS), are tracked on an on-going basis in the Canadian Forces Supply System (CFSS). The Department does not track or monitor the remaining 45 percent of the holdings; rather, safeguarding and valuation of this portion of CHI is dependent on contractor processes, information systems, and reporting. Over \$769 million of fiscal year (FY) 2006/07 reported CHI (primarily accountable advance spares (AAS)<sup>2</sup> and government furnished overhaul spares (GFOS)<sup>3</sup>) was not recorded in CFSS at 31 March 2007.

### Overall Assessment

There is insufficient departmental monitoring and oversight of CHI. Consequently, it cannot be assured that:

- Stocktaking is accurate and stock adjustments are controlled;
- Levels of AAS/GFOS holdings are optimized;
- AAS purchases and payments are fully substantiated; and
- Reported quantities and values of CHI are accurate.

To properly safeguard and to ensure prudent use of these holdings, departmental CHI management practices must be enhanced.

## Findings and Recommendations

### CHI Governance and Control Framework

While DND Special Instructions for Repair and Overhaul Contractors (A-LM-184) documents the policy for contractor procurement, reimbursement, custody and disposal of CHI,<sup>4</sup> weaknesses in the implementation and enforcement of the policy were observed. In some cases, policies are not clear, or daily procedures are not consistent with the established policies. As well, departmental roles and responsibilities are not well defined, resulting in insufficient monitoring and oversight of these assets.

**Inventory Management.** Several inventory management controls were found to be insufficient, including those relating to:

- Stocktaking;
- Inventory adjustments; and
- Review of holdings, including conversion to CIS, and removal of obsolete items.

<sup>1</sup> Based on FY 2006/07 reported values.

<sup>2</sup> AAS are inventory items purchased by repair and overhaul (R&O) contractors in accordance with A-LM-184 criteria, which are subsequently reimbursed by DND. Non-R&O contractors may hold government funded spares (GFS) which are reimbursed by DND at time of purchase, but which do not need to meet the A-LM-184 criteria.

<sup>3</sup> GFOS are non-catalogued inventory spares which are not purchased by contractors but rather occur when AAS is transferred from another contractor, DND procures with the US government, spares are salvaged from DND equipment, or CIS spares are de-catalogued.

<sup>4</sup> For non-R&O contractors, similar “special” instructions are applicable.



For the most part, contractors are required to complete stocktaking every two years of both CFSS and non-CFSS holdings.<sup>5</sup> DND personnel are not required to participate in the stocktaking, and they often provided little or no oversight of the process. As a result, the Department cannot be assured of the validity of the stocktaking or of the completeness and accuracy of related reports of inventory holdings.

While A-LM-184 directs that write-offs of both CFSS and non-CFSS holdings must be authorized by DND, there is no clear understanding of the difference between a write-off and other types of inventory adjustments. The result is that many inventory adjustments, particularly to non-CFSS holdings, do not receive DND approval or sufficient oversight. Discrepancies are not sufficiently investigated prior to adjustments being made, increasing the risk that these departmental assets are not adequately safeguarded.

There is low turnover of many AAS/GFOS items and, in several cases, contractors have stated they are carrying obsolete items. Because there has been little effort to rationalize these holdings, the Department may be incurring excessive carrying charges. As well, many of the AAS items were catalogued (i.e., had an active NATO stock number (NSN)). Policy requires that these items be transferred to CIS so that they are visible and available to all potential users. This was not occurring at the time of the audit.

It is recommended that policy be clarified and enforced to require DND involvement in stocktaking and departmental approval prior to making any adjustments to holdings. Further, it is recommended that DND ensure CHI is reviewed periodically, and that catalogued items are transferred to CIS and obsolete items are removed.

**AAS Purchases and Payments.** AAS purchasing criteria, in particular the requirements to ensure items were not catalogued and had long lead times, were not always adhered to. In addition, invoices for AAS payments did not always include sufficient supporting documentation to attest under the *Financial Administration Act* (FAA) Section 34 that contract terms were met and amounts charged were valid. As a result, the Department is at risk of purchasing unneeded items, or paying elevated prices.

It is recommended that greater scrutiny be applied to AAS purchases and payments, to ensure that the purchasing criteria are met and that charges are in accordance with contractual clauses.

**Monitoring and Oversight.** The responsibilities of the various sections involved in the management of CHI are not clearly understood. Procurement officers (ProcO) and quality assurance representatives (QAR) did not have a consistent understanding of their responsibilities. This increases the risk of duplication and gaps in the oversight provided. In addition, some oversight currently completed by Director Financial Accounting (DFA) staff to improve the quality of contractors' annual reports of holdings should more appropriately be the responsibility of Assistant Deputy Minister (Materiel) (ADM(Mat)) personnel as they are better positioned to validate these reports in an effective manner.

It is recommended that the roles and responsibilities of various ADM(Mat) directorates regarding CHI monitoring and oversight be clearly defined.

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<sup>5</sup> One reviewed contract required annual stocktaking rather than every two years.

## Accuracy of Reported CHI

Previous CRS audits have documented weaknesses in the pricing and financial statement treatment of CFSS-tracked inventory holdings.<sup>6</sup> These concerns are as relevant for contractor-held CFSS items as for DND-held items. In consideration of these previous CRS audits, the principal focus of this audit was the CHI that is not recorded in CFSS (i.e., AAS and GFOS). The Department did not adequately verify contractor reports of non-CFSS holdings, resulting in a potential understatement of up to \$58 million in the FY 2006/07 financial statements. Incomplete information, potential double counting, and quantity and pricing errors affected the accuracy of the reported values. As well, a year-end adjusting entry that was erroneously attributed to CHI resulted in an additional \$80-million error in the financial statement reported value of CHI.

It is recommended that the reporting timeframes be revised to allow sufficient time to ensure the accuracy and completeness of the contractor returns. Also, the reporting methodology should be improved through better guidance to the contractors, use of standard templates, and more regular reporting to enable earlier identification and rectification of problems.

### Caution to Reader

Previous CRS audits have highlighted significant inaccuracies in CFSS pricing; this audit documents similar issues with AAS/GFOS pricing. As a result, no assertion is made as to the accuracy of reported values. Caution must be exercised in using these results for management decision making without further confirmation. In some cases, the analysis does not include a dollar value as the reported prices were deemed unreliable.

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**Note:** For a more detailed list of CRS recommendations and management response, please refer to [Annex A](#)—Management Action Plan.

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<sup>6</sup> See CRS *Audit of Inventory Pricing*, August 2007 ([http://www.forces.gc.ca/crs/pdfs/invpricing\\_e.pdf](http://www.forces.gc.ca/crs/pdfs/invpricing_e.pdf)) and CRS *Audit of Accounting for Capital Assets—Repairable Items*, December 2007 ([http://crs.mil.ca/pdfs/repairitems\\_e.pdf](http://crs.mil.ca/pdfs/repairitems_e.pdf)).



## INTRODUCTION

### Background

In accordance with the CRS Work Plan for FY 2006/07, an audit of CHI was conducted. The reported value of CHI at 31 March 2007 was approximately \$1.7 billion.<sup>7</sup> The DND Audit Readiness Assessment and previous Office of the Auditor General (OAG) audits documented concerns regarding the accuracy of these holdings.

### Objectives

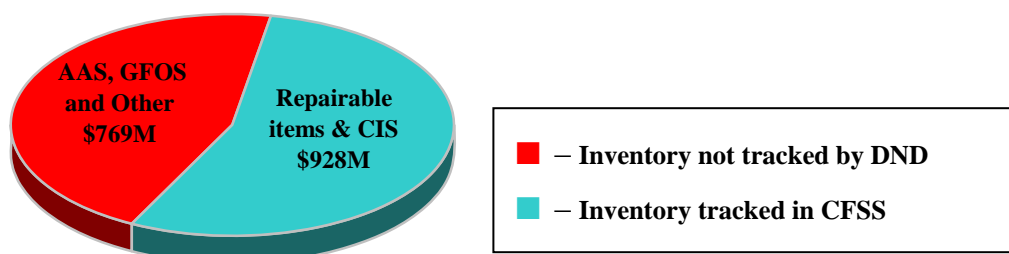
The objectives of this audit were to:

- Assess the adequacy of the CHI governance and control framework; and
- Determine whether CHI information used for decision making and financial reporting purposes is accurate and complete.

Please refer to [Annex B](#) for a listing of the criteria used to assess the objectives.

### Scope

The audit scope included all DND-owned inventory held by contractors. At 31 March 2007, these holdings had a reported value of \$1.7 billion, approximately 55 percent (\$928 million) of which was tracked in the CFSS (i.e., repairable items and CIS) and approximately 45 percent (\$769 million), primarily AAS and GFOS,<sup>8</sup> which are not tracked in any departmental information system. The Department relies on annual contractor reports for visibility and control of this portion of CHI. Contractors held approximately 18 percent of the inventory (including both consumables and repairables)<sup>9</sup> reported in the FY 2006/07 Departmental Financial Statements.



**Figure 1. Contractor Holdings of DND Inventory.** 45 percent of holdings were not tracked by DND.

<sup>7</sup> This does not include the value of stand-alone capital assets held for repair by contractors.

<sup>8</sup> Also includes approximately \$9.1 million of bonded stock, GFS and government supplied spares.

<sup>9</sup> Note 9 to the 2006-2007 Departmental Financial Statements includes a value for "Contractor Held Inventory." This represents only the consumable AAS/GFOS that contractors hold. Consumable CIS, tracked in CFSS and held by contractors (approximately \$46 million), is included in Note 9 in various other inventory pools, while the value of both repairable CIS (approximately \$883 million) and repairable AAS/GFOS (approximately \$600 million) held by contractors is included in Note 10 as Tangible Capital Assets.



## Methodology

The audit results are based on:

- Review of policies and procedures, including A-LM-184 and the Canadian Forces Supply Manual;
- Interviews with key ADM(Mat) and Assistant Deputy Minister (Finance and Corporate Services) (ADM(Fin CS)) personnel;
- Analysis of data in contractors' CHI returns;
- Analysis of the CFSS records of CHI holdings;
- Site visits to three contractors which included:
  - Verification of a risk-based sample of purchase transactions,
  - Examination of supporting documentation for AAS payments and inventory adjustments, and
  - Stocktaking on a sample basis.



## FINDINGS AND RECOMMENDATIONS

### CHI Governance and Control Framework

*There has been little oversight of AAS/GFOS stockholding records and stock adjustments, increasing the risk that materiel is not adequately safeguarded, or that undetected loss is occurring. As well, AAS purchases and payments are not sufficiently scrutinized to ensure procurement criteria are met and all charges are valid.*

### Inventory Management

Departmental oversight is currently not sufficient to ensure that AAS/GFOS stock levels are optimized and that these assets are properly safeguarded. In particular, DND controls are inadequate with regards to:

- Stocktaking;
- Inventory adjustments; and
- Review of holdings, including conversion of AAS/GFOS to CIS, and removal of dormant/obsolete items.

**Stocktaking.** A-LM-184 Chapter 6 outlines stocktaking procedures for AAS, GFOS and CIS. Contractors must complete periodic stock counts of these inventories and forward a report of the results to the QAR. There is no obligation for a representative from DND, or other independent observer, to be present during the stock count.

Using a sampling approach, in FY 2006/07 Director Quality Assurance (DQA) staff conducted a confirmation of CFSS holdings at contractor sites; however, AAS and GFOS holdings were not included in the review. Without DND oversight of AAS/GFOS stocktaking, the Department has no means of ensuring that assets with a reported value of \$769 million are properly safeguarded and accounted for. There is increased risk that reported quantities are inaccurate.

**Investigation of Stocktaking Discrepancies.** Table 1 shows the summary results of the DQA stocktaking of CIS holdings completed in February 2007 at one of the visited contractors.<sup>10</sup> DND adjusted the CFSS quantities following the stocktaking prior to completing an investigation into the discrepancies. The net adjustments resulted in a 35-percent reduction in the value of CIS holdings of the contractor. The contractor was asked to rationalize the discrepancies based on any records of the holdings. At the time of the audit, DND had not followed up with the contractor or established a deadline for the investigation.

Deficient	Surplus	Net Discrepancy
(\$2.97M)	\$1.02M	(\$1.95M)

**Table 1. Stocktaking Discrepancies.** Large discrepancies were found during DQA verification of CIS holdings at one of the visited contractors.

<sup>10</sup> The stocktaking also identified deficiencies of \$8.22 million and surpluses of \$6.33 million in capital assets. The resulting adjustments to recorded holdings are excluded from the summary totals in Table 1.



While these results apply to just one of three visited contractors, the situation could be widespread as the Department does not have adequate mitigating controls in place. The three visited contractors all duplicate CFSS records in their own inventory system, with the result that receipts, issues and adjustments must be entered in both systems. This leads to complicated reconciliations and increases the risk of stocktaking discrepancies.

**Inventory Adjustments.** A-LM-184 Chapter 6 states that a CF 152 Write-off Report must “be prepared listing all line items that have either a shortage or a surplus as a result of comparing the actual count and stock records.” It further states that “discrepancies discovered during casual stock checks shall be included on the CF 152 raised during the 100-percent stocktaking and that all original CF 152s will be submitted to the National Defence Quality Assurance Representative (NDQAR).” While the requirements appear to apply to CIS, AAS and GFOS, the statement that “this process will apply to stocktaking of material held in repairable materiel account (RMA) and regional repairable materiel account (RRMA) warehouses ...” creates confusion because these accounts only contain CIS. There is also confusion regarding what authorization, if any, is required for inventory adjustments that are not considered write-offs, such as write-ups and write-downs as a result of data input errors or miscalculations.

The audit found that the same level of scrutiny is not being applied to adjustments of AAS and GFOS as is applied to CIS.

At one of the three visited contractor locations:

- The contractor’s inventory officer entered adjustments in both CFSS and the contractor’s inventory system;
- QAR approval was obtained prior to entering CIS adjusting transactions in CFSS; and
- Approval was not obtained for AAS and GFOS adjusting transactions entered in the contractor’s inventory system.

At a second visited contractor site:

- AAS/GFOS adjustments had been performed without obtaining approval from the QAR;
- All adjustments to their CIS holdings in one RMA were made without DND recorded authorization in CFSS; and
- The QAR was currently initiating a process to ensure that all inventory officers properly document a valid reason for any adjustments, but this was not yet in place.

The third visited contractor was not subject to the requirements of A-LM-184 as it was not an R&O contractor. This site held GFS rather than AAS spares.<sup>11</sup> The requirement for the QAR to review all transactions to the contractor inventory system was clearly documented in special operating instructions developed specifically for this contract. In this case, the requirements were being adhered to.

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<sup>11</sup> Because of their similarities, unless otherwise noted, we have included GFS holdings in the AAS analysis.

**Review of AAS and GFOS Holdings.** Contractual requirements stipulate that a review of spares is to be performed in conjunction with the stocktaking schedule. Contractors are to review inventory to identify spares that have become surplus to their requirements or that are no longer fit for use in repairing and overhauling DND equipment. In some cases these holdings should be converted to CIS in order to optimize the level of holdings while minimizing carrying costs.

**Conversion to CIS.** A-LM-184 requires that AAS items with a NSN, which are surplus to a contractor's current needs, be transferred to CIS in order to facilitate use and satisfy the operational requirements of all potential users. None of the ProcOs nor any of the contractors' key personnel at the three visited sites had ever initiated a transfer of surplus AAS to CIS. Table 2 shows the value of AAS inventories at these sites that had a NSN and could potentially have been transferred to CIS.

Contractor	Value of AAS	Value of AAS with NSN	% of AAS with NSN
No. 1	\$1.70M	\$1.29M	76%
No. 2	\$1.44M	\$1.05M	73%
No. 3	\$10.58M	\$7.68M	73%

**Table 2. FYE 2007 Values of AAS.** 75 percent of AAS (in terms of value) at the visited contractor sites had a NSN.

**Removal of Dormant/Obsolete Inventory.** For many of the items reviewed at the three contractors' sites, excessive stock was on hand. This is occurring because:

- There are minimum order quantities associated with most items; and
- Some parts are currently or may become difficult or impossible to source, so large quantities are held on hand.

This may be valid rationale for maintaining stock that has very low turnover rates. However, without periodic reviews of the holdings it is difficult to determine which stock should be maintained and which is truly surplus to needs.

Two of the three visited contractor sites had significant levels of obsolete inventory attributed in part to discontinued platforms. Both of these contractors had completed obsolescence studies and had notified DND of the results; however, in both cases DND has been slow to authorize the removal of these items.

When questioned as to obsolescence practices, the third contractor advised that its inventory management system has the capability to identify items for obsolescence but that this function is not currently being performed. The company has not recently reviewed inventory for obsolete or surplus items.

Current annual contractor reporting templates request information necessary for financial reporting purposes; however, information that would assist with the effective and efficient management of inventory, such as turnover rates and obsolescence, is not requested.



OPI	RECOMMENDATION
ADM(Mat)/DGMSSC	<b>Inventory Management.</b> Clarify and enforce policies to ensure that: <ul style="list-style-type: none"> <li>• DND oversight of stocktaking is adequate;</li> <li>• DND authorization of inventory adjustments is appropriate;</li> <li>• AAS with a NSN be converted to CIS; and</li> <li>• AAS/GFOS holdings be periodically reviewed, and surplus and obsolete items be removed.</li> </ul>

### AAS Purchases and Payments

A-LM-184 criteria for AAS purchases were not being met at one of the three visited contractors, and limited visibility and oversight existed at another of the visited contractors who was not subject to these requirements when purchasing spares to be reimbursed using government funds. This led to unnecessary purchases, and higher than required stock levels. In addition, invoices submitted for payment of AAS purchases did not include sufficient supporting documentation to validate the contractor's laid-down costs or the exchange rates applied.

**AAS Purchasing Criteria.** A-LM-184 states the AAS purchasing criteria for R&O contractors. While prior written authority from the ProcO existed for the sampled AAS purchases, other criteria had not been fully met.

During FY 2007/08, for one of the visited contractors:

- 5 of 12 (42 percent) recent line item purchases of AAS were catalogued items (i.e., had an active NSN);
- Neither contractor personnel nor the ProcO confirmed whether an item was catalogued prior to purchasing as AAS; and
- Approximately 75 percent of the overall value of the contractor's AAS holdings had a NSN, making the requirement to purchase them as AAS questionable.

#### Items purchased as AAS must:

- Not be currently catalogued;
- Have a specific military application;
- Require a long procurement lead time (in excess of 12 months); and
- Have DND written authority prior to purchase.

**Authorization of Spares Purchases.** A-LM-184 AAS purchasing criteria did not apply to one of the three visited contractors because the spares were not purchased in support of an R&O contract. This contractor was contractually authorized to purchase GFS rather than AAS. Like AAS, GFS purchase costs are reimbursed by DND, and ownership transfers to DND; however, the purchasing criteria are not as rigorous. There is no documented rationale for the difference. In accordance with the contract, for these GFS purchases:

- Only purchases exceeding \$5,000 required DND approval; and
- There was no obligation to ensure items are non-catalogued or have long lead times.



Only 6 of 36 (16 percent) sampled GFS purchases required and received DND authorization. Twenty-six of the purchased items had a NSN and could have been obtained through CFSS. While the contractual purchasing criteria were met, lack of DND oversight on these purchases may have resulted in less than best value to the Department.

**Adequacy of Payment Supporting Documentation.** The sampled invoices for reimbursement of contractors' costs for AAS did not include copies of their supplier invoices. As a result, FAA Section 34 certification was completed without confirming that:

- Only allowable amounts were included in billing for the laid-down cost; and
- The calculation of foreign exchange was correct.

**Contractors' Laid-Down Cost.** As per the reviewed contracts, DND reimburses the contractors' laid-down cost<sup>12</sup> of AAS purchases, exclusive of material handling overhead, general and administrative fees, profit and embodiment charges. One of the three visited contractors was including "labour costs to make materials ready for storage" as part of the laid-down cost. These charges comprised 22 percent of billed total laid-down cost. It would appear that these costs should be considered part of material handling overhead and, therefore, are non-reimbursable. In addition, there was no method to confirm the amount of these charges and, overall, they appeared very high. For 3 of the 12 purchased line items, the labour cost to make materials ready for storage exceeded the direct material cost, as shown in Table 3.

Part Number	Description	Qty	Labour Costs to Make Materials Ready for Storage	Direct Materials Cost	Total Laid-Down Cost by Item
900591-1	Choke, Common Mode	57	\$925	\$648	\$1,573
900595-1	Choke, Common Mode	59	\$925	\$570	\$1,495
MS24523-22	Switch, Toggle, One Pole, Sealed	24	\$574	\$367	\$941

**Table 3. Reimbursed Laid-Down Cost.** *In some instances "labour costs to make materials ready for storage" exceeded the cost of direct materials.*

In this case, DND did not receive copies of the supplier invoices, making it impossible to confirm that the direct material costs billed are accurate. As embodiment fees are based on a percentage of laid-down cost, an overpayment of this cost on the purchase will result in a subsequent overpayment of embodiment fees when the spares are used.

**Foreign Exchange Rate Charges.** Foreign exchange paid by contractors on purchases of AAS is reimbursable by DND. Again, supplier invoices are required to determine the appropriate amount. One of the three visited contractors was billing DND in Canadian dollars (CDN\$) without any indication on the invoice that the amounts had been converted from United States dollars (USD\$). While the exchange rate in effect between the date of the AAS proposal and the

<sup>12</sup> As defined in contract: "the Contractor's invoice price (less trade discounts), plus any applicable charges for incoming transportation, foreign exchange, customs duty and brokerage, but excludes the Goods and Services Tax and Harmonized Sales Tax."



subsequent reimbursement fluctuated between 0.92:1 and 1.11:1 CDN\$,<sup>13</sup> at least half of the 12 sampled line items were billed and reimbursed at an imputed exchange rate of 1.1995:1. It is impossible to determine the exact amount of the overcharge without copies of suppliers' invoices and knowledge of the contractor's associated date of payment. Without confirming documentation, the potential exists for exchange overpayment.

OPI	RECOMMENDATION
ADM(Mat)/DGMSSC	<p><b>AAS Purchases and Payments.</b> Increase departmental scrutiny of parts purchases and payments to ensure that:</p> <ul style="list-style-type: none"> <li>• Items purchased as AAS be non-catalogued;</li> <li>• Purchases of GFS meet the same criteria as AAS or rationale for differences has been documented; and</li> <li>• Sufficient supporting documentation be received to validate all AAS payments.</li> </ul>

### Monitoring and Oversight

Multiple ADM(Mat) directorates are involved in CHI management. Because their relative roles and responsibilities have not been clearly defined, there are gaps and some duplication in the monitoring and oversight conducted.

For example, the ProcOs for the visited contractors were questioned regarding their oversight roles. As shown in Table 4, they had varying opinions regarding some key responsibilities.

Responsibility	ProcO 1	ProcO 2	ProcO 3
Check contractor-enacted transactions	✓	×	✓
Identify and follow up on anomalies	✓	×	✓
Monitor and verify reporting of AAS/GFOS	×	✓	✓
Enforce policy and contractual requirements	×	✓	✓

**Table 4. ProcO Roles.** *ProcOs had varying opinions regarding some key responsibilities.*

DQA and the ProcOs share some inventory management functions. Although ProcOs are responsible for ensuring that the contractors complete the mandatory 100-percent stocktaking requirement, the stocktake results are forwarded to NDQAR, who may or may not provide a copy to the ProcO. Additionally, while ProcOs authorize the procurement of spares, QARs authorize, review and, in some cases, enact adjustments to inventory. QARs are DND's sole on-site representatives, and they have inherited additional responsibilities due to lack of other resources; however, their primary role is quality assurance and not materiel management.

<sup>13</sup> Based on Bank of Canada exchange rates between May 1 and August 23, 2007 <http://www.bankofcanada.ca>.



While several sections are contributing to the process of managing and valuing CHI, a review of reported AAS and GFOS information from an inventory management perspective is not currently being performed by DND.

OPI	RECOMMENDATION
ADM(Mat)/DGMSSC	<b>Monitoring and Oversight.</b> Establish clear delineation of roles pertaining to CHI, particularly between ADM(Mat) divisions. Formalize/document ADM(Mat)'s responsibility for ensuring the validity of contractor submissions.





## Accuracy of Reported CHI

*AAS/GFOS annual reports submitted by contractors to DND are incomplete and inaccurate. Combined with a subsequent departmental accounting error, this resulted in inaccurate CHI values being reported in the FY 2006/07 Departmental Financial Statements.*

## Completeness/Accuracy of Contractor Submissions

At present, DND relies entirely on contractors to provide accurate reports of their AAS/GFOS inventory holdings. There is no automated means to validate these reports or to reconcile the effects of purchases and inventory consumption on the reported balances.

The value of CHI included in the FY 2006/07 Departmental Financial Statements was inaccurate because:

- Some holdings were not reported;
- Some reported quantities and prices were inaccurate;
- Repairability information required to properly attribute items in the financial statements was missing; and
- Information was not reported in a standard fashion, leading to some consolidation errors.

**Completeness of Reported Holdings.** Annually, Director Materiel Group Comptrollership (DMG Compt)<sup>14</sup> staff compile a list of contracts for which a report of year-end AAS/GFOS holdings is required. The list has grown from approximately 40 to 85 contracts, in part because of improved knowledge by DMG Compt of the contracts that allow for AAS/GFOS holdings. However, there is still some risk that this list does not include all relevant contracts.

Contractors did not provide a return for 13 of the 85 contracts (15 percent) on the FY 2006/07 list:

- For 3 of these 13 contracts, the Department included the FY 2005/06 reported value in the FY 2006/07 financial statements.<sup>15</sup>
- The value of any holdings associated with the remaining 10 contracts was not included in the financial statements.

The reported value of AAS/GFOS holdings could be understated by as much as \$13 million if the median value of holdings per contract of \$1.3 million applies for these 10 unreported contracts.

Two of the ten unreported contracts were held by one of the three visited contractors. Table 5 compares AAS/GFOS holdings recorded in this contractor's inventory management system to the holdings reported in its annual return. None of the GFOS and only two-thirds of this contractor's AAS holdings was included in DND's FY 2006/07 financial statement values.

<sup>14</sup> DMG Compt is a directorate within ADM(Mat).

<sup>15</sup> The impact on the financial statements of using the FY 2005/06 value for these three contracts, rather than the FY 2006/07 value, cannot be determined.



Comparison	AAS		GFOS	
	Line Items	Quantity	Line Items	Quantity
Annual Return	43	4,886	0	0
Contractor System	117	7,383	544	8,685
Not Reported	74 63%	2,497 34%	544 100%	8,685 100%

**Table 5. Incomplete Returns.** *Large amounts of AAS and GFOS inventories were not included in this contractor's return and were subsequently not included in the Department's financial statements.*

**Reported Quantities.** Contractor submissions contained readily apparent quantity errors that were not rectified prior to determining the financial statements value. These included quantities that were blank or negative, and inappropriate fractional quantities as highlighted in Table 6.

Part Number	Description	Unit of Measure	Quantity
5544247	Universal Joint	Each	1177.95671
5191534	Pin, Quick Release	Each	210.501495
MS9500-06	Bolt, Machine	Each	0.64

**Table 6. Quantity Errors.** *Some items were mistakenly reported to have fractional quantities on hand.*

In addition, at least 6 percent of reports submitted by contractors erroneously included CIS. Where the inventory classification column was correctly completed (i.e., indicating that these items were CIS), DND was able to remove these items before compiling the financial statements value. However, for the majority of returns, the classification column was left blank and as a result it cannot be assured that items included in the financial statements as AAS/GFOS were not also included as CIS based on CFSS records.

In some cases, while the returns indicated that an item was AAS/GFOS, a review of CFSS records showed the same contractor held the same items under CIS. Table 7 provides an example of where such double counting may have occurred.

Type	NSN	Description	Quantity
CIS	2910-21-912-6484	Fuel Tank	40
GFOS	2910-21-912-6484	Fuel Tank	34

**Table 7. Potential for Double Counting.** *This contractor included fuel tanks as GFOS holdings. CFSS records indicated the contractor had CIS holdings of this item. It is unclear whether these are the same or different fuel tanks.*



**Reported Prices.** Many anomalies were observed in the AAS/GFOS unit prices reported by contractors including zero and blank prices, default prices, and inconsistent prices.

**Blank or Zero Unit Price.** For 8,783 (6 percent) of the entries on contractor submissions, the unit price was reported as zero or the field was left blank. While DFA<sup>16</sup> used historic information to attribute a unit price to 280 entries, the majority was left without a price and therefore excluded from the financial statement reported value.

While only a rough estimate, the total resulting understatement could be upwards of \$25 million, including:

- \$8 million if the 5 percent of records with a NSN are priced using their respective catalogue value; and
- an additional \$17 million if the remaining zero unit priced records were attributed the average unit price of all other reported items of \$18.11.

Some of the blank or zero-priced items may be obsolete or awaiting disposal, and therefore should not be attributed a value in the financial statements. However, more complete information is required to determine the extent to which this applies.

**Default Unit Price.** In one contractor submission, 320 of 377 reported line items (85 percent) were assigned a default unit price of \$148.50. If the 151 of these line items that had a NSN were priced using their respective catalogue value, the resulting net understatement would be approximately \$3.5 million. Although the use of default pricing by this contractor had been identified as an outstanding issue since the end of FY 2005/06, the issue had not been resolved at the time of the audit—more than one year later.

**Inconsistent Unit Prices.** The unit price for a given item often varied widely. Some variation is to be expected due to differences in timing, quantity purchased, supplier selected, and whether the item was purchased as AAS or was obtained as GFOS through salvage. Additional monitoring and oversight is required to determine whether pricing variances, such as those highlighted in Table 8, can be rationalized.

Part Number	Description	Min. Reported Price	Max. Reported Price
3059843-101	Computer, System, Digital	\$4,897.50	\$489,750.00
EA1205G027-093	Aircraft Staging (Steel)	\$100.00	\$256,265.92
EC6221B520-045	Assembly MRH Tension Link	\$9,343.99	\$140,739.79
4011T23G02	Support Ring	\$1.00	\$26,639.61
EA7160V012-007	Assembly No. 3 Engine Air-Intake	\$1.00	\$175,211.99

**Table 8. Examples of Pricing Inconsistencies.** *Data validity and reasonableness checks were insufficient to validate prices prior to inclusion in the financial statements.*

<sup>16</sup> DFA is a directorate within ADM(Fin CS).



For items that were included more than once in various contractor submissions, 41 percent had unit prices that varied by more than 25 percent. The potential for the financial statements to be misstated as a result of these price inconsistencies is high. If only those line items with at least one reported price greater than \$1,000 are considered,<sup>17</sup> and all such line items are:

- Valued at their minimum reported price, the total value of CHI decreases by \$28 million; or
- Valued at their maximum reported price, the total value of CHI increases by \$20 million.

Since these figures have not been validated, they can only be considered approximate and it is probable that the actual value is somewhere in between.

**Summary of Potential Differences Between Actual and Reported Values.** Summarizing the correcting assumptions made for the anomalies documented above, the value of AAS/GFOS at 31 March 2007 could range from \$741 million to \$827 million, rather than the reported value of \$769 million. The effects of the potential double counting of CIS items cannot be quantified and thus is not included in this range. Additional oversight and validation by DND is required if the accuracy of contractor reported values is to be improved and DND CHI is to be properly safeguarded.



**Figure 2. Potential Differences Between Actual and Reported Value.** *Using various correcting assumptions, the potential range in value for the entire AAS/GFOS population as at 31 March 2007 could vary between \$741 million and \$827 million.*

**Repairability Information.** Using the repair flag field, contractors are asked to indicate on their submission whether each item is repairable or consumable. This information is used by DFA to determine whether the item should be classified as a capital asset (by including it in one of the repairable asset pools) or included as a consumable inventory item on the Departmental Financial Statements.

<sup>17</sup> This was done to eliminate line items where the percentage difference between minimum price and maximum price is high, but the absolute difference is low, e.g., minimum price of \$1.00 and maximum price of \$3.00.

On the FY 2006/07 contractor returns, 34 percent of line item entries did not include the required repair flag information. None of the three visited contractors had provided this information, stating they did not understand the requirement. Consequently, \$95.2 million of CHI was allocated among repairable pools and consumable inventory based on DFA assumptions regarding repairability.

**Standardization of Returns.** DFA has developed a standard reporting template that is forwarded by DMG Compt to contractors. This template is designed to meet DFA financial statement reporting requirements and may not gather all information required by DMG Compt for management purposes. For example, for FY 2006/07, the requirement to distinguish between AAS and GFOS inventory was removed. While DFA may not require this information, it is useful to DMG Compt when validating prices, ensuring CIS items have not been erroneously included, or validating holdings between years, or when transferred among contractors.

Despite issuing a standard template, returns in a variety of formats were accepted by DMG Compt. This complicated consolidation. Some fields in the consolidated report contained scientific notation or other forms of erroneous data because the submitted reports were not compatible.

As well, assumptions and corrections made during the verification and consolidation process are sometimes not sufficiently documented, making subsequent reconciliation difficult. While one contractor's detailed return indicated it had over \$23.4 million in holdings, the consolidated report listed the holdings as only \$2.10 million. Neither the contractor's submission nor the consolidated report was annotated to explain the difference.<sup>18</sup>

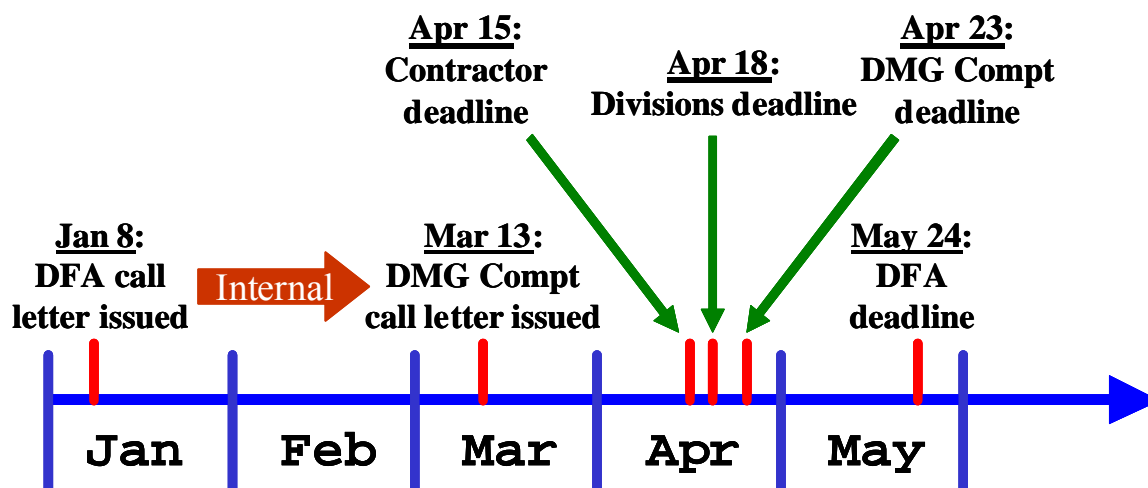
OPI	RECOMMENDATION
ADM(Mat)/DGMSSC	<b>Completeness/Accuracy of Contractor Submissions.</b> Improve the methodology for AAS/GFOS reporting through, for example: <ul style="list-style-type: none"> <li>• Increased guidance/training;</li> <li>• Use of standard templates;</li> <li>• Increased monitoring; and</li> <li>• More regular reporting.</li> </ul>
ADM(Mat)/ COS ADM(Mat)	

## Reporting Deadlines

DND allocated insufficient time to ensure that all contractor submissions were received, that quantities and prices were accurate, and that all other required information was submitted.

<sup>18</sup> An e-mail was subsequently located indicating that some of the items should be treated as standalone capital assets.





**Figure 3. Timeline for the Reporting of AAS/GFOS Holdings.** *DMG Compt staff had insufficient time to adequately review information submitted by contractors.*

DMG Compt staff is responsible for collecting and validating the information contained in annual contractor returns. As shown in Figure 3, only three working days (i.e., April 18 to April 23) were allocated for this process in FY 2006/07. As a result in part, many errors and omissions in the data were not rectified before this information was forwarded to DFA staff for inclusion in the Departmental Financial Statements. While DFA staff tried to improve the quality of the data, they are not in the best position to make the necessary corrections as they do not have direct contact with the contractors nor do they have the required in-depth knowledge of the reported holdings. Consequently, departmental oversight was ineffective in ensuring all holdings were accurately and completely reported.

OPI	RECOMMENDATIONS
ADM(Mat)/ COS ADM(Mat)	<b>Reporting Deadlines.</b> Revise the AAS/GFOS reporting timeframes to allow sufficient time for ADM(Mat) staff to adequately validate the accuracy and completeness of the returns.

### Financial Statement Attribution

An \$80-million inventory adjusting entry was erroneously attributed to CHI in Note 9 of the Departmental Financial Statements for FY 2006/07. The adjusting entry was made to account for inventory held at DND sites at year-end but not yet recorded in the CFSS. The adjusting entry was made to a general ledger account that was wrongly linked to CHI in the financial statements. Consequently, the financial statement reported value of \$249.9<sup>19</sup> million was \$80 million more than the value reported in contractor submissions. To avoid this in the future, it is strongly suggested that all inventory be properly receipted through CFSS prior to year-end, to eliminate the need for this type of direct adjusting entry in the departmental Financial Managerial Accounting System (FMAS).

<sup>19</sup> The Note 9 value includes only consumable AAS/GFOS CHI.

## ANNEX A—MANAGEMENT ACTION PLAN

Ser	CRS Recommendation	OPI	Management Action	Target Completion Date
Departmental CHI Management Practices				
1.	<b>Inventory Management.</b> Clarify and enforce policies to ensure that: <ul style="list-style-type: none"> <li>DND oversight of stocktaking is adequate;</li> <li>DND authorization of inventory adjustments is appropriate;</li> <li>AAS with a NSN be converted to CIS; and</li> <li>AAS/GFOS holdings be periodically reviewed, and surplus and obsolete items be removed.</li> </ul>	ADM(Mat)/ DGMSSC/ DMPP 7  ADM(Mat)/ DGMSSC/ DMPP 4  ADM(Mat)/ DGMSSC/ DMPP 7  ADM(Mat)/ DGMSSC/ DMPP 4  ADM(Mat)/ DGMSSC/ DMPP 7  ADM(Mat)/ DGMSSC/ DMPP 4  ADM(Mat)/ DGMSSC/ DSCO 2  ADM(Mat)/ DGMSSC/ DMPP 7  ADM(Mat)/ DGMSSC/ DMPP 4  ADM(Mat)/ DGMSSC/ DSCO 2	<ul style="list-style-type: none"> <li>Develop departmental policy to include provision for DND oversight of stocktaking.</li> <li>Develop a Logistics Statement of Work (Log SOW) to provide clear direction to contractors regarding stocktaking.</li> <li>Develop departmental policy to include provision for DND authorization of inventory adjustments.</li> <li>Log SOW to provide clear direction to contractors for all types of CHI inventory adjustments.</li> <li>Develop departmental policy to include requirement for the conversion of AAS to CIS.</li> <li>Log SOW to ensure contractor identifies AAS holdings that have a NSN to allow for conversion to CIS and CFSS tracking.</li> <li>Strategic Asset and Inventory Oversight Cell to commence an initiative to identify the holdings of AAS with NSN and, on behalf of ADM(Mat), ask each of the appropriate EPM to convert them and bring them on charge as CIS. Monitor on an ongoing basis.</li> <li>Develop departmental policy to include requirement to periodically review and remove surplus and obsolete items from inventory.</li> <li>Log SOW to ensure contractor reviews AAS/GFOS holdings to identify surplus and obsolete items.</li> <li>Strategic Asset and Inventory Oversight Cell to commence an initiative to periodically review AAS/GFOS holdings and on behalf of ADM(Mat), ask each of the appropriate EPM to remove identified surplus and obsolete items.</li> </ul>	Fall 2009  December 2009  Fall 2009  December 2009  Fall 2009  December 2009  September 2009  Fall 2009  December 2009  September 2009





## ANNEX A

Ser	CRS Recommendation	OPI	Management Action	Target Completion Date
<b>Departmental CHI Management Practices (cont'd)</b>				
2.	<b>AAS Purchases and Payments.</b> Increase departmental scrutiny of parts purchases and payments to ensure that: <ul style="list-style-type: none"> <li>Items purchased as AAS be non-catalogued;</li> <li>Purchases of GFS meet the same criteria as AAS or rationale for differences has been documented; and</li> <li>Sufficient supporting documentation be received to validate all AAS payments.</li> </ul>	ADM(Mat)/ DGMSSC/ DMPP 4  ADM(Mat)/ DGMSSC/ DMPP 4, DMPP 7  ADM(Mat)/ DGMSSC/ DMPP 4  ADM(Mat)/ DGMSSC/ DMPP 4	<ul style="list-style-type: none"> <li>Log SOW to provide clear direction to contractors for the purchasing and payment requirements for all types of CHI inventory.</li> <li>DMPP 4 will investigate the use of the term “government funded spares” in the terms and conditions of DND contracts and follow up as required.</li> <li>DMPP 4 will ensure that appropriate terminology defined by DMPP 7 is reflected in the Log SOW.</li> <li>PAM Chap 5.1.6 provides clear direction to DND personnel regarding the purchasing and payment of equipment and services, including spares. A PAM chapter is required regarding the purchasing for AAS spares under R&amp;O contracts.</li> </ul>	December 2009  June 2009  December 2009  March 2010
3.	<b>Monitoring and Oversight.</b> Establish clear delineation of roles pertaining to CHI, particularly between ADM(Mat) divisions. Formalize/document ADM(Mat)’s responsibility for ensuring the validity of contractor submissions.	ADM(Mat)/ DGMSSC/ DMPP 7, DMPP 4, DMPP 6, DQA	<ul style="list-style-type: none"> <li>Develop departmental policy to include delineation of the roles responsibilities, and accountabilities between ADM(Mat) divisions and clarify interdepartmental responsibilities.</li> </ul>	Fall 2009
<b>Accuracy of Reported CHI</b>				
4.	<b>Completeness and Accuracy of Contractor Submissions.</b> Improve the methodology for AAS/GFOS reporting through, for example: <ul style="list-style-type: none"> <li>Increased guidance/training;</li> <li>Use of standard templates; and</li> </ul>	ADM(Mat)/ DGMSSC/ DMPP 7  ADM(Mat)/ DGMSSC/ DMPP 4  ADM(Mat)/ COS ADM(Mat)/ DMG Compt 4	<ul style="list-style-type: none"> <li>Develop departmental policy to provide increased guidance on management of CHI.</li> <li>Log SOW to be amended to include the latest requirement for standardized reporting templates developed by DMG Compt and data elements such as identifying inventory that is consumable versus inventory that is repairable (spares) to support departmental reporting requirements.</li> </ul>	September 2009  December 2009





## ANNEX A

Ser	CRS Recommendation	OPI	Management Action	Target Completion Date
<b>Accuracy of Reported CHI (cont'd)</b>				
	<ul style="list-style-type: none"> <li>Increased monitoring and more regular reporting.</li> </ul>	ADM(Mat)/ DGMSSC/ DMPP 4  ADM(Mat)/ COS ADM(Mat)/ DMG Compt 4	<ul style="list-style-type: none"> <li>PAM chapter to be written to provide guidelines regarding management, monitoring and reporting of CHI requirements.</li> </ul>	March 2010
5.	<b>Reporting Deadlines.</b> Revise the AAS/GFOS reporting timeframes to allow sufficient time for ADM(Mat) staff to adequately validate the accuracy and completeness of the returns.	ADM(Mat)/ COS ADM(Mat)/ DMG Compt 4	<ul style="list-style-type: none"> <li>DMG Compt 4 to consult with ADM(Fin CS)/DFA to advise on a timeframe that will allow ADM(Mat) divisions to adequately validate the accuracy and completeness of Contractor returns while respecting departmental year-end deadlines for annual reporting.</li> </ul>	Fall 2009



## ANNEX B—AUDIT CRITERIA

Objective	Criteria
Assess the adequacy of the CHI governance and control framework.	CHI policy is clearly documented and followed by both DND and contractor personnel.
	There is adequate DND oversight of AAS purchases to ensure purchasing criteria are met.
	AAS payments are sufficiently reviewed prior to FAA Section 34 certification.
	CHI holdings are subject to periodic stocktaking. There is adequate DND oversight of stocktaking.
	Holdings of AAS and GFOS are reviewed and obsolete, surplus items are removed.
	There is adequate DND oversight of CHI adjustments and write-offs.
	Roles and responsibilities for CHI management, including responsibility for obtaining and validating contractor submissions, are clearly documented.
Determine whether CHI information used for decision making and financial reporting purposes is accurate and complete.	DND has full visibility and oversight of all CHI holdings.
	Records of holdings are accurate and complete with regards to price and quantity.
	Additional information regarding holdings is sufficient for management and reporting purposes, e.g., repairability, condition.
	CHI information is accurately reported in the Departmental Financial Statements.

