REVIEW OF THE COMBAT SYSTEMS TRAINER CONTRACT MANAGEMENT PRACTICES

REPORT OF FINDINGS

June 4, 1999

TABLE OF CONTENTS

| 1. | Introduction | 1 |
|----|--|----|
| | Objective and Scope of the Review | 5 |
| | Approach and Methodology | 6 |
| 2. | Overview of the Combat Systems Trainer Project | 7 |
| | Overview | 7 |
| 3. | Summary of Key Findings | 11 |
| | Results of the Examination of Allegations | 11 |
| | Key Findings | 11 |
| | Scope of the CST Project | |
| | Transparency of Contract & Project Changes | 13 |
| | Authority | 15 |
| | Payments | 18 |
| | Value for Money | 18 |

APPENDIX 1 - DISPOSITION OF ALLEGATIONS

1. INTRODUCTION

Review Background

In the summer of 1994, the DND Directorate of Special Examinations and Inquiries (DSEI) began an examination into allegations of conflict of interest within the Canadian Patrol Frigate (CPF) Project Management Office (PMO). Subsequently, additional concerns and issues were raised that included; conflict of interest, human resource management, non-performance by contractors, weaknesses in contract management as well as in national and industrial security. Many of the concerns focused on activities, processes and management practices associated with the \$90M sub-project for the acquisition of the Combat Systems Trainer (CST). These concerns had implications for both DND and PWGSC. As the different allegations, concerns and complaints were raised, different review agencies and mandates became involved.

While this examination was in progress, certain issues involving the CST were reported in November 1994 media coverage. Further coverage occurred in February 1995 when CTV's W5 Program aired a segment that was largely critical of the management of the CPF Project and of the performance of the Frigates. In April 1995, the Acting Deputy Minister DND, with the concurrence of the Deputy Minister PWGSC, directed that the scope of independent review activity be expanded to include value-for-money and probity considerations for the whole CPF Project. Additional issues were raised over the next months.

The magnitude and complexity of the Review cannot be overstated. It has encompassed diverse issues, many of which are departmental in scope, as well as project activities that have taken place over the course of many years. The major topics and the agencies involved in the Review are as depicted in Exhibit 1.1.

Exhibit 1.1 — Review Roles and Organization

| Area of Review | Review Organization |
|---------------------------------|---|
| CPF Cost and Capability | DND/Chief of Review Services (CRS) |
| Comparison | |
| CPF Contract Management | DND/CRS & PWGSC/Director General Audit and |
| Framework | Review (DGAR) |
| Combat Systems Trainer Contract | Coopers & Lybrand under a contract jointly managed by |
| Management | DND/CRS & PWGSC/DGAR |
| Conflict of Interest | DND/CRS & PWGSC/DGAR |
| Security of Information | DND Security and Military Police and PWGSC Intérnal |
| | Affairs/Industrial/Corporate Security |
| Human Resources Management | DND Directorate of Civilian Personnel (Material) and |
| | PWGSC Staff Relations, Compensation and Systems |
| | Directorate |

The overall management and coordination of the Review has occurred at two levels. An Interdepartmental CPF Review Steering Committee, consisting of DND/CRS and PWGSC/DGAR, oversaw the Review. At the working level an interdepartmental group of representatives from DND, PWGSC and departmental Security and Human Resources staffs, met on a regular basis to exchange information and to co-ordinate their activities.

Review Reports

The results of the CPF Review are contained in several individual reports as follows:

- <u>Interdepartmental Review of the CPF Contract Management Framework.</u> (prepared by DND & PWGSC Review staffs).
- CPF Cost and Capability Comparison. (prepared by DND Review Staff).
- Review of CST Contract Management. (prepared by Coopers & Lybrand).
- Interdepartmental Review of Conflict of Interest. (DND & PWGSC).
- <u>Human Resource Management</u>. Allegations/complaints involving human resource management issues were raised against senior personnel in the CPF PMO. These have been investigated and reported by appropriate authorities in accordance with applicable departmental policies. The work was coordinated with, but not overseen by, other elements of the CPF

Review. As we understand, only one such allegation, involving the distribution of a memorandum in only one official language, has been founded.

• Interdepartmental Review of Security. (DND & PWGSC)

Specific Review results are presented in these individual reports. This report presents the results of the review of the Combat Systems Trainer Contract Management Practices.

CPF Project Background

Project Initiation

The CPF Project was the culmination of a process initiated in the late 1960s that was intended to replace the ageing steam-drive St. Laurent class of destroyers. Major planning steps to achieve this goal began in November 1977. A Request for Proposal (RFP) was released to industry in 1978 and five contenders responded providing their preliminary designs in a funded competitive definition phase.

The contract to build six new Frigates was awarded to the prime contractor in July 1983. The design and integration of the Frigates' combat and control systems was subcontracted to a new Canadian firm. In addition, a subcontract was awarded to build three of the first six Frigates. The CPF contract was subsequently amended in 1987 to include the construction of an additional six Frigates - all built by the prime contractor - for a total of 12.

Project Magnitude

The CPF Project is the largest defence capital procurement ever undertaken by DND. The total project funding approved by Treasury Board (TB) was \$10.436B (forecasted BY\$), with a funding time line from 1983 to 1998. The accommodate actual escalation rates, the total budget was subsequently adjusted by the CPF PMO to approximately \$9.37B. The Project involved two phases: the first, approved by TB in 1983, authorized the construction of six Frigates to replace the St. Laurent class of destroyer - for a project cost of \$5.435B - with the last ship to be delivered in 1992; the second, approved in December 1987, authorized the construction of six more Frigates and additional funding of \$4.982B. The last ship was contracted to be delivered in 1996.

Project Responsibilities

In order to allocate accountability and responsibility for the management of the CPF, an interdepartmental Memorandum of Understanding (MOU) was prepared in 1983 with the agreement of the three departments involved, namely DND, PWGSC (DSS) and Industry Canada. DND, as the lead or client department, was responsible for securing the Project end results and for overall management. PWGSC, as the contracting authority, was responsible for providing contracting advice and assistance while ensuring that all CPF procurement activities were carried out in accordance with established governmental regulations and policies. Industry Canada was responsible for ensuring that the industrial benefits expected from the program were realized. Integration and coordination of the departmental inputs was accomplished by the establishment of a Senior Review Board (SRB), which served to provide direction and guidance throughout the life of the Project.

Responsibility for the delivery of the 12 Frigates was borne by the prime contractor, the builder of nine of the Frigates. A primary subcontractor in the first phase of the CPF contract built three Frigates. Another primary subcontractor was responsible for systems integration and combat systems development for all 12 Frigates.

The Combat Systems Trainer Project

The Combat Systems Trainer (CST) project is one of the projects within the Canadian Patrol Frigate (CPF) Program. The primary subcontractor responsible for system integration on the Frigates was contracted (under separate contract) to be the prime contractor on the CST Project. Its overall purpose was to design, develop and produce computer-based trainers for the maintenance and operation of the combat systems on board the frigates. A number of allegations have been raised regarding certain contracting practices followed on the project as well as with respect to the overall management of the project. Accordingly, a CPF Review Interdepartmental Steering Committee consisting of members from DND and PWGSC — with the Office of the Auditor General (OAG) present in a monitoring capacity — was created to oversee the examination of the allegations. Coopers & Lybrand was contracted to examine the merit of the allegations related to the CST Project.

Objective and Scope of the Review of the CST Contract Management Practices

The overall objective of this review was to assess the merit of 15 specific allegations made regarding certain contracting practices followed on the CST project as well as with respect to the overall management of the project. During the Preliminary Assessment Phase of our work, additional issues were identified that warranted further examination. The allegations and issues were examined from the number of perspectives including:

- **Contracting Practices** including an examination of whether contracting practices were in compliance with departmental and Central Agency regulations and whether they were effective in protecting the interests of the Crown.
- *Value for Money* including an assessment as to whether aspects of the CST project detracted from the Crown receiving value for money.
- Safeguarding of Intellectual Property including an assessment of the measures taken by the Crown and the prime contractor to protect intellectual property related to the CST project.
- *Industrial Regional Benefits (IRBs)* including an assessment of the processes followed to monitor the achievement of the IRB commitments made in the 1991 TB Submission and an examination of whether these commitments have been achieved.

The scope of the Review included an examination of the contract management practices surrounding the following CST contracts:

- the original CST contract dated May 1991, through to the completion of the Operations Room Team Trainer (ORTT) Requirements Validation Phase (RVP);
- the Maintenance Procedures Trainer (MPT) interim contract dated June 1993;
- the ORTT interim contract dated June 1993;
- the MPT prototype phase contract dated November 1993; and
- the revised CST contract for the ORTT dated November 1993.

Approach and Methodology

Our assessments regarding the merit of the individual allegations were made after careful consideration of the sequence of project events, and examination of the evidence gathered from project-related documentation maintained by Industry Canada, PWGSC, DND and the prime contractor and interviews with individuals directly involved in the project. A number of specific measures were taken by the review team to ensure that the allegations were assessed in a fair and comprehensive manner.

- Considerable effort was made to understand the nature of the project, as well as significant project events and the rationale for decisions made in the management of the contract.
- When possible, interviews were conducted with individuals named in the allegations in order to ensure that a balanced perspective was obtained.
- The Review went beyond an assessment of the specific facts presented and considered whether the general themes of the allegations had merit.

A draft of the report was issued to the project authorities from DND, PWGSC and the prime contractor, and this final version of the report reflects those comments which were considered by the review team to constitute correction or clarification.

2. OVERVIEW OF THE COMBAT SYSTEMS TRAINER PROJECT

Overview

The CST project is a multi-year, multi-million dollar project which has involved the design and development of computer-based trainers for the maintenance and operation of the combat systems on board the frigates. Major projects on this scale are inherently risky, and the management of such initiatives is a continuous exercise in the management of this risk. The project management team is constantly challenged to take changing circumstances and unforeseen obstacles into consideration, and make decisions which, in their judgement, further the overall goals of the project. The CST project is no exception, and throughout the life of the project, management has been faced with difficult choices. A balanced assessment of contracting practices must take this context into account.

The CST project was approved by Treasury Board in April 1991, and on 2 May 1991 a \$90 million contract was awarded to the prime contractor. As the developer and integrator of the CPF combat systems, the prime contractor was considered to have the specific and unique expertise required to carry out the CST work, and as a result was awarded the CST contract on a sole source basis. The terms of the established that the prime contract would have Total Systems Responsibility (TSR), which essentially means that the contractor would be responsible for managing and conducting all phases of the project.

The original CST contract consisted of two distinct components: the Maintenance Procedure Trainer (MPT) and the Operations Room Team Trainer (ORTT). A separate Statement of Work (SOW) existed for each component. Under the MPT component, the prime contractor was to design, develop and produce computer-based trainers for the maintenance of the combat systems for a firm fixed price of \$18.791M. The purpose was to eliminate much of the time spent training on the actual CPF equipment. The MPT was planned to consist of four suites of nine trainee computer work stations connected through a local area network. The specification for this work was not precise, and it was recognized that there would be a need to refine the specification through the development of a prototype. Work under the MPT SOW was to be

substantially completed by October 1993. The MPT SOW was subcontracted — with the Crown's approval — for \$9.8M.

The requirements for the ORTT portion of the contract had not been defined in 1991. In May 1991, the Crown entered into a cost-reimbursable contract with the prime contractor to complete an initial Requirement Validation Phase (RVP) of the ORTT. A fixed-price contract for the design and implementation of the ORTT was to be negotiated once the requirements were completed. The ORTT RVP had estimated milestone payments of \$3,502,788 and was to be completed by March 1992. One of the initial key tasks of this phase was the completion of the Objective Media Analysis Report (OMAR) — a report to identify the training requirements to be addressed within the ORTT.

In August 1992, the ORTT RVP portion of the CST contract was amended to a firm fixed-price contract of \$7,974,600, with a delivery date of April 1993. The contract change was initiated to address the reality that the initial schedule for this phase of the work was no longer considered to be achievable. As well, by this time it was considered appropriate to establish a fixed price for the RVP, as the scope of work had been refined sufficiently to allow both parties to accept such an arrangement. The contract change also adjusted milestones to align with the new price and schedule.

In early 1993, a senior level review of the projects concluded that both projects were experiencing difficulties. The joint management group considered three options:

- continuing the project as it was currently contracted. This was not considered to be feasible or likely to succeed;
- termination of the project. This option would have meant that the objectives of the project
 would not have been fulfilled, any value generated through the costs that had been incurred to
 date would have been lost, and there would likely have been termination costs. As well, the
 PMO believed that termination of the CST contract may have had adverse effects on the
 delivery of the frigates; or
- restructure the work and create a new contract which would allow the objectives of the project to be satisfied through a realistic workplan and within the existing budget ceiling.

The decision taken at that time was to endeavour to restructure the contract in order to allow the work to proceed. A Show Cause letter was issued to the prime contractor on 3 March 1993. On 20 April 1993 the prime contractor submitted a Work Around Plan (WAP). The Crown accepted the WAP, but concluded that detailed Statements of Work (SOW) needed to be developed. In order to provide funding which would allow for the development of revised SOWs, interim contracts were established. In June 1993, separate interim contracts were issued for the MPT and ORTT concurrent with the suspension of the CST contract. During the interim contract period, two important decisions were made by the CPF PMO regarding the scope of the CST project.

First, a decision was made that maintenance trainers would be built for a total of 12 combat systems. Second, in response to a MARCOM training policy revision which mandated Naval Combat Operations Trainer (NCOT) to be responsible for Level 1 and 2 training, the ORTT was defined to include only Level 3 and 4 training. Some of the work to be performed by the prime contractor under the MPT interim contract was subcontracted to a Canadian firm, who in turn subcontracted work to a U.S. firm.

In November 1993 the suspension order on the original CST contract was rescinded and an amendment to the CST contract was approved. This amendment removed the MPT SOW from the CST contract and increased the value of the ORTT RVP from a fixed price of \$7,974,600 to a fixed price of \$10,481,939, plus a price not to exceed \$1.5M for proof of concept work. The completion date was also amended from April 1993 to November 1994. This new CST contract also included several "off ramps" in the event that the prime contractor was unable to perform.

At the same time, a second contract was established for the MPT. This contract, awarded to the prime contractor, established a firm fixed price of \$11,784,428. The scope of the new contract — or what is referred to as the "restructured" MPT contract — was reduced significantly to include the development of a single prototype trainer for one of the combat systems — the Hull Mounted Sonar Simulator (HMSS). Some of the work under the MPT SOW was subcontracted by the prime contractor, with the Crown's approval, to a Canadian firm which in turn subcontracted work to a U.S. firm. As with the new CST contract, the restructured MPT contract also included "off ramps".

Included in the ORTT and MPT contract amounts was a financial settlement totalling \$7,244,692. From May 1, 1991 through to April 30, 1993 the prime contractor incurred costs of approximately \$8.86M, which it was unable to recover according to the milestone billing schedule specified in the original CST contract. Although work had continued against the original SOW, milestones which would have allowed payments to be made had not been achieved. In order to bring the original contract to closure, the settlement payment was negotiated to compensate the contractor for the work which had continued as the contracting difficulties were addressed.

In December 1994 a prototype MPT for the HMSS was delivered to the Crown and accepted. Since that time, a total of five MPT trainers have been delivered. All work performed under the MPT since the Fall of 1993 has been performed to the Crown's satisfaction and in accordance with the contract.

In June 1995 the RVP of the ORTT was completed, and the Preliminary Design Phase has subsequently been completed. At the time of completion of fieldwork for the review, the cost of the ORTT component was \$12.1M. To September 1995 the total cost of the CST project was \$25.6M and it was anticipated that the project would be completed within the \$90M budget.

In summary, this project has been fraught with difficulties, and the contract management challenges have not been trivial. In reviewing the decisions taken by management along the way, it is important to consider the circumstances at the time.

Exhibit 2.1 on the following page provides a summary of key project events.

Exhibit 2.1 - Summary of Project Events

| Date | Project Event |
|------|--|
| 1987 | Approval of SRPII |
| | In 1987, construction of an additional six frigates was approved through the SRPII project. \$ 102 M was set aside for CST training. This figure also included approximately \$9M for marine systems training. |
| 1989 | BT Study Completed |
| | A study was initiated in 1988, referred to as the Behavioural Team Study to analyze training requirements. The guidelines and assessments presented in this study led to the approval of the CST project by the CPF Interdepartmental Senior Review Board in January 1990. |
| 1990 | Approval of the CST Project |
| | The Interdepartmental Senior Review Board approved the CST project in 1990 |
| | Proposal Submission |
| | A proposal was submitted by The Prime Contractor in August 1990. |
| 1991 | |
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| | Access to Information Act |
| | S. 69(1)(g)re(a)(c) |
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| | Contract Award to The Prime Contractor |
| | On May 2, 1991 a contract was awarded to The Prime Contractor. |

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|------------------|--|
| <u>Date</u> | Project Event |
| 1991 (cont'd) | Subcontract |
| | On May 8, 1991, The Prime Contractor entered into an agreement with a subcontractor to subcontract work to be performed under the MPT component of the work. The value of the subcontract was \$9.8 million. |
| | On Site Management Team Established |
| | The Crown installed an On-Site-Management team at The Prime Contractor's headquarters. This was to facilitate the review and acceptance of project deliverables. This team was to reduce the time required to complete technical reviews and provide technical advice to The Prime Contractor. |
| | Contract Change Proposals (CCP) |
| | CST CCP 1001 was raised to realign the project milestones and allow The Prime Contractor to bill for work completed. |
| | Contract Slippage |
| | By the fall of 1991, significant slippage had occurred under both the MPT and ORTT portion of the CST contract. |
| 1992 | Reduction to Subcontract |
| | On March 27, 1992 The Prime Contractor issued a Show Cause letter to the Subcontractor. On June 8, 1992 the Prime Contractor agreed to reduce the scope and value of the work to be performed by the subcontractor. The overall scope of the prime contract remained unchanged. |
| | Contract Change Proposals |
| ٠. | CCP 1003 was raised in order to realign milestones to allow The Prime Contractor to bill for work completed. |
| | Final MPT Payment |
| | By September 1992, The Prime Contractor had reached a point where they could no longer meet any deliverables to trigger milestone payments under the MPT. |
| | On Site Management Team |
| | In December of 1992, the On Site Management team was removed from The Prime Contractor facilities . |
| | |

| Date | Project Event |
|------|---|
| 1993 | New Management Personnel |
| | The following changes are made within the Crown: PM CPF, Senior Procurement Director for the CPF, PM MPT and PM ORTT. Within The Prime Contractor, Vice President, Naval Operations and PM CST programme. |
| | Senior Management Review |
| | In February 1993, a detailed review of the CST project status was conducted. Senior managers from both the PMO and The Prime Contractor were present. Both the PMO and The Prime Contractor concluded that the existing statement of work was no longer feasible. The Crown informed The Prime Contractor that a Work Around Plan would be required. |
| | Show Cause Letter |
| | A Show Cause letter was issued by the Crown to The Prime Contractor on March 3, 1993 requesting a Work Around Plan (WAP) be submitted by The Prime Contractor within 30 days. |
| | Work Around Plan |
| | The Prime Contractor presented a WAP to the Crown in April 1993 for both the MPT and ORTT. The Crown concluded that the WAP presented by The Prime Contractor was the most viable approach to completing the CST contract. The WAP proposed significant changes to the technical approach to the work, including the use of an authoring system which by this time was licensed to a Canadian company. Therefore, the original contract was suspended and interim contracts put in place to fund the necessary WAP activities and contract change activities. |
| | Involvement of Canadian Subcontractor |
| | On May 14, 1993 The Prime Contractor entered into a partnering agreement with a Canadian firm for the MPT interim contract. |
| | Interim Contracts |
| | Separate interim contracts for the ORTT and MPT were put in place in June 1993. The interim contracts defined the revised scope of work, and the related financial arrangements. The contract limit for the ORTT was \$800,000 to be billed on a cost reimbursable basis. The contract limit for the MPT contract was \$900,000 also to be billed on a cost reimbursable basis. The terms and conditions of both interim contracts allowed The Prime Contractor to recover costs incurred between May 1, 1993 and the date of the interim contract. |
| | On July 16, 1993 The Prime Contractor issued a Purchase Order for \$393,000 to the Canadian Subcontractor for work to be completed under the MPT interim contract. |

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|------------------|---|--|--|--|--|--|--|
| Date | Project Event | | | | | | |
| 1993 (cont'd) | Scoping of the MPT and ORTT | | | | | | |
| ` , | Prior to the commencement of the interim contracts, The Prime Contractor was instructed by the PM CPF to limit the scope of ORTT to Level 3 and 4 training. The Prime Contractor was also instructed that 12 courseware modules would be developed under the MPT portion of the project, reflecting the recommendations of a joint PMO CPF MARCOM study conducted in July 1994. | | | | | | |
| | The Restructured Contracts | | | | | | |
| | In November 1993, CCP 6003 was approved and signed by the Crown and The Prime Contractor. Key features of this CCP were: | | | | | | |
| | MPT and ORTT were split into separate contracts; | | | | | | |
| | the MPT contract was reduced in scope to produce a prototype for one of the combat sub | | | | | | |
| | systems. The contract price was also reduced to \$11.8 million; | | | | | | |
| | the ORTT contract was increased to \$11.98 million; | | | | | | |
| | a settlement of past unrecovered costs for an amount of \$7.2 million. Payment of these costs was | | | | | | |
| | prorated over the new payment schedule. A waiver was signed by the Crown and The Prime | | | | | | |
| | Contractor with respect to activities relating to the first contract. | | | | | | |
| 1994 | Submission of Proposals | | | | | | |
| | Proposals were received from the Canadian Subcontractor and a U.S. firm to carry out the development of the Surface Simulation Engine. | | | | | | |
| | Termination of the U.S. Subcontractor by the Canadian Subcontractor | | | | | | |
| | In April of 1994, the Canadian Subcontractor terminated the U.S Subcontractor and repossessed all MPT work from the U.S. to their offices in Canada. Termination of the Canadian Subcontractor by The Prime Contractor | | | | | | |
| | On August 19, 1994, Canadian Subcontractor locked out The Prime Contractor from their facilities. August 22, 1994 The Prime Contractor terminated their agreement with The Canadian Subcontractor and seized the MPT equipment and software on September 18, 1994 under the authority of a court order. At this time, the prototype was still incomplete. Three financial claims made by The Canadian Subcontractor subsequent to their termination were rejected by the Crown. | | | | | | |
| | Finalization and Acceptance of MPT Prototype | | | | | | |
| | The Prime Contractor completed work on the prototype, and a certificate of acceptance was issued by the Crown on December 7, 1994. | | | | | | |
| L | | | | | | | |

| Date | Project Event |
|------|--------------------------|
| 1995 | |
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| | Acess to Information Act |
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3. SUMMARY OF KEY FINDINGS

Results of the Examination of Allegations

As indicated in section 1 of this report, a key objective of the review was to examine 15 allegations that were made regarding contract management practices for the CST. Exhibit 3.1 on the following page provides an overview of the results of this examination.

As shown in the summary chart, only Allegation no. 10, which suggests that one of the sub-contractors did not bring added value to the project, was found to have some merit. A major consideration in this contracting decision was the need to meet the Canadian Content provisions of the contract. The PMO acknowledges that at the time that the prime contractor entered into an agreement with the specific sub-contractor, it was clear that the sub-contractor did not have relevant experience and would be significantly challenged to perform the work. This proved to be the case, and difficulties were indeed encountered. When the prime contractor seized the prototype which was produced by the sub-contractor, a further 3 months of work were required to make the product functional.

In spite of these difficulties, the ultimate product of this work was delivered on time in accordance with the amended contract.

Appendix 1 provides the details of the disposition of each of the 15 allegations.

Key Findings

The key findings which resulted from the examination of issues which came to light through the exploration of the specific allegations are presented below.

Exhibit 3.1 - Summary of Disposition of Allegations

| CST Allegation | CST Allegation Description | Conclusion |
|-------------------|--|------------|
| CST #1 | The training material developed by (name removed - the prime contractor) did not match the equipment on board the ship. | No Merit |
| CST #2 | MPT contractual payments of approximately \$4 million were made to (name removed - the prime contractor) in the absence of the Crown receiving contracted deliverables. | No Merit |
| CST #3 | (Name removed - the prime contractor) billed \$200,000 for the preparation of a Contract Change Proposal which had been prepared by the Project Management Office (PMO) of the Canadian Patrol Frigate (CPF) Project. (Name removed - a member of the PMO) refused to authorize but (name removed - a more senior member of the PMO) finally authorized payment. When (name removed - the first member of the PMO referred to above) saw the invoice he refused to approve it for payment because he, on behalf of the Crown had prepared the CCP. | No Merit |
| CST #4 | After the Crown found (name removed - the prime contractor) in default after the first work around, (name removed - the prime contractor) was permitted to continue with the contract provided that it contracted with (name removed - a specific sub-contractor). | No Merit |

Exhibit 3-1

| CST | | |
|------------|--|------------|
| Allegation | CST Allegation Description | Conclusion |
| CST #8 | After finalization of contract amendment #4 for the MPT, (name removed - the prime contractor) complained to (name removed - a senior DND official) that an additional \$1.8 million was required. (Name removed - the senior DND official referred to above) instructed (name removed - a senior member of the PMO) to have the contract value increased. (Name removed - the senior DND official) is alleged to be closely involved with (name removed - a senior official with the prime contractor), (name removed - the senior member of the PMO referred to above), (name removed - a representative of PWGSC) and (name removed - a senior official of the prime contractor). | No Merit. |
| CST #9 | PWGSC and PMO CPF not safeguarding intellectual property being developed for the Crown under the CPF contracts. | No Merit. |
| CST #10 | Concerns that (name removed - a specific sub-contractor) did not bring value added features to the project. | Merit. |
| CST #11 | The IV & V contract was directed by the PM MPT to a foreign company seeking to establish a Canadian company. (December 1993) | No Merit. |
| CST #12 | The PM MPT and (name removed - a sub-contractor) produced a surface simulation engine (SSE) with a working specification prototype. The sub-contractor presented the work as its own whereas (name removed - an individual) and the PM MPT both claimed they had conceptualized the process. (May 1994). | No Merit. |

| CST | | |
|------------|---|------------|
| Allegation | CST Allegation Description | Conclusion |
| CST #13 | (Name removed - a representative of the PMO) told (name removed - an individual), (name removed - an individual), (name removed - the representative of the PMO) would cancel all the prime contractor's CPF contracts. The Crown and the prime contractor had consistently known that there was a problem with the CST, but the \$700k monthly was being used to keep the prime contractor open in Montreal. | No Merit. |
| CST #14 | The prime contractor arranged contracts between DND and (name removed - the prime contractor) and their subcontractors in such a manner that they were able to bill and collect funds from DND but not pay their subcontractors. (Name removed - the prime contractor) had used this arrangement to put 23 subcontractors out of business so that the prime contractor could obtain control of these company's software products. | No Merit. |
| CST #15 | Sub-contractors' compliance with contract, and in particular intellectual property was not determined. | No Merit. |
| | | |

Scope and Cost of the CST Project

The CST project and in particular the MPT portion has undergone significant descoping during contract revisions.

The following matters were noted in our review of the MPT component of the project:

- there has been a significant reduction in the scope of the MPT component of the CST project (from training on all combat systems to 12 named systems); and
- the cost of the developing computer based training for the maintenance of the combat systems exceeded the original fixed contractual amount of \$18.79 million.

Further details are provided below under each of the above headings.

Descoping of the MPT Component

The CPF PMO has stated that the Navy will receive all of the training material that it requires from the project. However, contractually the MPT has undergone major descoping. This conclusion is based on the following facts:

- the selected basis of payment for the MPT portion of the contract is a firm fixed price of \$18.791 million. Firm fixed price contracting requires a well defined scope;
- the original CST contract stated that purpose of the MPT component was "...to teach the ships' personnel the maintenance procedures for the CPF combat systems". Section 3 of the MPT System Specification indicates that the CPF Combat Systems consist of 37 sensor, weapon navigation, communication and command and control systems. Contractually, the prime contractor was required to develop training for the maintenance of the 37 combat systems. As the project progressed, this number was reduced to 12; and
- documents generated by number of members of the PMO during the course of the project refer to descoping the project as the option selected when the contract was restructured.

Cost of the MPT Component of the CST Project

The cost of the MPT component of the CST project was initially negotiated with the vendor (name removed 26 April 2000) for a firm fixed cost of \$18.791 million. At the time of our original review this amount had not yet been exceeded, but approximately \$15.7 million had been spent for the development of four MPT trainers. Since that time the remaining eight trainers have been contracted for and the cost of the MPT portion of the CST project is approximately \$23 million.

Transparency of Contract & Project Changes

We found the transparency of contract and project changes on the CST project to be poor, particularly in the areas of changes in scope (discussed in the previous section) and payments resulting from contract restructuring. Furthermore, PWGSC has exceeded its approval authority on a number of occasions throughout the CST project including when it negotiated and paid a \$7.2 million financial settlement to the prime contractor.

In 1993, the Crown agreed to a \$7.2 million financial settlement with the prime contractor. Payment of this settlement amount was made under the restructured November 1993 CST contracts. Accordingly, the scope of this review included an assessment of whether:

- the events surrounding the financial settlement and restructuring of the CST contract were disclosed to senior federal government officials; and,
- PWGSC as the contracting authority for the CST project had the authority to negotiate and pay this settlement.

The detailed findings are outlined below.

Disclosure

Although in 1993 PWGSC held discussions with Treasury Board Secretariat (TBS) officials regarding the need to seek TB approval, documentary evidence does not support a conclusion that the PMO disclosed all necessary details regarding the financial settlement and the restructured contracts to enable TBS to fully understand the implications of the various contractual actions. We are of the opinion that the contract changes reflect a significant change from the original intent of the project and Treasury Board Ministers should have been made aware of these changes and given the opportunity to re-visit their original decision.

In 1991 the PMO was given the authority to contract with the Prime Contractor for the supply of maintenance procedures trainers and an operations room trainer. The total cost was to be \$90 million dollars, consisting of a firm price of \$18.791 million for the MPT with most of the remaining balance being allocated to the ORTT. Both the Crown and the prime contractor have stated that significant problems were encountered in the first two years of the contract. The decision by the PMO in 1993 to continue with the CST project had significant implications including:

- negotiation of a financial settlement of \$7.2 million to be paid to the Prime Contractor;
- the Prime Contractor was relieved of its contractual obligation to deliver the MPT for a firm price of \$18.791 million and to deliver the ORTT RVP for a firm price of \$7.974 million; and

• continuation of a project which was exceeding time commitments and not producing deliverables required under the milestone plan.

Access to Information Act S. 69(1)(g) re(a)

In 1995, a briefing note was prepared by the PMO to the Minister of PWGSC. The purpose of the briefing was to provide background information on statements made by the press regarding the descoping of the CST project. We found that the information provided was not complete. For example:

Access to Information Act S. 69(1)(g)re(c)

- it was reported that The Prime Contractor incurred a \$2.5 million loss under the original contract. The Prime Contractor's loss was in fact \$1.6 million; and
- a statement was made that the MPT contract had not been descoped and that part of the work
 that was to have been performed under the contract was to determine which of the 37 systems
 were suited to computer based training. As indicated in an earlier observation, the MPT was
 contractually descoped.

We have also reviewed the minutes for the meetings of the Senior Procurement Advisory Committee that were held from late 1992 through 1994. No reference was made in these minutes to the financial settlement or the implications of renegotiating the CST contract.

Authority

The financial settlement negotiated with The Prime Contractor was approved by the PWGSC contracting authority (Senior Director level). However, the amount exceeded the department's approval authority as set out in Directive 6001 Annex A of the PWGSC Supply Policy Manual. Furthermore, other instances were noted where approval authorities were exceeded. (Note that all references to PWGSC policy refer to policies in effect at the time the actions were taken.)

In 1993, two significant events took place with respect to the CST contract. First, CCP 6003 was approved by the PWGSC contracting authority for the CST. This amendment deleted the MPT work scope from the original CST contract and essentially made it into a contract for the ORTT RVP for a firm fixed price of \$11,981,939. CCP 6003 also gave approval for \$2,681,935 in payments to the Prime Contractor for costs it had incurred in completing the ORTT RVP deliverables which it had been unable to recover according to the original method of payment.

Second, a new contract for an MPT Prototype Phase was established for a firm fixed price of \$11,784,428. Included in this contract price was \$4,562,757 million in payments for costs incurred by the Prime Contractor in completing the MPT deliverables which it had been unable to recover according to the milestone billing schedule included in the original contract.

CCP 6003 amending the original contract into an ORTT contract and the new MPT contract were approved by the PWGSC contracting authority (Senior Director level) for the CST project. However, in our opinion, Treasury Board approval should have been sought as the individual value of the MPT and ORTT financial settlements exceeded departmental contracting limits for amendments to non-competitive contracts.

The details to support this conclusion are outlined below under separate headings for the MPT and ORTT.

ORTT Financial Settlement

Access to Information Act S. 69(1)(g)re(a)(c). In 1993 when CCP 6003 increased the RVP to a firm price of \$11,981,939, the contracting authority (Senior Director level) approved the CCP.

However, in August 1992, CCP 6002 was approved which changed the basis of payment of the ORTT RVP from cost reimbursable to a firm fixed price of \$7.974 million. As outlined in

Exhibit 3.2 below, CCP 6003 increased the value of a firm fixed price contract by \$2,507,339 without increasing the work scope.

Exhibit 3.2 - Increase in Cost of ORTT RVP

| Contract Component | Amount |
|---|---------------|
| ORTT Contract Value after CCP 6003 | \$11,981,939 |
| less: proof of concept work not previously included (increased scope from original) | (\$1,500,000) |
| Firm price after CCP 6003 | \$10,481,939 |
| Firm price after CCP 6002 | 7,974,600 |
| Increase | \$2,570,339 |

The contracting authority (Senior Director level) did not have the approval authority to approve CCP 6003 for the following reasons:

- Directive 6001 Annex B Appendix 1 of the Supply Policy Manual indicated that the maximum amendment value that could be approved departmentally at that time was \$1,000,000 for non-competitive contracts. The value of the settlement portion alone exceeded this amount.
- Directive 6001 Annex A of the Supply Policy Manual states that if additional risk or liability is transferred to the Crown, the contract amendment shall be authorized at or above the original approval level (which in this case was the TBS).

MPT Financial Settlement

In November 1993, a new contract was issued to the Prime Contractor on a non-competitive basis for the MPT Prototype Phase. The contract was issued for a firm fixed price of \$11,784,428. Included in this amount was payment of \$4,562,757 relating to the MPT financial settlement. The contracting authority did not seek Treasury Board approval for this payment on the basis that the amount of the new contract was within the \$18.791 million approved by Treasury Board. We do not agree with this assertion.

The fact that the financial settlement could be paid within the original dollar value approved by Treasury Board is not relevant. What is relevant is that additional payments of \$4,562,757 were approved by PWGSC without any increase in the scope of the work to be performed. Treasury Board approval should have been sought as the value of the financial settlement exceeded departmental contracting limits for amendments to non-competitive contracts. In addition, since the Crown was increasing a firm price contract without increasing the scope of work, additional

risk or liability was transferred to the Crown which, in accordance with policy, requires authorization at or above the original approval level (in this case TB).

Other Findings

During our review of the contracting practices surrounding the CST project, other instances were noted where PWGSC exceeded its approval authority. The detailed findings are outlined below.

Approval of CCP 6002

CCP 6002 approved at Senior Director level should have been approved by the Deputy Minister in accordance with Directive 6001 Annex A Para. 8 of the PWGSC Supply Policy Manual which states that if the contract was approved by Treasury Board, an amendment to provide for firm rates to replace a price to be negotiated must be approved by the Deputy Minister.

Slippage of Firm Delivery Dates - ORTT

Under the terms of the original CST contract, the Requirements Validation Phase was to be completed within 10 months of the contract award date (May 1, 1991) and the entire ORTT was to be delivered completed within 48 months of the contract award date. In 1993, senior managers within the PMO participated in a detailed review of the ORTT project. The review concluded that significant problems existed within the ORTT and ultimately concluded that the work needed to be restructured. CCP 6003 was approved at the Senior Director level and, aside from increasing the cost of the RVP, it also extended the delivery date of the RVP to 59 months after the contract award date. The scope of the work to be performed under the fixed price portion of the RVP phase was not increased.

Directive 6001 Annex A of the Supply Policy Manual states that if a contract amendment results in additional risk to the Crown then the amendment must be approved at or above the original contract approval level, in this case Treasury Board. One of the examples cited of increased risk is slippage, by the contractor, of firm delivery dates. Therefore, the slippage in the ORTT RVP delivery dates was sufficient cause to seek Treasury Board approval in 1993. This approval was not sought.

Approval of the New MPT Prototype Phase Contract

In November 1993, a new contract was approved at the Senior Director level within PWGSC for a firm fixed price of \$11,784,428. Treasury Board approval of the contract was not sought on the basis that the amount of the contract was still within the \$18,791,709 approved by Treasury Board in 1991. However, in our opinion Treasury Board approval was required for the following reasons:

• the original Treasury Board Submission gave approval to enter into a contract with the Prime Contractor. The new MPT contract was later described as an administrative change not requiring Treasury Board approval. This statement suggests that nothing materially changed other than the fact that the MPT was split away from the CST contract. However, in reality much did change. For example, the MPT was originally to be completed by October 1993. Under the new agreement, a single prototype system was to be delivered by December 1994. The contracting approach changed from a single production contract to a prototype phase contract and production phase contracts. Furthermore, the new MPT contract relieved the Prime Contractor of a contractual obligation to deliver the MPT for a firm price of \$18.791 million. Clearly, the MPT Prototype contract was a new contract that was issued to the Prime Contractor on a sole sourced basis and exceeded the department's approval authority for noncompetitive contracts.

Payments

During the preliminary assessment phase of this review it was noted that not all of the deliverables required under the original CST contract were submitted in final by The Prime Contractor. Therefore, the scope of this review included an assessment of the justification for making milestone payments under the original, interim and restructured CST contracts. Material discrepancies in the payments area noted during the field work have since been clarified by the PMO.

Value for Money

A number of factors on the CST project detracted from the Crown receiving value for money.

The scope of this review of contract practices on the CST project did not include a value for money audit but did require comments on those factors which may have detracted from the Crown receiving full value for money from the project. During the review a number of these factors were identified by the review team, members of the PMO and members of the Prime Contractor's staff. The major factors are:

The use of a fixed price contracting strategy on a project that was what many consider to be
developmental in nature resulted in disagreements between the Contractor, the Crown and
members of the Project Team. Fixed price contracting limits risk when the scope and
requirement are clear. The scope and requirements of the CST project were not clear at the
time of contracting.

- Industrial Regional Benefits requirements resulted in subcontracting to firms which were not the most qualified.
- The use of a Total System Requirement contract with a full On-site Management Team, raising the possibility of substantial direction by the Crown and interference claims by the contractor.
- The addition of settlement costs to milestone payments in ongoing contracts, although
 ensuring the contractor continued work, led to subcontractors and others accusing the PMO
 of paying the Prime Contractor excessive sums for what was being delivered under the
 contracts.
- The payment of multiple markups on the hardware procured for the project.

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DISPOSITION OF ALLEGATIONS

Allegation #1: Training Material

The training material developed by (name removed - the prime contractor) did not match the equipment on board the ship.

Conclusion

This allegation does not have any merit. The scope of our examination of this allegation focused on whether training material delivered under the CST contracts matched the equipment on board the ship. At the time of our fieldwork, this was found to be the case. The maintenance procedure trainer for the Hull Mounted Sonar System had been delivered to and fully accepted by the Crown.

Allegation #2: Validity of Payments Made

MPT Contractual Payments of approximately \$4 million were made to (name removed - the prime contractor) in the absence of the Crown receiving contracted deliverables.

Conclusion

This allegation has no merit. Our review consisted of an examination of the payments made for the contracted deliverables produced throughout the life of the MPT contract. No material discrepancies were identified.

Allegation #3: Funding of Contract Change Proposals

(Name removed - the prime contractor) billed \$200,000 for the preparation of a Contract Change Proposal which had been prepared by the Project Management Office (PMO) of the Canadian Patrol Frigate (CPF) Project. (Name removed - a member of the PMO) refused to authorize but (name removed - a more senior member of the PMO) finally authorized payment. When (name removed - the first member of the PMO referred to above) saw the invoice he refused to approve it for payment because he, on behalf of the Crown had prepared the CCP.

Conclusion

This allegation has no merit. Our review consisted of an examination of all contract change proposals under the original CST contract, the interim contracts and the restructured contracts. We did not find evidence to substantiate the claim that a member of the PMO prepared a CCP for which the prime contractor subsequently billed the Crown.

Allegation #4: Selection of the Authoring Tool

After the Crown found (name removed - the prime contractor) in default after the first work around, (name removed - the prime contractor) was permitted to continue with the contract provided that it contracted with (name removed - a specific sub-contractor).

Conclusion:

This allegation has no merit. Our review indicated that any influence that the Crown may have had in the selection of authoring tools was in the course of joint efforts to find suitable tools and expertise to bring to the project. There were not many alternatives at the time, and the joint project team concluded that the authoring system and the company that created it were necessary to allow the project to proceed.

Furthermore, the prime contractor was not found in default during the CST project.

Allegation #5: Selection of Subcontractors

(Name removed - the prime contractor) stayed with the MPT after the cease work order because it was the only way they could recover their \$11 million. The PM CPF insisted that the contract be arranged between (name removed - the prime contractor) and (name removed - specific subcontractors) raising the possibility that in the absence of this occurring the project would be cancelled. The primary thrust of the MPT project was to ensure that (name removed - the prime contractor) received payment with secondary consideration as to constructing a prototype that would work.

Conclusion:

We assume that this allegation is intended to suggest that the Crown was favouring a contractor, and influenced the selection of sub-contractors. This allegation has no merit.

There is no evidence of the Crown favouring a contractor. The Crown considered terminating the contract in June, 1993. However, rather than dealing with potential claims, a financial settlement was reached which cost the prime contractor \$1.6 million in unrecovered costs. As indicated in Allegation #4, the allegation regarding Crown influence of the selection of subcontractors is unsubstantiated.

Allegation #6: MOU between Sub-Contractors

(Name removed - a software vendor) had initiated an agreement with (name removed - a subcontractor) whereby (name removed - the sub-contractor) would be exclusive distributor of the (name removed - the software vendor) products in Canada. Subsequently, the PM MPT advised (name removed - the software vendor) that any work on the MPT project following the cease work order would be directed to them. This resulted in (name removed - the software vendor) renegotiating the MOU with (name removed - the sub-contractor) and charging the (name removed - the sub-contractor) \$500,000 for the execution of the agreement.

Conclusion

This allegation is without merit. There is no evidence to support the allegations that the software vendor was able to re-negotiate its MOU with the sub-contractor as a result of any actions taken by the Crown.

Allegation #7: Ratio of Canadians to Americans

(Name removed - the prime contractor) held the Combat Systems Trainer contract for the work to be performed in Canada. By June 1993 the ratio of Canadians to Americans on the project was 1:8.

Conclusion:

We assume that this allegation implies that the prime contractor did not provide sufficient Canadian Content to the project.

This allegation has no merit. During the summer of 1993, the ratio of Canadians to Americans was in fact about 7:1. The ratio of Canadians to Americans was also reviewed under both the MPT component of the original CST contract and the restructured MPT contract. At no point was the ratio close to 1:8.

Allegation #8: Increase to Contract Value

After finalization of contract amendment #4 for the MPT, (name removed - the prime contractor) complained to (name removed - a senior PWGSC official) that an additional \$1.8 million was required. (Name removed - the senior PWGSC official referred to above) instructed (name removed - a senior PWGSC member of the PMO) to have the contract value increased. (Name removed - the senior PWGSC official) is alleged to be closely involved with (name removed - a senior official with the prime contractor), (name removed - the senior member of the PMO referred to above), (name removed - a representative of PWGSC) and (name removed - another senior official of the prime contractor).

Conclusion:

This allegation does not have merit. This allegation implies that the prime contractor was able to secure additional funding for the CST project because of personal relationships that existed between senior executives within the prime contractor, DND and PWGSC. There is no evidence that the decision to amend the contract was influenced by personal relationships.

Allegation #9: Safeguarding of Intellectual Property

PWGSC and PMO CPF not safeguarding intellectual property being developed for the Crown under the CPF contracts.

Conclusion:

This allegation does not have any merit. Our examination of this allegation included an assessment of the appropriateness of the measures taken by PWGSC and the PMO to protect its intellectual property created under the CST project and to avoid claims against the Crown by third parties for unapproved use of their products. The scope of our examination included both the original CST contract and the restructured contracts. We found clear evidence that appropriate steps were taken to protect intellectual property.

Allegation #10: Value Added of a Specific Sub-Contractor

Concerns that (name removed - a specific sub-contractor) did not bring value added features to the project.

Conclusion:

This allegation has merit.

Detailed Findings:

A major consideration in this contracting decision was the need to meet the Canadian Content provisions of the contract. The PMO acknowledges that at the time that the prime contractor entered into an agreement with the specific sub-contractor, it was clear that the sub-contractor did not have relevant experience and would be significantly challenged to perform the work. This proved to be the case, and difficulties were indeed encountered. When the prime contractor seized the prototype which was produced by the sub-contractor, a further 3 months of work were required to make the product functional.

In spite of these difficulties, the ultimate product of this work was delivered on time.

Allegation #11: IV & V Contract

The IV & V contract was directed by the PM MPT to a foreign company seeking to establish a Canadian company. (December 1993)

Conclusion:

This allegation has no merit. It is true that a contract was directed by the PM MPT to a foreign company, but this transaction was conducted in full compliance with all relevant procurement policies. Whether or not the foreign company intended to establish Canadian operations at the time that the contract was awarded is not known and is not relevant, as there is no legislative or policy reason for this to be disallowed.

Allegation #12: Ownership of the Surface Simulation Engine

The PM MPT and (name removed - a sub-contractor) produced a surface simulation engine (SSE) with a working specification prototype. The sub-contractor presented the work as its own whereas (name removed - an individual) and the PM MPT both claimed they had conceptualized the process. (May 1994).

Conclusion:

We assume that this allegation is intended to imply that as a consequence of work carried out on this project, a private sector entity has retained something of commercial value.

This allegation does not have any merit. The provisions of Article J15 of the MPT restructured contract establishes ownership with the Crown of all intellectual property created under the contract. All of the parties identified in this allegation were either employees or contractors of the Crown under the MPT project when the SSE was conceptualized. According to the provisions of Article J15, any intellectual property created under the project belongs to the Crown. Therefore, the issue of who conceptualized the SSE is irrelevant.

Allegation #13: Payments to The Prime Contractor

(Name removed - a representative of the PMO) told (name removed - an individual) that if the prime contractor fired (name removed - an individual), (name removed - the representative of the PMO) would cancel all the prime contractor's CPF contracts. The Crown and the prime contractor had consistently known that there was a problem with the CST, but the \$700k monthly was being used to keep the prime contractor open in Montreal.

Conclusion:

This allegation has no merit. The billing schedule negotiated under the restructured contract did provide payments of roughly \$700,000 per month. However, our review of the prime contractor's audited financial statements for the 1991, 1992, 1993 and 1994 fiscal years indicate that throughout the contract period, the prime contractor was a profitable company with a positive cash flow.

Allegation #14: Payments to Subcontractors

The prime contractor arranged contracts between DND and (name removed - the prime contractor) and their subcontractors in such a manner that they were able to bill and collect funds from DND but not pay their subcontractors. (Name removed - the prime contractor) had used this arrangement to put 23 subcontractors out of business so that the prime contractor could obtain control of these company's software products.

Conclusion:

This allegation does not have any merit. There were four major subcontractors to the prime Contractor under the CST project. The contracts negotiated between the prime contractor and its subcontractors did not put its subcontractors at a disadvantage relative to the prime contractor's contract with the Crown. None of the subcontractors owned any relevant proprietary software products. Therefore, we concluded that the prime contractor could not have gained control of its subcontractors products.

It should be noted that the party making this allegation refused our request to meet with us to provide further details.

Allegation #15: Sub-Contractor Compliance to Intellectual Property Clauses

Sub-contractors' compliance with contract, and in particular intellectual property was not determined.

Conclusion:

This allegation does not have any merit. There is clear evidence that subcontractors fully complied with intellectual property rights.