National Defence / Défense nationale

Chief Review Services

Internal Audit

RESERVE INTEGRATED INFORMATION PROJECT/RESERVE AUTOMATED MANAGEMENT SYSTEM

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AUDIT SYNOPSIS

This report presents the results of an internal audit of the Reserve Automated Management System (RAMS), a component of the Reserve Integrated Information Project (RIIP). The overall project had the objective of improving the operational effectiveness of the CF Reserves by minimising the time spent on administration. The RAMS was intended to allow interfaces with CF Regular Force systems.

Recognising that the project had delivered a number of useful tools and services to the Reserves, in December 1997, the Department concluded that the project would not deliver the key functional capabilities within reasonable timeframes and cost. As a result, and following the expenditure of $65M, the difficult decision was made to discontinue the RAMS project. Subsequently, to ensure that the DND/CF has the benefit of lessons learned from this circumstance, the Chief Review Services was requested to audit the project.

It became apparent to the audit team that no single event or factor stands out as the unique cause of the requirement to cancel RAMS. Rather, a series of seemingly unconnected decisions and events were detrimental to success. Despite reasonable risk management plans, the project ultimately faltered in the face of unrealistic budgetary and timeline expectations dependent on the implementation of an untried procurement strategy.

The project was a pilot for an innovative procurement strategy developed by government and involving a risk and benefit sharing partnership between the public and private sectors. However, it is evident that this methodology had significant limitations; it increased the complexity of the project without offering envisaged advantages. This particular strategy has since been discontinued by government as improved practices have been introduced in response to studies emphasizing the low success rates experienced by organizations, public and private, in successfully delivering large information technology projects. We noted industry benchmarking statistics indicating that 31 per cent of large IT development projects are cancelled. Further complicating factors were that, in addition to piloting a new procurement strategy, the project was a pilot for a new system development methodology. It also had to interact with a number of Regular Force systems that were themselves undergoing changes. In view of these factors, it is evident that the project did not receive commensurate levels of support and attention within the Department.

Key difficulties experienced by the project were not all within the control of the project management team. However, weakness in the application of project management systems and a lack of follow through on risk mitigation strategies exacerbated the situation. Contracting systems and practices were also incompatible with the procurement and systems development approaches being tested by the project team. Further, warning signals were available to the

project team but were not raised to more senior management; the prevailing culture favoured trying to find solutions or making do. Oversight mechanisms did not act to challenge or draw out problems as they occurred.

This report outlines factors that contributed to the cancellation of the RIIP/RAMS project along with lessons learned and recommendations. It should be noted that the project precedes the introduction of new guidance and approaches defined in the recently published manual for the Defence Management System. For example, our more recent internal audit work has observed upon the successful application of an Evolutionary Approach whereby specific "go/no go" decisions are made relative to successive phases of project delivery. We are also aware of new initiatives being pursued by DND's Information Management Group to recognize and anticipate interdependencies between information management/technology projects. This was an issue which had impeded the progress of RAMS. Another positive development is that ADM(IM) is introducing a mechanism whereby selected information management projects will be subject to periodic independent review throughout the acquisition life cycle. On the matter of project oversight, the VCDS has directed that SRBs are to do their full job, and that the attendance is to be at a staff level commensurate with the program issues being discussed and resolved.

The lessons learned formulated by this audit should be of particular interest to project managers utilising new systems development, equipment acquisition and project management processes.

The requirement for a decision to cancel the project was unfortunate, but it was the right decision in this case. This action will also help to reinforce the position of project managers who are faced with problems which must be brought to the attention of more senior management.

ADM(IM) has since created a division devoted exclusively to IM/IT project delivery. A Project Delivery Management (PDM) discipline has also been created for the enhancement of skills and knowledge of project staff. Details of these and other initiatives are contained in Annex A of this report.

This report is intended to provide an assessment of aspects of project management as performed by the Crown. It is neither intended, nor designed, to provide any definitive judgements or conclusions with respect to the performance of contractors. Any comments concerning the contractor(s) is incidental to the primary focus of the review work and should be understood as such by the reader.

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PART 1 – INTRODUCTION AND BACKGROUND

THE AUDIT

After the cancellation of the Reserve Automated Management System (RAMS) portion of the Reserve Integrated Information Project (RIIP), the ADM(IM) requested that an audit be done to identify any lessons learned from the experience.

1.1 On 15 December 1997, acting Chief Information Officer (CIO), now the Assistant Deputy Minister (Information Management) (ADM(IM)) staff briefed the Department's Information Management Advisory Committee (IMAC) on the status of the RIIP project with a recommendation that the RAMS software development be cancelled. The project was deemed to be unaffordable and it was decided that making greater use of Total Force Systems, such as PeopleSoft, was the best approach. The IMAC agreed.

1.2 Subsequently, the ADM(IM) requested that an audit be performed to determine the factors leading to the project being unable to deliver the required product within budget and schedule. It was also requested that the audit provide "lessons learned" such that any necessary improvements can be made to project management processes so as to prevent the occurrence of similar situations in the future.

1.3 This report presents the results of that audit. In carrying out this work, the audit team has concentrated on factors that contributed to the cancellation of the RIIP/RAMS project. In this regard, the audit team was working with the benefit of hindsight and the RIIP/RAMS project staff may not have had the view of the events that we now enjoy.

THE PROJECT

The RIIP/RAMS was to address a deficiency, identified in 1990, to improve the operational effectiveness of the Reserves by minimizing the time spent on administrative tasks.

1.4 RIIP was an information technology project aimed at streamlining the management and administrative processes of the Reserve Force in five key areas: personnel administration, training, pay, logistic support and budgeting. The objective of RIIP was to improve the operational effectiveness of the Reserves by minimising the time spent on administrative tasks while maximising the time available for training. The Statement of Capability Deficiency for this project was initially approved in September 1990.

1.5 The product that RIIP was to deliver consisted of the Reserve Automated Management System (RAMS). The RAMS included infrastructure and application software that was to be custom built by a DND/Contractor team. The intent was to have the application software interfaced and/or integrated with appropriate Regular Force systems to provide the Reserves with the required functionality.

1.6 The RIIP/RAMS team was to plan and manage the project using Method/1 System Development Methodology – as a pilot project. In April 1993, using this approach, the project team indicated that the system would require 51 months, and $90M to implement.

The project was a pilot project for the use of Method/1 System Development Methodology and became a pilot project for the Common Purpose Procurement (CPP) gated acquisition strategy.

1.7 The Program Control Board (PCB) of the time deemed the $90M cost unacceptable and directed that the RIIP/RAMS be one of the 20 "pilot" projects across the federal government in the use of Common Purpose Procurement (CPP) as a gated acquisition strategy. PCB accepted the adoption of CPP as the contracting and management approach for RIIP in order to expedite the Project and to reduce overall costs. As a CPP project, DND and a private sector firm were to work as "partners" in defining requirements, and developing and implementing solutions.

1.8 The Common Purpose Procurement Framework "guidance/concept" document, published by Public Works and Government Services Canada (PWGSC) in 1993 provided primarily a general outline of how CPP was to operate with emphasis on the contractor selection process. Key CPP concepts such as partnering and risk-sharing were in the embryonic stages in terms of both definition and application.

The private sector partner was announced on 2 November 1993; work commenced immediately with a contract being signed in January 1994.

1.9 In October of 1993, after a technical evaluation of bids, three firms were selected to proceed to the later stage of evaluation - an oral presentation to a selection panel. On 2 November 1993, a preferred partner was announced and on 4 November 1993, the Contractor commenced work on RIIP with a management team of twelve.

1.10 On 21 January 1994, an initial contract was awarded to the successful partner at a value of $920,200 with an expiry date of 28 February 1994. Amendment No. 1 to the Contract extended the period of the Contract to 31 March 1994 with the addition of 16 Contracting staff (again essentially management) to commence work over the period of January, February and March, as well as an additional $425,000 in funding.

1.11 This initial contract was followed by eight other contracts of various values (the largest being approximately $27M) over the life of the project.

In November 1994, the final project budget was set at $79.3M, with expenditure authority of $38.9M.

1.12 After a number of revisions, the PCB at its meeting on 17 November 1994, set the project budget at $79.3M.

1.13 In March, 1996, DND sought Effective Project Approval. Over the previous months, the Treasury Board Secretariat had developed the Enhanced Management Framework for Information Technology Projects and it was directed that this be applied to RIIP. The Framework introduced the notion of "gating", or specific periods in time when the progress of the project would be assessed in relation to planned costs and schedule. In March l996, the project received expenditure authority up to $38.9M subject to the fulfilment of certain conditions by 30 June 1997. Subsequently, approval was received to proceed with the final phase of the project.

1.14 In l997, after a change in project management and a re-examination of the project, the project team determined that the project could not be completed with the approximately $15M remaining in the project budget – in other words more would be needed. Other options were examined and the ADM(IM) judged that the stated requirements could best be addressed within the context of the Regular Force financial, personnel, pay and supply systems as part of the overall Total Force Concept.

1.15 In December 1997, the project was cancelled with the concurrence of the IMAC. At the end of the fiscal year 1997/98 the RIIP project had expended approximately $65M.

PROJECT SUCCESSES AND ACCOMPLISHMENTS

Despite its cancellation, the RIIP/RAMS project delivered a number of useful tools and services to the Reserves.

1.16 The project team successfully installed computer hardware and software in approximately 350 Reserve Units and a functioning e-mail system – which has provided the Reserves with a useful communication link with the rest of the Department and the Regular Forces. The project team also developed a number of standards and system development techniques that could be used by others.

PART 2 – AUDIT ANALYSIS AND DISCUSSION

PROJECT CANCELLATION: CONTRIBUTING FACTORS

2.1 The DND RIIP team prepared well for the task they were to undertake. In particular, they prepared a sound risk assessment and management plan that should have helped to ensure success. The selection of the project to be a "pilot" for the use of the untried CPP, however, introduced risks associated with the private/public sector partnership that the team and DND were unable to adequately manage. Oversight mechanisms did not operate as intended, and early warning signs of budget, schedule and quality problems were not appropriately assessed and acted upon. We estimated that the overall impact of all these factors was not only significant schedule slippage, but also that DND incurred significant additional costs.

2.2 The lessons learned and recommendations are aimed at benefiting future projects, particularly those involving alliance/partnering arrangements with the private sector. They focus on:

- effective risk management;
- promotion of more independent, objective and strategic perspectives as well as action on the part of oversight bodies;
- improving corporate memory and management continuity; and
- illustrating issues which can affect the successful introduction of new/pilot acquisition methodologies.

2.3 The report views the first two issues as overarching factors contributing to the cancellation of the project. However, a number of other important contributing factors and complications are then presented.

OVERARCHING ISSUES

RISK mitigation strategies were planned, but not implemented.

2.4 At the outset, the DND RIIP team correctly identified the risks they would be facing and formulated sound risk mitigation strategies. However, these strategies were not implemented and risks were not routinely reassessed as the project progressed. Key elements such as a quality assurance framework and a configuration management framework were not produced. Further, unique risks associated with the application of CPP partnering arrangements were not addressed. Risks were formally reported on sporadically until June 1996 when formal risk management activities ceased.

OVERSIGHT MECHANISMS did not function as intended.

2.5 Oversight mechanisms such as the Senior Review Board (SRB) and Project Steering Committee (PSC) did not meet as frequently as one would have expected. The meetings were characterised by inconsistent attendance of designated members and by unstructured proceedings. Matters of significance were either not discussed or not resolved. We attribute this in part to the fact that standards are not in place relative to the information requirements of oversight mechanisms. Members were not provided with relevant project status information or analyses. Another factor is that these oversight mechanisms would not have had the benefit of recent progress made toward situating projects in a DND/CF Information Management Architecture and to recognize the interdependencies between individual projects.

2.6 As early as 1993, warning signals were available to key project personnel. These early signs pointed to the difficulties associated with establishing risk and benefits sharing arrangements with the private sector. Similarly indicated was the tendency for staffs to revert to traditional contracting approaches which were inconsistent with meeting the objectives of CPP. In 1995 and 1996, other warning signals were available as government participants in CPP became aware of its shortcomings. However, a number of concerns raised at SRB meetings were never re-addressed. Proposed meeting dates and agenda items raised at one SRB did not result in a meeting. Key issues, such as the need for RIIP to revise the Roll-Out strategy for the first Release were not assigned to anyone for resolution.

EARLY WARNING SIGNALS of impending problems were available to key personnel early in the evolution of the project and throughout the life of the project. Warning signals came from within DND and the project team, from government working groups and from other agencies.

2.7 A number of warning signals of impending difficulties were presented to DND staff at various levels:

- In December 1993, two RIIP team members participated in a CPP Working Group. This group reported that difficulties and delays in the pilot CPP projects were attributed to pricing methodologies, terms and conditions in contracts that should apply and a tendency for Crown Contracting Officers to apply standard contracting tools contrary to certain elements of the CPP methodology.

- Two independent reports raised during the Vendor Selection Process and available on January 1994,

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- Contract Amendment No. 1, in February 1994, deferred or cancelled key risk mitigation deliverables without commensurate replacements.

- In April 1994, members of the Project Authority Committee wrote to the RIIP Project Leader and other senior managers with responsibility for RIIP expressing concern that, at the rate of spending under the CPP methodology, RIIP would soon run out of money for the current phase.

- These concerns were confirmed by the Contractor Project Manager's Report of 30 May 1994. The Status Report documented that, as at the end of March 1994, contracted Professional Services had actually cost DND $1.24M relative to $860,000 planned.

- A December l994 PWGSC Audit and Evaluation Branch report on *Common Purpose Procurement – Risk Assessment and Management Framework* stated that the support of the contracting authority is essential to effective public/private partnership arrangements and recommended that a contracting expert become a fully participating member of project management teams employing the CPP methodology.

Note: a PWGSC representative has emphasized that the procurement method is only one of 14 interdepartmental factors affecting opportunities for project success; dated 21 Mar 01.

- PWGSC Audit and Evaluation Reports dated January 1995, found that none of the Government's experimental methods of procurement (including CPP) were suited to fostering success. No CPP pilot project was able to establish effective partnering arrangements between a supplier and the Crown. All resulted in the Crown retaining 99 per cent of the risk and paying suppliers on what essentially amounted to a cost plus basis.

- In June 1995, an ADM in PWGSC wrote to DND expressing concerns about the CPP process. He suggested that the business case be revisited, and raised the possibility that the "off-ramp" be considered. The DND response was that the expressed concerns did not reflect DND's actual experience to that point in time with RIIP.

- In March 1996, the TBS advised that:

> *"Despite DND assurances on the viability of RIIP, TBS remains very concerned about the potential for serious overruns or failure in the delivery of the system solution…"*

2.8 It is not clear why problems were not escalated earlier and why early warning signs were not acted upon. We have had continuing concerns relative to the capacity of oversight mechanisms, particularly SRBs, to objectively challenge project management teams. This can be exacerbated by reluctance on the part of project teams to brief on problems and to seek advice. It is further difficult to determine if there is genuine receptivity to such admissions.

2.9 We noted that nine Senior Review Board meetings were convened for this project, over the period 1990-97. However, only one of the nominated Board members attended the meetings on a consistent basis. Others were usually represented by different subordinates. (It is noteworthy in this respect that, in March 1999, the VCDS directed that attendance at SRBs be at a staff level commensurate with the program issues being discussed and resolved.) Matters of significance were often not brought formally to the SRB's attention, and when they were, it was not in a timely manner. Timely attention was not brought to items of risk, cost control, contingency funding and project organization. Certain concerns which were raised were not addressed at subsequent meetings or necessarily assigned to anyone for resolution. As such, this oversight process was characterized by a lack of focused attention, continuity and follow-through.

OTHER KEY CONTRIBUTING FACTORS

CORPORATE MEMORY was affected in that successive project managers did not have the benefit of a clear project management trail.

2.10 Although the RIIP project experienced the normal military arrivals and departures due to the posting cycle, changes in key project personnel were particularly frequent and, in some cases, occurred at crucial points. The project was assigned to four different DND project managers and saw three different Contractor project managers.

2.11 This audit encountered a great deal of difficulty in locating information to reconstruct project events. Very little information was available from the Project Office. Documentation and data concerning RIIP had to be obtained from a variety of sources within and outside of DND.

FINANCIAL MANAGEMENT - although an appropriate module was developed at cost, it was not used on an ongoing basis.

2.12 We observed that appropriate financial systems were developed but were not used. Consequently, information was not readily available to assist successive DND project managers to monitor project progress and to achieve the project's financial objectives. This, coupled with a lack of other project information, would have made it difficult for incoming project managers to become quickly situated and "up to speed". Financial information presented to senior management did not provide key data that would have improved the visibility of costs and progress. More specifically:

- A comprehensive financial plan, matching the resource requirements (financial, human, physical) with contract deliverables was not evident in project documentation.

- Oversight bodies did not receive forecasts of project completion with sufficient detail concerning the remaining work and associated costs.

- The Project did not request the release of contingency funds, yet in excess of $2M of these funds were expended.

2.13 The Project/Change Control Board did not consider the availability of funding as a constraint in the acceptance or rejection of Change Requests and nearly $4M in Change Requests were approved without appropriate consideration of the impact on the funding envelope of the Project.

ANOMALIES IN THE PARTNER SELECTION PROCESS detracted from assurance that the most appropriate partner was chosen. The same rigour was not applied in each of the selection phases and a key "reality check" was not carried out when the results of two significant selection phases were inconsistent.

2.14 The Common Purpose Procurement Framework "guidance / concept" document, published by PWGSC in 1993, provided a general outline of how CPP was to operate with emphasis on contractor or partner selection being a key to success.

2.15 The selection process was a three phased approach. The first phase was a technical evaluation that resulted in a short list of possible partners who then participated in the next phase that was a question and answer working session – where the short-listed vendors prepared for the final phase. The final phase was an oral presentation to a panel. Following that, a successful candidate was to be selected and an initial contract negotiated.

2.16 The selection and evaluation criteria outlined in the Request For Proposal were to be used in assessing the bidders in both the Technical Evaluation and Oral Presentation. The Oral Evaluation Panel was not, however, as rigorous as the Technical Evaluation Team in the application of Evaluation or Selection criteria.

2.17 Furthermore, where the results of the oral presentation were inconsistent with the results of the technical evaluation, a necessary "reality check" was not carried out to ensure that the basis for the inconsistency in ranking was appropriately documented. This would also have provided a basis for a majority of the selection panel members, and in particular the independent members, to assess the explanation of the inconsistency.

2.18 The Panel had an independent member who submitted a report. In addition, an auditor from Consulting and Audit Canada (CAC) monitored the overall process and submitted an independent report. All of this information would have been useful in selecting the successful partner.

2.19 Although the independent reports attested to the compliance of RIIP with the letter of the Vendor Selection Process, they highlighted anomalies in the process used by the Oral Presentation Panel. Because the winning vendor was announced immediately following the completion of the Oral Presentation on 2 November 1993 and the independent reports were not available until February 1994, these key independent opinions were not considered.

ROLES AND RESPONSIBITLITES were not fully understood and a signed contract was not in place before the commencement of work. This resulted in inappropriate staffing of the project office by the private sector partner and ultimately, a reduction in value for money.

2.20 On 2 November 1993, following the candidates' Oral Presentations included in the proposal evaluation process, the winning bid was announced. On 4 November 1993, the contractor commenced work in DND with a management team of twelve. Work commenced almost three months before a written agreement was produced on the 21 January 1994 and prior to PWGSC's receipt of the independent reports concerning the preferred vendor, contract negotiations and the CPP/RFP evaluation process. For what was perceived to be a streamlined process, these independent reports were far too late to be useful.

2.21 Guidelines regarding actual implementation issues such as co-operative project management were sparse. Key CPP concepts such as partnering and risk-sharing were in the embryonic stages in terms of both definition and application. In particular, the policy, legal and operational implications of proposed partnership and risk-sharing arrangements were unclear and generally not well understood within the bureaucracy.

2.22 In the beginning, the private sector partner provided a significant number of resources at the project management level. Notwithstanding the lack of a contract laying out what each party would be responsible for, this staff did what it understood to be needed.

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CONTRACTING PRACTICES were not always consistent with the CPP methodology. The Public Service embarked on the CPP process without appropriate training and compatible tools for effective risk sharing. Reversion to traditional contracting methods added to the costs of the project.

2.23 Crown Contracting Officers were faced with a new contracting requirement – one that required innovative contract clauses or techniques to encourage risk and benefits sharing and provided incentives for the private sector to achieve (or better) cost and schedule targets and for the public sector to help them do it. Without the requisite training, coaching or tools to guide them in meeting the objectives of the CPP methodology, contracting offices tended to apply traditional contracting methods which militate against the concept of risk-sharing.

2.24 The contracting strategy applied to RIIP demonstrated the tendency of Crown Contracting Officers to apply standard contracting tools contrary to certain elements of CPP methodology. In particular, the pricing strategy consisted primarily of traditional non-performance based standards such as fixed ceiling process and per diem rates. These were inconsistent with the CPP approach and, by our estimation, added significantly to the costs of the project.

2.25 In addition, there were no formal clauses included in the contracts that articulated risk and benefit sharing arrangements. Overall, the RIIP contracting strategy did not provide industry with incentives to achieve efficiencies in cost and schedules and resulted in the Crown bearing the majority of project risks.

TESTING was not effective as despite incomplete testing or deficient deliverables, the project proceeded, thereby deferring fixes and costs.

2.26 System and integration testing were not effective because of a lack of resources and time. This resulted in costs being increased and pushed into future periods. Products that did not meet requirements were accepted with assurances that the deficiencies would be addressed later; a risky circumstance given weaknesses in management continuity. At one point, the DND project director wrote:

> *The test results concluded that Release 1, in its current form, does not meet the aim of increasing the efficiency and effectiveness of the Canadian Forces Reserve. There are numerous usability concerns, which as an aggregate, make the system extremely difficult to operate. The performance is very slow. In my opinion, ...Release 1.0 should not be accepted until these issues are addressed and tested.*

2.27 Issues and problems that surfaced during testing were not included in the project's Monthly Progress Reports; when included, they were downplayed.

The RIIP/RAMS project had depended upon other projects for provision of capabilities that were either late or not delivered.

2.28 Significant DND IM/IT infrastructure, which was expected to be in place, did not materialise. This included such things as installation of the Defence Wide Area Network (DWAN) at armouries, development of a security system, and systems and configuration management. To compensate, the RIIP project built the missing infrastructure at a cost that we estimate to be in excess of $3M. Further, since the RAMS security architecture differed from that later developed for the Department's PK1 security project, if RIIP had continued, additional expense would have been necessary to convert to the security architecture supported by the Department. While the DND RIIP team may have been qualified to function in a traditional project environment, it is not evident that a critical assessment was conducted of personnel qualifications vis-à-vis the requirements of an evolving acquisition process such as CPP. Due to the unique attributes of CPP such as the Crown - Contractor alliance and the need to transition from a traditional project environment mindset to a partnership and risk-sharing environment, project personnel qualifications and any additional training requirements become important considerations.

DND STAFF PREPAREDNESS was not adequate to facilitate operation in a partnership arrangement with the private sector. There were insufficient DND resources dedicated to key project positions at key points in the project's life. This adversely affected the balance of influence within the partnership.

2.29 While the highly integrated team is a key concept in the CPP methodology, there is risk that the close relationship between the client and vendor staff will impair the objectivity of the former and potentially limit the extent of the challenge of the vendor's actions. In the case of RIIP there may have been an over-reliance on the Contractor's ability to manage the project and to define the requirements, especially subsequent to the project definition phase. While the project was under budget during the tenure of the first Contractor PM, contract costs escalated consistently during the time of the second Contractor PM due to alterations to project scope and extensions to the contract period. Project staff commented that DND did not necessarily have the expertise to challenge the Contractor staff and to some extent were dependent on the Contractor to define the scope of the Project.

2.30 The degree of representation of DND staff in the integrated team declined over the life of the project. In addition we believe that the Contractor PM tended to be dominant in terms of the overall management of the RIIP team with the DND PM assuming a somewhat subordinate role, both in substance and in form. It is also noteworthy that, in some instances, DND employees left the project and later rejoined it working on behalf of the Contractor.

2.31 A fundamental risk to public and private sector arrangements is that of differing objectives. While both DND and the contractor were committed to the success of the project, the

goal of the former was to obtain the greatest functionality for the least cost while the latter, and quite reasonably, aimed to maximise profits. Accordingly, the overriding objectives of DND and the Contractor were not congruent. In our view, DND did not institute an effective project management organization and structure to mitigate the risks associated with the partnership arrangement.

APPROVAL PROCESSES and concern for the effectiveness of CPP resulted in slippage and corresponding cost increases.

2.32 The lack of a proven track record for CPP understandably affected the timeliness of project approvals. This precipitated an overall schedule slippage of approximately six months along with attendant increases in costs.

COMPLEXITY was increased within CPP without commensurate benefits.

2.33 Overall, reviews and evaluations indicate that the CPP process had significant limitations that prevented pilot projects such as RIIP from achieving demonstrable gains. We believe that RIIP's chance of success was diminished by the lack of a mature and proven framework, and use of one which offered minimal guidance on project implementation. The framework fell short of amplifying key concepts essential for success as well as proposing proven measures for effective implementation. While the RIIP team should be recognised for making worthwhile efforts to implement CPP, this was done on a trial and error basis. CPP essentially increased the complexity of RIIP from a project management perspective without the offsetting gains in time and cost reduction as initially envisaged.

INTELLECTUAL PROPERTY provisions were not such that the position of the Crown was well protected. Through omissions in the construct of the contract, the Crown has been potentially disadvantaged regarding participation in RIIP related commercialisation activity.

2.34 Because DND was unable to establish a management trail and, clearly, was not in control of all information pertaining to RIIP, we approached PWGSC for their advice in the matter of Intellectual Property. Their advice was that because DND did not sign off on Release 1, this could put the Crown at a disadvantage in terms of any subsequent claim to Intellectual Property.

A MARK-UP of $500,000 was paid by DND on hardware purchased for the RIIP project by the private sector partner.

2.35 One aspect relating to the Project's contracts involves the profit and overhead ("mark-up") paid to the Contractor for the procurement of the hardware equipment for RIIP. Hardware was obtained in accordance with a RIIP contract for approximately $8.4M. This amount included a mark-up of 7.5 per cent on the purchase price for the Consortium's efforts for "...the procurement, supply and delivery of equipment…." The justification for such a charge is questionable, since DND paid a per diem covering 100 per cent of the cost of the person who was responsible for the purchase. Any involvement by the Contractor's regular office administrative staff, in our view, would be limited and certainly would not justify a fee in excess of $500K.

PART 3 – LESSONS LEARNED AND RECOMMENDATIONS

3.1 The lessons learned and recommendations which follow are offered with the recognition that the Defence Management System, IM/IT management and Procurement Reform have all made important strides in DND since the time of cancellation of RIIP/RAMS, and especially since the time of the inception of this project. In most aspects they reinforce the importance of corrective initiatives already taken. However, they are presented with the hope that they will be of use to those who continue to progress these initiatives, to those who oversee projects and to those who manage projects. Key among these lessons learned and recommendations are the following.

Risk Management

3.2 Risk is the key item to be managed during the life of any project. There needs to be wider team and matrix input to risk assessments, likely through facilitated approaches. The possibility of using independent risk analysts is highlighted as well as the need to periodically re-assess risks. The special risks introduced by untried acquisition methodologies must be recognized and managed.

3.3 A key risk management strategy is reflected in current evolutionary acquisition methodologies. However, the use of such gateway methodologies needs to be accepted by all parties. The partner selection process is a key to success. Although overall the public and private sector teams need to be "balanced," public sector project managers likely need business expertise to successfully manage the differing objectives of the participants.

Oversight Bodies

3.4 Oversight bodies need to emphasize their challenge role; focus on risk management; be prepared to accept frank assessments of project progress; be willing to deal realistically with high-risk projects; and be prepared to recommend the use of project off-ramps if that is the best option. These bodies need more standardized, structured and sometimes independently provided information to help them do that. The reviews of projects need to be tied to key project events such as project management turnover.

LESSONS LEARNED

Management Oversight

3.5 Oversight bodies must have more independence from the principals running the project, play more of a challenge than an advisory role, and request information if something is not clear especially if new procurement strategies are being applied. In order to effectively monitor progress and results, oversight bodies should concentrate on the risk assessment and risk mitigation measures and then closely monitor the risk management plan as the project unfolds.

3.6 Independent project reviews would be a useful input to senior oversight bodies to assist them in assessing progress or status. These independent reviews would need to take into account project staff views.

3.7 Senior oversight bodies need more structured and relevant information on not only the project status in terms of cost and schedule, but also the status of the events that either increase or mitigate project risk.

3.8 Senior oversight bodies must take the wider DND/CF view to ensure that capability (or functionality) being delivered remains relevant to the DND/CF mission or strategies or, if a more appropriate technology or approach becomes apparent.

3.9 Senior managers must be prepared to hear frank assessments of progress and risk.

3.10 Notwithstanding “sunk costs”, oversight bodies must be prepared to recommend the use of project off-ramps if that is the best option.

Management of Risk

3.11 Independently conducted or facilitated risk assessments would provide far more staff involvement.

3.12 Risk assessments and risk management plans must be revisited and perhaps redone at key points in a project, especially when using a gateway management methodology, as initial strengths can become weaknesses, as technology innovations become available and as the costs and benefits of taking off-ramps are considered.

3.13 To deal with the private sector in a “partnership”/alliance arrangement, DND/CF staff must be adequately equipped with, among other things, both technical and business “know how.”

3.14 In CPP type relationships, the sharing of risks and benefits will not materialise unless appropriately supported by formal agreements.

Capital Project and Program Management

3.15 When project budgets are judged unaffordable, the soundness of the methodology used to establish costs and schedule must be understood fully prior to the imposition of budget reductions or compressed delivery timeframes.

3.16 When reviewing projects after a significant re-work of the project budget to make it affordable, senior oversight bodies should focus on:

- the effect of any reduction on the capability (or functionality) being delivered (for example scope reduction);
- methods used to reduce the budget to ensure they are acceptable, and realistic; and
- risks inherent in the methods used to reduce the budget.

3.17 During the implementation of the project, senior oversight bodies should understand that it may be preferable to abort a project (or change the approach significantly) than to have on time or on budget delivery of a product that fails to satisfy the original objectives.

Use of Untried Acquisition Methodologies

3.18 First time, or early use of an untried acquisition methodology will increase project risk, require significant acceptance by all involved (including central agencies), may increase project cost and time, and require close management oversight.

3.19 The benefits of untried acquisition methodologies may not accrue to those projects that are early users, as they are usually developing the practical tools and techniques to implement these innovative types of acquisition strategies.

3.20 The selection of the contractor (or partner) to participate in an untried acquisition methodology can be an important key to success.

3.21 Partner selection teams must allow themselves sufficient time to fully consider all aspects of the capabilities of the potential partners.

3.22 Project team organisational structure must be balanced and maintained for a successful partnership arrangement. An “independent” project manager may be essential to managing the differing interests of the partners.

3.23 Prudent use of new acquisition methodologies, such as gateway management, requires that the accompanying contracting approaches provide for the sharing of risks and benefits. Contracts must contain monetary incentives for over-performance and disincentives for under-performance.

3.24 The contractor needs reasonable assurance of on-going work; therefore contracting should be as seamless as possible, with little delay between successive gates in the process (wherein further financial approval is granted, contingent on satisfactory progress to that point). Constant negotiation places a strain on the very relationships that are the key to success.

3.25 Contract preparation must not be left solely up to contracting experts – development team participation is essential.

RECOMMENDATIONS

Risk Assessment and Management

3.26 Guidance to project managers such as that found in the Acquisition Reform Guide or tools such as the Acquisition Desktop should include advice that:

- The early use of innovative procurement methodologies, such as gateway management, should be included as a risk item in risk assessments and risk mitigation strategies.

- If the expertise is not contained within the project office or matrix, independent risk analysis consultants should be used.

- Risk analysis plans for the project office are of a higher level than those for a contractor who must consider risks involved in manufacturing processes, control of subcontractors etc. As such, the contractor should be requested to produce their own risk analysis and management plan.

- Risks should be re-assessed at key project points and risk management plans updated. Key points should include as a minimum:

    - project management or key staff turnover;

    - status and impact thereof, of other projects that have a direct linkage; and

    - events that give rise to risk have occurred or passed or the mitigation measures to overcome key risks have been implemented.

- When the requirements for risk mitigation strategies such as development of a Quality Assurance Framework or Configuration Management Framework are stipulated, they should not be deleted through contract amendment as they were in this case.

- A master test and evaluation plan for deliverables should be considered as a valid risk mitigation tool to be used.

Project Staffing and Support

3.27 Authorities responsible for project management should:

- ensure that project managers and staff are well trained in the use of the acquisition methodologies and project management techniques to be used or consider contracting for project management from a firm independent of the private sector partner; and

- in addition to the current training efforts and the development of the Acquisition Desktop, provide project managers with a number of fora to discuss and exchange project management lessons learned and best practices.

Senior Review Boards

3.28 The Defence Management System Manual should be modified to:

- Alter and increase the frequency of mandatory Senior Review Board (SRB) meetings in order to have them meet with a focus on significant project events rather than a calendar year passage of time. For example, mandatory meetings to review progress should be held:

    - before the turnover of project management responsibilities;

    - when key project milestone dates have occurred; and

    - when key risk events occur or fail to occur.

- Specify a standardised information package for SRB members on the status of project time, cost and quality parameters and the status of the risk management plan, including updates on risk assessments.

- Provide for the SRB to be assisted in their duties with independent assessments of progress at significant points in the project.

CONTRACTING PRACTICES

3.29 Work must not begin in the absence of a contract.

3.30 Selection processes must adhere to stipulated procedures.

3.31 Contracts should contain the necessary penalty clauses for slippage, cost overrun, deferral of statement of work elements due to problems in development or failure in test etc. Individual deliverables should be costed. Contract incentives may also be considered in order to enhance performance.

Project Financial Management System

3.32 Financial plans and controls must be used in order to track planned versus actual expenditures and budget performance, including projections of remaining work.

Culture

3.33 The Department must continue to foster an environment which ensures that a corporate perspective is brought to bear and that the determination to succeed within particular projects/spheres is tempered by a willingness to seek senior direction to prevent and resolve difficulties.

MANAGEMENT RESPONSE

3.34 ADM(IM) has recently issued direction in two areas that bear directly on project management, and which in large measure, respond to the lessons identified in this report:

- the re-organization of the Information Management Group (IMG) to create a division devoted exclusively to IM/IT project delivery; and

- the implementation of a Project Delivery Management (PDM) discipline which enhances the skills and knowledge of project staffs and provides more insightful project leadership and oversight.

3.35 A detailed discussion of the above initiatives is contained in Annex A. ADM(Mat) has noted that their Material Acquisition Desktop provides critical information for project staff. DFPPC has emphasised initiatives aimed at enhancing the DMS manual.

GLOSSARY

ADM(IM)	DND Assistant Deputy Minister Information Management
ADM SOP	Assistant Deputy Minister Supply Operations of PWGSC
CAC	Consulting and Audit Canada of PWGSC
CCPS	Central Computational Pay System
CIO	DND Chief Information Officer
CPP	Common Purpose Procurement (a gateway management acquisition methodology)
DGIMPD	Director General Information Management Project Delivery
DGISDS	Director General Information Systems Delivery and Support
DG Proc S	Director General Procurement and Supply
DGRC	Director General Reserves and Cadets (the project sponsor of RIIP/RAMS)
DIMPR	Director Information Management Project Requirements
DIMPPC	Director Information Management Project Planning and Control
DMM	Delivery Management Meeting
DND	Department of National Defence
DPDCIS	Director Project Delivery Common Information Systems
DPDMIS	Director Project Delivery Management Information Systems
DPDOIS	Director Project Delivery Operational Information Systems
DWAN	Defence Wide Area Network
EPA	Effective Project Approval
FMAP	Financial Management and Accounting Project
FMAS	Financial Management and Accounting System
HR	Human Resources
IMG	Information Management Group
IM/IT	Information Management/Information Technology
ITMIS	Individual Training Management Information System
PCB	Program Control Board (now renamed Program Management Board)
PDM	Project Delivery Management
PeopleSoft	Human Resource management information system software used by DND
PMB	Program Management Board
PMBOK	Project Management Book of Knowledge
PMI	Project Management Institute
PMPR	Project Management Personnel Resource
POC	Proof of Concept
PPMP	Project Performance Management Plan
PWGSC	Public Works and Government Services Canada
RAMS	Reserve Automated Management System
RFP	Request for Proposal
RIIP	Reserve Integrated Information Project
SRB	Senior Review Board
TB	Treasury Board
TBS	Treasury Board Secretariat
UQAH	Université du Québec à Hull

ANNEX A

MANAGEMENT RESPONSE TO THE RIIP/RAMS AUDIT REPORT

INTRODUCTION

1. Section 3 of this report identifies a number of lessons and recommendations arising out of the closure of the RIIP Project. This annex deals only with recommendations for which DND is the responsible agency.

2. ADM(IM) has recently issued direction in two areas that bear directly on project management, and which in large measure, respond to the recommendations identified in this report:

- the re-organization of the Information Management Group (IMG) to create a division devoted exclusively to IM/IT project delivery; and

- the implementation of a Project Delivery Management (PDM) discipline which enhances the skills and knowledge of project staffs and provides more insightful project leadership and oversight.

THE RE-ORGANIZATION OF THE INFORMATION MANAGEMENT GROUP

3. The re-organization of IMG includes a division whose title is Director General Information Management Project Delivery (DGIMPD), in which there are five directorates as follows:

- Director Information Management Project Requirements (DIMPR), responsible for identifying the operational requirements of the products of IM projects and monitoring the extent to which these requirements are met by project deliverables;

- Director Project Delivery Common Information Systems (DPDCIS), responsible for projects delivering common information systems, e.g., the Defence Wide Area Network (DWAN);

- Director Project Delivery Operational Information Systems (DPDOIS), responsible for the projects delivering operational information systems, such as those required in electronic warfare;

- Director Project Delivery Management Information Systems (DPDMIS), responsible for projects delivering management information systems such as the Defence Integrated Human Resource System; and

- Director Information Management Project Planning and Control (DIMPPC), responsible for the implementation and on-going support of PDM, with a consequent increase in the validity of project planning and the effectiveness of project control.

While this new division will not be formally operational until October 2000, this division has been able to devote itself exclusively to project delivery since April 2000. This provides a significant advantage over the previous arrangement in which IM/IT projects had to compete for the attention of their divisional chiefs with their other, frequently operational, responsibilities.

THE PROJECT DELIVERY MANAGEMENT INITIATIVE

4. The PDM discipline was borne out of the recognition that:

- the Defence Management System provides an appropriate program-level management system for DND's IM/IT (and other) projects; and

- the Project Management Book of Knowledge (PMBOK) provides a project management level framework of knowledge that is the industry standard for this discipline; but

- gaps exist between these two sets of policies, processes and knowledge. In particular, neither addresses portfolio level issues such as project management oversight, PM human resource (HR) management, interdependency management and portfolio management.

5. The PDM is a multi-faceted initiative that focuses on active support to project teams and provides for intervention in times of severe problems or potential crisis. PDM provides this support from the initial planning of a project through its transition into implementation to its close-out. Conceptually, PDM provides the following services to project teams:

- structuring a project for success right from its earliest existence in the context of the whole portfolio of DND IM/IT projects;

- supporting the development of a project management staff through certification and career development of team members and the provision of appropriate processes, tools and project management knowledge;

- providing easily accessible techniques for issue, risk and change management;

- providing a Deputy Project Leader explicitly responsible for each project whose main function is to mentor its Project Manager and Project Director, offering them guidance, leadership, challenge and support;

- providing a Project Interdependency Manager whose role is the provision of advice and guidance to Project Leaders, Directors and Managers on interdependencies including those associated with security aspects of IM;

- providing a Project Control Manager responsible for the operation and support of a performance management program for all IT/IM projects;

- providing a PDM Knowledge Manager, responsible for the acquisition, storage, updating and dissemination of relevant project, issue, risk and change management information to project teams;

- facilitating the identification of problems or potential problems and their resolution during monthly project delivery management meetings; and

- supporting the orderly close-out of projects and project phases so as to glean all valid lessons accruing therein and ensuring their dissemination to others involved in projects.

6. Central to the PDM discipline is the *PDM Practice Manual* that describes the practices that support the PDM discipline applied to information management (IM) projects in DND. It is based on the *PDM Concept of Operations* and should be used in that context. The *Practice Manual* is not a static document. Rather, its contents will be continuously improved, as experience and best practices are captured and improved upon. The PDM practices have been developed under the following topics:

- Project Oversight, which contains practices directing the application of PDM to individual projects so as to prepare for and deliver success in each. A context is provided that aligns these practices to the DMS for all project phases as it defines them. Project Oversight includes the following PDM Practices:
  - Independent Reviews (in use);
  - Project Delivery Management Meetings (in use);
  - Project In-service Acceptance Planning (in use);
  - Project Performance Management Plan (in use);

- Project Readiness Reviews (in use);
- Project Status Reports (in use);
- Senior Review Board (in use);
- Communications Management Plan (to be developed);
- Implementation Strategy (including Procurement Strategies) (to be developed);
- Intervention Management (to be developed);
- Risk Management (being developed);
- Scope Management Process (to be developed); and
- Stakeholder Analysis (to be developed).

- Portfolio Management, which contains practices relating to management of the current inventory or portfolio of IM projects. Portfolio Management includes the following practices
  - Project Portfolio Management (in use);
  - Portfolio Management Plan (to be developed); and
  - Senior Management Review (to be developed).
- Interdependency Management, which contains practices relating to identification, tracking and analysis of interdependencies among projects planned and in progress, and between those projects and the in-service IM environment. Interdependency Management includes the following practices:
  - Interdependency Management (to be developed); and
  - Interdependency Profile (being developed).
- Practice Management, which deals with internal aspects of PDM. Its practices include:
  - Management of Project Close-out Reports (to be developed); and
  - PDM Communications (to be developed).
- Knowledge Management, which contains practices that enable effective identification, sharing, improving and leveraging of knowledge relevant to successful delivery of IM projects. This aspect of the PDM is still under development and its practices have yet to be identified. However, lessons are being captured, Lessons Learned Sessions are being conducted with Project Managers and the value of lessons learned in increasingly recognized by project teams; and

- Human Resource Management for IM Project Management Professionals: which contains practices that enable development and maintenance of a cadre of IM project management professionals, and the assignment of those resources to meet project requirements and individual career objectives. Human Resource Management includes the following practices:
  - Project Management (PM) Professional Resources (PMPR) Management (in use);
  - Career Management of IM PM Professionals(to be developed);
  - Certification and Training (of IM PM Professionals) (to be developed);
  - Contracting for IM PM Professionals (to be developed); and
  - Recruitment and Competitions (of IM PM Professionals) (to be developed).

The certification program has already been implemented and certificates have been awarded to 16 staff members by the Project Management Institute (12), the CDI (formerly Control Data Institute) (2), UQAH (1) and the Professional Institute of the PS (1). In addition, 25 other staff members are currently enrolled in the certification programs of one or other of the above institutions.

7. Each PDM practice is described in the business context within which it will normally be applied. The document describing each practice includes templates for specified documents and checklists for actions needed by project staff, e.g., the conduct of SRB meetings. In this way, the manual seeks to make it easy for project staffs to conduct projects for successful delivery and stakeholders to realize a positive contribution from PDM.

AUDIT REPORT RECOMMENDATIONS

8. Attached at Appendix 1 is a table containing the recommendations in Section 3 over which DND has direct control. The response column in the table sets out the specific actions undertaken or planned by DND that address each recommendation.

CONCLUSION

9. A review of Appendix 1 will show that the re-organization of the IMG to create a division dedicated to IM/IT project delivery and the implementation of the PDM discipline should have a very significant impact on the success rate of these projects. These steps represent a mature, prudent response to the failure of the RIIP Project and to experience in other IM/IT projects whose outcomes were not entirely satisfactory. It must be noted, however, that these steps, as prudent as they may be, cannot guarantee success in all current and future IM/IT projects. We can hope that the application of the skills and knowledge acquired by the certification program, the leadership, oversight and mentoring provided by PDM and the focus of the DGIMPD division will increase the likelihood of success in all future IM/IT projects.

APPENDIX 1
TO ANNEX A

TABLE SHOWING THE DND MANAGEMENT REPONSE TO EACH OF THE AUDIT REPORT'S RECOMMENDATIONS

1. The table below provides:

   a. the paragraph number of each recommendation in the Audit Report;

   b. a summary of the recommendation; and

   c. the response of DND senior management to the recommendation.

APPENDIX 1
TO ANNEX A

Para #	RECOMMENDATIONS	MANAGEMENT RESPONSE
	Risk Assessment and Management	
3.26	*Guidance to project managers should include:* a. Use of innovative procurement methodologies, e.g., gateway management, should be included explicitly in risk assessments and risk mitigation strategies; b. If expertise is not contained in the project office or matrix, independent risk analysis consultants should be used; c. Project risk management plans are of a higher level than those of contractors, who must consider risks in manufacturing processes, control of sub-contractors, etc. Contractors should be requested to produce their own risk analyses and plans; d. Risks should be re-assessed at key project points and risk management plans updated. Key points should include: • project management or key staff turnover; • status and impact thereof, of other directly-linked projects; and • events that give rise to risk have occurred or the mitigation measures to overcome key risks have been implemented. e. When the requirements for risk mitigation strategies, e.g., Quality Assurance Frameworks or Configuration Management Frameworks, are stipulated, they should not be deleted through contract amendment; and f. Master test and evaluation plans for deliverables should be considered as valid risk mitigation tools.	a. *The PDM discipline calls for each PM to develop, and gain approval of, a Project Performance Management Plan (PPMP) that outlines how the Project will be managed for each of the 9 PMBOK Knowledge Areas. Four of these areas, scope, time, risk, and cost require performance indicators to be utilised. The existence of a continuous risk management process is also required;* b. *Monthly Project Status Reports are prepared and discussed at Delivery Management Meetings (DMMs). The DMM ensures that the continuous risk management process is being maintained. Significant risks are discussed to ensure appropriate risk mitigation or contingency plans are in place, and that risks are being monitored;* c. The IM PM Professional Development program is designed to increase the knowledge and skills in standard PM practices of IMG project management and delivery staffs; d. A PDM Practice Document on Implementation Strategy, which includes the Procurement Strategy, not yet developed, will address the risks in the chosen procurement strategy. It will call for explicit mention of project risks in the Project Implementation Plan, how they are being dealt with and their current status; e. *The PDM HR Management Practice, by emphasizing the certification of project staffs and their career management, will enhance the validity and relevance of project guidance;* f. *All certified PM staff will understand the importance of Risk management;*

APPENDIX 1
TO ANNEX A

Para #	RECOMMENDATIONS	MANAGEMENT RESPONSE
		g. *PDM calls for a Project Control Officer in each project office with responsibility for the maintenance of Risk Management Plans. Where qualified internal resources are not available, this function is being provided by consultants;* h. It is our intention, in the Implementation Strategy Practice document, to require risk management plans from contractors in current and future procurement actions;The current SRB Practice calls for a standard status briefing at each SRB meeting that explicitly deals with risks to the successfully delivery of the project; i. The project DMMs regularly review Quality and Scope management plans. Any significant changes to a contract such as that mentioned would be highlighted and action taken; and j. The current Independent Review Practice calls for an independent review to be conducted annually on all projects, a mandatory topic of which is project risk.
	Project Staffing and Support	
3.27	Authorities responsible for project management should: a. Ensure that project managers and staff are well trained in the use of the acquisition methodologies and project management techniques to be used or consider contracting for project management from a firm independent of the private sector partner; and In addition to the current training efforts and the development of the Acquisition Desktop, provide project managers with fora in which to discuss and exchange project management lessons learned and best practices.	The PDM in general and the PDM HR and Practice Management Practice Documents address these issues in detail.

APPENDIX 1
TO ANNEX A

Para #	RECOMMENDATIONS	MANAGEMENT RESPONSE
	Senior Review Boards	
3.28	a. The Defence Management System Manual should be modified to: Alter and increase the frequency of mandatory SRB meetings in order to have them meet with a focus on significant project events rather than a calendar year passage of time. Mandatory meetings to review progress should be held: • before the turnover of project management responsibilities; • when key project milestone dates have occurred; and • when key risk events occur or fail to occur; b. Specify a standardised information package for SRB members on the status of project time, cost and quality parameters and the status of the risk management plan, including updates on risk assessments; and c. Provide for the SRB to be assisted in their duties with independent assessments of progress at significant points in the project.	a. Since the first version of the DMS Manual was issued, in 1998, there has been a continuous effort by DFPPC staff to note areas for improvement and solicit suggested amendments from all stakeholders, and, when appropriate, to promulgate interim changes in the form of Program Guidance Memoranda (PGMs). Earlier this summer, work in this area was linked to the Integrated Defence Management Framework (IDMF) initiative, which is intended to provide improved support for internal planning, management and decision-making in DND/CF. The IDMF working group (WG), which comprises representatives from all Gps/ECSs under the coordination of DFPPC, has been mandated to make recommendations to improve the Department's project approval process and the effectiveness of SRBs. Pending submission of the IDMF WG recommendations later this fiscal year, the DFPPC analysts have been instructed by the VCDS to encourage and promote a more activist role by SRBs, so that project issues are properly addressed by these oversight bodies; b. It should be noted as well that the SRB and the Independent Review Practice already address these issues in detail; c. As well, Deputy Project Leaders, the three Delivery Directors in the DGIMPD Division, are well aware of the need to observe these points in their oversight of their projects and of their review of agendas and briefings for SRBs; and d. We have implemented an independent review process, described in the Independent Review Practice document, which addresses this topic since one of its source documents is the DMS Manual.

APPENDIX 1
TO ANNEX A

Para #	RECOMMENDATIONS	MANAGEMENT RESPONSE
	Contracting Practices	
3.29	Work must not begin in the absence of a contract.	Concur. The DMM should preclude this recurring.
3.30	Selection process must adhere to stipulated procedures.	Concur. The Implementation Strategy Practice and the DMM should ensure that stipulated procedures are followed.
3.31	*The following points were made:* a. Contracts should contain appropriate penalty clauses for slippage, cost overrun, deferral of statement of work elements due to problems in development or failure in test etc.; b. Individual deliverables should be costed; and c. Contract incentives should also be considered to enhance performance.	While DND has influence on these aspects of procurement, it cannot take the lead in dealing with them. However, The Project Implementation Strategy Practice, when developed, is expected to provide firm guidelines on procurement, dealing with these important points.
	Project Financial Management System	
3.32	Financial plans and controls must be used to track planned versus actual expenditures and budget performance, and should include projections of remaining work.	a. The PPMP of PDM requires that each project develop and maintain earned value, Schedule and Cost performance indicator calculations throughout the project life cycle. These are reviewed at the monthly DMM; b. The PDM Project Performance Management Plan Practice will assist both project staffs and SRB members to track actual vs planned expenditures; c. The annual independent review called for by PDM should highlight evaluation of planned vs actual costs in every project; and The monthly Project Delivery Management Review meeting called up in the Project Delivery Management Practice should ensure that the project staff and Deputy Project Leader focus on these important financial performance indicators.

APPENDIX 1
TO ANNEX A

Para #	RECOMMENDATIONS	MANAGEMENT RESPONSE
	Culture	
3.33	DND must continue to foster an environment which ensures that a corporate perspective is brought to bear and that the determination to succeed within particular projects/spheres is tempered by a willingness to seek senior direction to prevent and resolve difficulties.	The re-organization of the IMG to provide a division focused exclusively on project delivery, and the implementation of PDM should both contribute to a culture devoted to project success. An underlying philosophy of PDM is assisting all those involved in IM projects to develop a culture in which successful delivery is their over-arching aim.