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EVALUATION OF MILITARY INDIVIDUAL TRAINING AND EDUCATION

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SYNOPSIS

This report presents the results of a Chief Review Services evaluation of Individual Training and Education (IT&E) for Canadian Forces (CF) personnel. This evaluation was initiated to assess the effectiveness and efficiency of the IT&E program. The scope extended from the governance structure, through to the production process and resource management. Some of the key findings of a companion document “Review of the E-Learning Component of Military Training and Education” are also noted in this report.

Training is obviously vital to mission achievement by the CF and the Department of National Defence (DND). IT&E for the CF consumes approximately \$1.6 billion annually, inclusive of member salaries. Accordingly, it is essential that such training be delivered as efficiently as possible while effectively meeting the needs of the CF. The common perception is that the CF has effective training and education programs; this is based on the CF’s consistent success in operational theatres and in working with allied forces. Our evaluation shows, however, that there are few tangible indicators to isolate the contribution of IT&E and to monitor its overall effectiveness.

The pace for IT&E has increased by virtue of a 54 percent increase in student days between 2000/01 and 2002/03. However, the overall trend since 1996 suggests that productivity in CF schools has declined. In FY 2002/03, to produce the 2.16 million student days, the ratio of student days to person years was 220, down from 277 as determined by the OAG in 1996. There are approximately 73 schools in 41 locations providing the IT&E program; this is a substantial investment in infrastructure—investment that continues without the benefit of a long-term departmental strategy for IT&E infrastructure, or relevant costing information.

All pertinent training and education in the CF is managed through a system—the Canadian Forces Individual Training and Education System (CFITES)—which is intended to optimize the quality and quantity of IT&E, while minimizing the utilization of resources. To date, this system has experienced difficulty in forecasting training requirements due to insufficient information. In addition, priority allocation of training as well as data integrity, accuracy and consistency remain key concerns.

The evaluation encountered a number of opportunities for improvement in the delivery of the IT&E program. The overall program is not sufficiently orchestrated/coordinated to ensure adequate planning horizons and meaningful performance measurement. Governance processes are not in place to ensure adherence to policies, strategic direction, a coherent management framework, and management information necessary to reliably forecast requirements. Responsibility is devolved to Management Authorities (MAs) who act independently, thereby compromising opportunities for synergy and ensuring that training resources are directed to highest and best use. As such, the evaluation concludes that productivity can be improved and resources better applied through merging separate institutions, achieving economies of scale, as well as streamlining and simplification of processes. In view of the annual investment of \$1.6 billion, and the extensive infrastructure involved in IT&E production, it is difficult to accept that full economies and allocation of resources to highest and best use are being achieved. The evaluation of detailed potential savings or reallocations is complicated by the lack of available costing information.



Given the challenges and issues facing IT&E, and our observations as to its current mode of functioning, the CRS evaluation team concludes that much could be accomplished through clarification and alignment of roles, responsibilities and accountability. In this respect, we see it as important to ensure that the Assistant Deputy Minister (Human Resources – Military) (ADM(HR-Mil)), as Departmental Authority (DA), has increased authority and control of resources necessary to ensure adherence to IT&E policies, strategic direction and the management framework.

Amendment Note:

In December 2004, CRS briefed the Armed Forces Council (AFC) on the findings and recommendations of this evaluation report. One of the key changes envisioned in the report was a stronger role for ADM(HR-Mil) in guiding the needed improvements. There was general agreement that steps needed to be taken to rationalize and better coordinate the delivery of IT&E. Among other things, the briefing emphasized the opportunities for significant rationalization of resources. Improved resource allocation would be achieved substantially through harmonization of traditional bricks and mortar, electronic and contracted delivery solutions for IT&E. There are also quality of life considerations for CF members. The importance of distinguishing between general training and objectives specific to individual service environment was also reinforced.

Fundamental changes are occurring within the CF. A basic premise of the profound Transformation under way is to bring more effective command structures and to ensure necessary integration of maritime, land, air and special operations forces. Under this umbrella, technical and tactical training standards for CF personnel and formed elements engaged in CF Joint Support operations will be defined. A CF Integrated Training Directive is also being developed.

The nature and reach of CF Transformation have delayed consideration of the specific recommendations contained in this Evaluation Report. Aspects of accountability for the recommended improvements remained to be resolved. Notwithstanding, the CRS evaluation team is of the opinion that the IT&E issues warranting attention remain relevant to any organizational scenario. As best we can judge, the integration and harmonization proposed in this report remains consistent with the CDS Transformation vision.

The evaluation recommendations are summarized in matrix format at report page VI. A Management Action Plan has not been prepared, as options being developed through the Transformation mandate have necessitated delaying consideration of the specific recommendations.



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RESULTS IN BRIEF

INTRODUCTION

Training is vital to the continuing operational success of the Canadian Forces (CF) and the Department of National Defence (DND). Individual Training and Education (IT&E) refers to all instructional activities provided to CF members that impact the skills, knowledge and attitudes required to perform assigned duties as well as to exercise sound judgment and correctly interpret information. It consists of General Military, Occupational, Specialty and General Purpose training while excluding Military Collective and Civilian training. This report presents the results of a Chief Review Services evaluation of the IT&E program.

OVERALL ASSESSMENT

Effective training is obviously fundamental to mission achievement and, consequently, the CF expends considerable resources, \$1.6 billion annually, in accomplishing this objective. While the effectiveness of IT&E is evidenced by the success of the CF in operational theatres and in working with allied forces, there are few tangible indicators that isolate and monitor the strategic contribution of IT&E. Observations on the current functioning of IT&E led the CRS evaluation team to conclude that the Assistant Deputy Minister (Human Resources – Military) (ADM(HR-Mil)), as Departmental Authority (DA), requires greater authority and control of resources to ensure adherence to the IT&E policies, strategic direction and management framework.

The generation of appropriate performance and costing information is a critical determinant in the success of the operation of the IT&E governance and management framework. For example, information related to the infrastructure needed to support IT&E, the detailed expenditures on training and student-training activities was not readily available. Notwithstanding, a 54 percent increase in the number of student days reported between fiscal years 2000/01 (1,404,831) and 2002/03 (2,162,382), productivity is declining in CF schools. In FY 2002/03, to produce the 2.16 million student days, the ratio of student days to person years was 220, down from 277 as reported by the OAG in 1996. IT&E activities are heavily dependent on human resources, with approximately 9,829 person years dedicated to training, in over 70 schools in more than 40 locations. The evaluation found that there is significant potential for increased efficiency given the currently highly decentralized and customized approach to IT&E. These increased efficiencies will be difficult to achieve without a strengthened governance structure that can guide the rationalization of IT&E delivery across the CF.

EVALUATION PROFILE

An evaluation framework was designed to guide the study. Areas of study focus identified in the framework include:

- Governance Structure and Performance Measurement;
- Strategic and Policy Guidance;



- Program Efficiency;
- Program Effectiveness & IT&E Production;
- Resource Management; and
- Delivery Strategies.

EVALUATION FINDINGS

Governance Structure and Performance Measurement

Governance is generally understood to mean the system that defines the structures, processes, cultures and systems through which an organization sets out its objectives, defines the means of obtaining them and monitors its performance.

Observations on the current functioning of IT&E led the CRS evaluation team to conclude that the Assistant Deputy Minister (Human Resources – Military) (ADM(HR-Mil)), as Departmental Authority (DA), requires additional authority and control of resources to ensure adherence to the IT&E policies, strategic direction and management framework. As the DA is not an operational commander, the position does not have authority to direct how training activities are conducted and resources allocated outside of one's own Managing Authorities (MAs). Interviewees commented on a general lack of understanding of the authority and roles of the MAs and the different IT&E committees. The evaluation team found situations where strategic and policy decisions regarding IT&E were being made without thorough analysis of the risks and overall impacts on the program.

Generation of appropriate performance information is a critical determinant in the success of the operation of the IT&E governance and management framework. Performance measurement is mainly accomplished through an annual verification exercise. Some MAs have developed performance measurement frameworks that are now being implemented. Guidance has been provided by the DA regarding the requirements for a core set of IT&E performance measures, but monitoring is not sufficient. There is a need to transform the IT&E verification process into a more comprehensive performance measurement and management tool. Ability to develop efficiency measures has been constrained by the rate of development of the IT&E Costing Model and the Military Individual Training and Education (MITE) module.

Strategic and Policy Guidance

Two strategic guidance documents (Officership 2020 and Non-commissioned Member (NCM) Corps 2020) have been articulated recently to guide the way ahead for professional development. The CRS evaluation team considers it to be too early to ascertain whether these two documents provide adequate direction. Currently, IT&E planning is primarily short-term, done as part of the annual business planning process of Level Two Management Authority (MA) organizations. It tends to be fragmented and done



independently by MAs without sufficient medium-term strategic guidance. Many of the personnel interviewed felt that their work could benefit from an articulated IT&E vision and strategy. Concern was also expressed about the limited amount of guidance presented in the ADM(HR-Mil) Functional Planning Guidance.

Program Efficiency

CRS conducted a review of IT&E efficiency to identify opportunities for cost savings that could subsequently be re-allocated to DND/CF strategic IT&E priorities. Total resources were estimated to be approximately \$1.6 billion. Several opportunities to improve efficiency were analyzed.

IT&E administration is decentralized and unwieldy. There are approximately 73 schools at 41 locations. Many non-military colleges, universities and training organizations establish targets for the ratio of administration to program costs (20 percent to 30 percent of total costs). A target for the ratio of administrative to program costs has not been established for IT&E. Civilian training organizations are reducing administrative costs by consolidating institutions under a single administration.

Infrastructure and training equipment costs are key components of non-academic resources. We found that comprehensive and verifiable data on the number of facilities, square footage, etc., is not readily available. Several studies completed in the past ten years have stressed the need to consolidate IT& E infrastructure, yet this has not been an important focus of attention.

Contracting out with civilian institutions is limited. Our study found that contracted out student days represented less than 1 percent of all DND/CF student days reported. We feel that significant opportunities exist in Canadian community colleges for contracting out many IT&E programs.

Productivity is continuing to decline at CF schools. It might be possible to increase productivity through benchmarking with comparable organizations. Redundant courses should be identified and removed.

As noted in the review of e-Learning¹ for the military, conducted concurrently to the IT&E study, a coordinated approach to the development of an e-Learning strategy, built around a shared technology platform, has not yet taken place, but would offer the potential to rationalize scarce learning resources. The e-Learning review concludes that the DND/CF is currently investing significant resources in e Learning, with a proposal to invest over the next five years. At the same time, there are serious impediments that are preventing rapid progress to support innovative continuous learning opportunities. The Defence Learning Network (DLN) offers a central learning platform for e-Learning, but MAs are still pursuing independent initiatives, which can lead to fragmentation, duplication and inefficient use of funds.

¹ Review of the E-Learning Component of Military Individual Training and Education, CRS Report, November 2005.



Program Effectiveness & IT&E Production

The Canadian Forces Individual Training and Education System (CFITES) supports the operational capability of the CF by providing members with the IT&E needed to perform effectively.

MAs report experiencing difficulty forecasting training requirements due to insufficient information. To date, adequate mechanisms have not been implemented to monitor production impacts and adjust resources to meet changing priorities on a CF-wide basis. IT&E for advanced and specialty qualifications of members must be deferred frequently to accommodate the Basic Training priority. A reliable production planning and forecasting approach, which does not exist now, is needed given the interrelationships between MAs that have resulted from the decentralized IT&E system.

As IT&E's objectives are broad, it is difficult to accurately assess the program's effectiveness. The CRS evaluation team observed that many of the long-standing challenges identified in previous reviews still persist today. Reliance is placed on the perception of having effective training and education programs based on the work that is being done in operational theatres and working with allied forces. However, DND has few tangible measures to support this perception. Many MAs have initiated independent studies to seek ways to be more efficient and effective.

Most MAs are not achieving the target set for validating 20 percent of active qualifications annually. Progress with IT&E accreditation and granting of equivalencies has been slow. IT&E managers could make better use of civilian accreditation, equivalencies and prior learning assessments (PLAs) that recognize member's previous credit or non-credit, formal or informal lifelong learning.

Resource Management

IT&E requirements have limited visibility in the CF's strategic planning, business planning and resource allocation processes. Resource planning is fragmented and poorly aligned. From a CF/DND perspective, the number of MA positions has led to an increase in resource management stovepipes. With a fragmented resource planning and management structure, measuring the efficiency of IT&E program delivery is more difficult. IT&E cost information is neither readily available nor reliable. To rectify the costing deficiency, an IT&E Costing Model has been developed and implemented in 2004/05. The target date for the first set of IT&E cost data to be analyzed by L1 representatives, comptrollers and trainers, based on FY 2003/04 data, is November 2004. It is expected to be a 70 to 80 percent solution.

The MITE system has recently been implemented to replace the former Individual Training Management Information System (ITMIS). MITE supports the IT&E and the quantity control elements of CFITES. Ensuring data integrity and that data is accurately and consistently maintained by all MAs remains a key concern for the new system.



Delivery Strategies

Leading military organizations recognize the strategic opportunity presented by learning technologies. E-Learning is generally accepted by learning experts and organizations as a critical and cost-effective strategy to enhance training capability. E-Learning involves an organizational culture change that embraces a non-traditional way of conducting and delivering IT&E. In an era when capacity to provide face-to-face training is constrained by budget realities, e-Learning has emerged as a viable technological innovation to complement traditional learning methods and improve the efficiency of training administration.

The Department is developing a Defence Learning Network (DLN) as a dynamic training delivery system using the Internet. MAs recognize that e-Learning holds the potential to provide high-quality, lower cost strategy for enhancing training capacity and improved quality of life for members. However, the development of the DLN has not been based on a commitment to achieve cost savings nor to meet a specific ROI target for the DND/CF. Although developing ROI targets is challenging, performance measures for monitoring return on investment associated with e-Learning need to be defined by the DLN, in partnership with MAs. The DLN intends to develop an action plan to address this. MAs do not have costing systems that easily allow for the collection of data needed to evaluate the cost/benefit of their activities.

A review of the e-Learning for the military was conducted concurrently with the IT&E study and found that a governance structure is not yet in place to resolve horizontal challenges that are department-wide in scope, nor is there authority vested with a single process owner for e-Learning who can control the proliferation of learning systems. This fragmented approach places the DND/CF at risk of duplication of effort, not achieving economies of scale and the inefficient use of training dollars for the e-Learning investment. A separate report of the findings is available as **Volume Two: E-Learning Component of Military Individual Training and Education** of this document.



KEY RECOMMENDATIONS

OPI	RECOMMENDATIONS
ADM(HR-Mil)	1. Seek sufficient authority and resources to ensure adherence to the IT&E policies, strategic direction and management framework.
ADM(HR-Mil)	2. Create an organization responsible for production planning, with the appropriate authority to direct MAs to take priorities from the entire CF into account and make the necessary trade-offs.
ADM(HR-Mil)	3. Provide sufficient strategic direction for consistent planning, management and measurement of IT&E. Integrate performance measurement with strategic planning and budgeting.
ADM(HR-Mil)	4. Develop an IT&E Strategic Plan that identifies CF-wide objectives for the planning, management and delivery of IT&E. MA and other stakeholder involvement with the DA will be necessary to ensure that the final project establishes an agreed direction for IT&E activities and supporting improvement initiatives.
ADM(HR-Mil)/ DGSP	5. Provide greater visibility to the IT&E resource requirements and activities in the CF's strategic and business planning and resource allocation processes. Ensure IT&E resources can be readily identified in financial plans/budgets.
MAs/DTEP	6. Make reliable costing information available to manage IT&E activity, monitor the return on investment and maintain accountability for the use of public funds.
ADM(HR-Mil)	7. Eliminate the time delays between action, reporting and learning by tracking IT&E results on an ongoing basis. Provide on-line access to an IT&E scorecard in real time.
ADM(HR-Mil)/ VCDS	8. Create a task force, with participation from the DA and all the MAs to identify rationalization and cost-saving opportunities within the DND/CF training and education system.
DTEP	9. Ensure compliance with the requirement for all active qualifications to be validated over a five-year cycle.
DTEP	10. Maintain comprehensive accreditation and equivalency processes to ensure that military skills and/or experience are transferable to the civilian sector upon completion of the term of service.

MANAGEMENT ACTION PLAN

A Management Action Plan has not been prepared, as options being developed through the Transformation mandate have necessitated delaying consideration of the specific recommendations.

It is the opinion of the CRS evaluation team that the IT&E issues warranting attention remain equally relevant to any organizational scenario and has elected to retain them. Specifically, the proposed integration and harmonization described in the Report remain consistent with the CDS Transformation vision.



INTRODUCTION

Training is vital to the continuing operational success of the CF and the DND. Individual Training and Education (IT&E) currently consumes approximately \$1.6 billion annually. It is essential that training be delivered as cost-effectively as possible and that it meet the needs of the CF.

An evaluation of training and development strategies and delivery was approved in the 2000/01 CRS Work Plan. The review began in the fall of 2001 and has involved comprehensive consultation within the Department of National Defence and the Canadian Forces (DND/CF), excluding the Reserves.

The purpose of the study conducted by CRS was to evaluate the extent to which IT&E:

- Management framework provides a coordinated approach to oversee and manage the program;
- Performance measurement systems provide the necessary tools to monitor IT&E performance;
- Strategic direction and policy guidance is clearly articulated, understood, accepted and followed;
- Activities and processes are providing the right people with the right knowledge, skills and attitudes, at the right time and for the right cost;
- Production process contributes to meeting the requirements for trained effective strength; and
- Resource allocation mechanisms support achieving objectives in a cost-effective manner.

IT&E refers to all instructional activities provided to CF members that impact the skills, knowledge and attitudes required to perform assigned duties as well as exercise sound judgment and correctly interpret information.² It consists of the following components:

IT&E Type	Enables CF Member to...
General Military Training	Perform in the military environment e.g., recruit, Basic officer, leadership and environmental training, etc.
Occupational Training	Be functionally operational in an occupation and to progress from an initial qualification level to higher levels in the occupation.
Specialty Training	Perform unique tasks required in a limited number of jobs.
General Purpose Training	Meet a departmental objective or goal that may not be based on specifications but is mandated. For example, harassment prevention, health and safety, etc.

Excluded are military collective³ and civilian training.

² DAOD 5031-2, Individual Training and Education Management Framework.

³ Military collective training is designed to prepare teams, units and other elements to perform military tasks in accordance with defined standards. Included are procedural drills and the practical application of doctrines, plans and procedures to acquire and maintain tactical, operational and strategic capabilities.



JUSTIFICATION FOR REVIEW

The training and education system has adapted to constant change in the last decade. An overview of significant events and a changing environment impacting individual training and education is provided in Annex B.

The Defence Mission Statement calls for the DND/CF to:

Defend Canada and Canadian interests and values while contributing to international peace and security.

Looking out to 2020, the vision is that:

The Defence Team will generate, employ and sustain high quality, combat-capable, interoperable and rapidly deployable task-tailored forces. We will exploit leading-edge doctrine and technologies to accomplish our domestic and international roles in the battlespace of the 21st century and be recognized, both at home and abroad, as an innovative, relevant knowledge-based institution.

Recognizing that success depends on people, a Strategy for 2020⁴ states that the Department must:

- Reduce the number of military support occupations and refocus on broader career fields;
- Examine and adapt new training strategies to provide CF members with the common knowledge and skills required to operate in the battlespace of the 21st century; and
- Introduce a focused program to impart the skills and knowledge required by senior personnel to conduct strategic level planning and decision-making as well as providing advice to government.

Human Resources (HR) Strategy 2020, prepared in response to the Defence Strategy 2020 stresses the importance that people have in fulfilling the Defence mission.

PROGRAM PROFILE

The CF Professional Development System (CFPDS) is a comprehensive, integrated and sequential development process that constitutes a continuous learning environment. It consists of the following four pillars: training, education, self-development and work experience. Quality, quantity and resources of IT&E are managed in a systematic, performance-oriented manner to produce the required number of CF members with the appropriate qualifications, at the right time.

The CFITES is the management system designed to optimize the quality and quantity of IT&E while minimizing the utilization of resources. It is modelled after the Systems Approach to Training. CFITES is composed of a Quality Control System and a Quantity Control Process. Each of these components incorporates resource management mechanisms.

ADM(HR-Mil) has been appointed by the Chief of the Defence Staff (CDS) to be the DA for IT&E. The DA exercises authority and provides oversight for the management of IT&E through: policies, guidance, departmental staff, a management framework and a committee structure. MAs have been appointed by the DA to assigned IT&E activities.⁵

An extensive network of schools, colleges and specialized training facilities provides the training and education required by members of the CF.

⁴ A Strategy for 2020, Shaping the Future of the Canadian Forces, June 1999.

⁵ DAOD 5031-2 Individual Training and Education Management Framework.



EVALUATION PROFILE

An Evaluation Framework (see Annex C) was designed to guide the study and produce information that can be used to make decisions about the overall success of the IT&E activities and processes. The Evaluation Framework specifically addresses areas of study focus identified due to their relevance to the IT&E program:

- Governance Structure and Performance Measurement;
- Strategic and Policy Guidance;
- Program Efficiency;
- Program Effectiveness and IT&E Production;
- Resource Management; and
- Delivery Strategies.

Criteria were used as the basis for assessing the quality of the IT&E program. Once the criteria and indicators were defined for the Study, sources of data were identified to enable the team to examine these variables. Where sufficient data did not exist, additional data was gathered. Sources of data are included in Annex D.

QUALITATIVE AND QUANTITATIVE RESEARCH

Qualitative research was applied to determine attitudes about IT&E related interventions or approaches, ideas for improvement, and explanations for why things are performed in a particular way. Qualitative key informant interviews helped the team to better understand the IT&E issues.

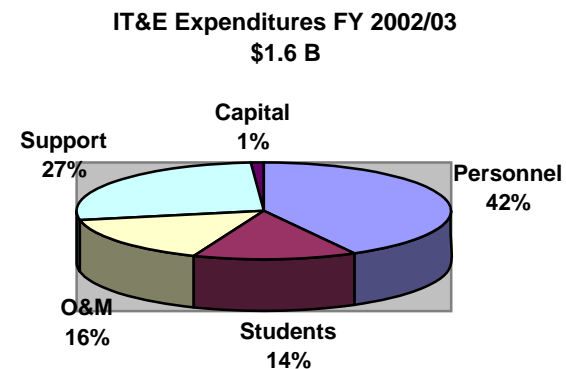
Although cost analysis data is generally lacking for IT&E, quantitative lines of inquiry were pursued. The quantitative investigation consisted of review and analysis of existing

records and data generated by organizations delivering IT&E, and comparative data from best practice organizations.

The quantitative data collection process highlighted many of the inefficiencies being encountered in the IT&E environment. Information relating to infrastructure, expenditures and student training activities was not readily available. Also, several of the MAs expressed concern over the accuracy and reliability of the data submitted. Where possible, the cost and data analysis is intended to provide a general overview of the nature of the annual investment made by the DND/CF in IT&E.

Input Metrics

The CRS Evaluation team performed a rough cost analysis using data related to fiscal year 2002/03. It was determined that the estimated operating cost related to IT&E, including the personnel cost of training was approximately 1.6 billion. Shown in the diagram below is an estimate of the full costs of inputs to IT&E for the period of the study.



EVALUATION FINDINGS

GOVERNANCE STRUCTURE AND PERFORMANCE MEASUREMENT

Evaluation Questions

- *Does the governance framework provide a coordinated approach to oversee and manage IT&E?*
- *Are roles and responsibilities of the DA/MAs and all the stakeholders clearly understood and accepted?*
- *Do the performance measurement systems provide the necessary tools to monitor IT&E performance?*

Current Governance Structure

The term governance is generally understood to mean the structures, processes, cultures and systems through which an organization sets out its objectives, defines the means of obtaining them and monitors its performance.

Within the DND/CF the CDS has appointed ADM(HR-Mil) to be the DA for IT&E. The DA provides oversight on the management of IT&E through:

- Policies and Guidance;
- Departmental Staff;
- Management Framework; and
- Committee Structure.

Policies and Guidance. Strategic guidance for IT&E is provided by Defence Administrative Orders and Directives (DAOD) 5031-2: *Individual Training and Education Management Framework*, January 2003.

Departmental Staff. The DA is accountable to the CDS for providing direction on how the CF is to manage IT&E. MAs are appointed by the DA to manage assigned IT&E activities. Several MAs manage IT&E for specific military occupations and elements of the general and environmental specifications. Each MA has IT&E duties, authority and accountability for the use of resources to manage assigned IT&E activities.

Responsibility for IT&E is allotted to the lowest authority level possible, consistent with the chain of command, accountability principles and direction from Treasury Board and other government agencies. The provision of IT&E may include partnerships with, or contracting to other departments, non-governmental organizations, industry, foreign military and other sources. Requirement Authorities (RAs), appointed by the DA, provide quality and production requirements for assigned military occupations to the applicable military MA.

Management Framework. CFITES is the management system that is used to control IT&E. This Framework is designed to optimize the quality and quantity of IT&E while minimizing the resources dedicated to the associated programs.

Committee Structure. A committee structure exists to facilitate and ensure consultative decision making at several levels. A detailed list of the committees is provided in Annex F.

Current Performance Measurement

A commitment has been made by the DND/CF to improve its strategic performance measurement. Critical success factors and expected outcomes for Canada's defence force are defined



in the Level Zero⁶ Performance Measurement Framework (L0 PMF). IT&E performance underpins a number of the performance perspectives and indicators in the DND/CF L0 PMF. This strategic performance measurement framework uses a Balanced Scorecard approach consisting of four key perspectives:

- Promote professional, effective and sustainable Defence team;
- Manage program resources;
- Deliver defence outputs; and
- Shape future defence and security outcomes.

Level 1s are in the process of independently developing performance measurement frameworks that are aligned with the L0 PMF. The rates of development vary considerably amongst the L1s. In turn, the MAs are developing, or intend to develop performance measurement frameworks that are linked to, and consistent with, the respective L1 frameworks. Some MAs have developed performance measurement frameworks that are now being implemented. Examples include the CF Support Training Group in ADM(HR-Mil) and the Land Force Doctrine and Training System (LFDTS) in the Chief of the Land Staff (CLS).

Performance measurement for IT&E is mainly accomplished through an annual verification exercise. IT&E verification is intended to be a high level “confirmation” that provides feedback to ADM(HR-Mil) and the MAs on how they are progressing in meeting departmental IT&E objectives. IT&E verification is based on the guidance provided by the ADM(HR-Mil) Functional Planning Guidance. The IT&E

verification process has completed five full cycles. The annual IT&E verification consists of:

- An annual IT&E verification of the DA conducted to provide constructive, detailed feedback to clarify any deficiencies so that appropriate improvement action may be taken. Responsibilities of the ADM(HR-Mil) covered include: policy, strategic guidance, verification, planning and coordination; and
- Collection and analysis of data to populate the IT&E Verification Matrix. The IT&E Verification Matrix is composed of a variety of performance measures, indicators and standards.

Governance and Accountability Issues

DA Role Requires Additional Authority to Ensure Adherence to the Policies and Other Requirements of the IT&E Management Framework. The DA is accountable to the CDS for the provision of direction on how the CF is to manage IT&E. MAs are accountable to the CDS, through the L1 chains of command, for the management of IT&E (e.g., production of the required number of CF members with the appropriate qualification at the right time to perform their assigned duties).

The CRS evaluation team determined that the DA lacks sufficient authority and resources to ensure adherence to the IT&E policies, strategic directions and management framework, or to optimize the overall effectiveness and efficiency of the IT&E quality and quantity control systems. This governance issue is a function of the CF culture where the DA is not an operational commander and as such is regarded as having limited authority to direct how L1 training activities are conducted and resource allocations made outside of his own

⁶ The corporate or strategic level performance management framework.



MAs. The commanders of commands and staff who are appointed as MAs are accountable to the CDS for managing IT&E in accordance with the DAOD. Equally, consequences do not exist for commands that chose not to adhere to IT&E policies and guidelines.

Roles, Responsibilities and Accountability Remain Unclear.

Issuance of DAOD 5031-2 in early 2003 should have provided sufficient, clear guidance regarding IT&E roles, responsibilities and accountabilities. However, some ambiguities and confusion regarding accountabilities continue. In particular, overlapping responsibilities for policy guidance related to professional development need to be clarified for the two organizations with responsibility in this area:

- Director Training and Education Policy (DTEP), which reports to the ADM(HR-Mil) through the Director General Military Human Resource Policy and Planning (DGMHRPP), is responsible for policy related to training and development along with the provision of policy guidance to the MAs; and
- Canadian Defence Academy (CDA) which reports to both the CDS and the ADM(HR-Mil), is responsible for advice and support in all aspects of professional development to the CDS, as the Head of the Profession of Arms, and to the ADM(HR-Mil).

Within ADM(HR-Mil), MA devolution has resulted in:

- Five training and education organizations with responsibility for IT&E and a support training organization that report separately, and in parallel to, the DA;

- Command of the CDA by a two star officer while other organizations with assigned MA responsibilities for IT&E (e.g., Canadian Forces Support Training Group (CFSTG)) are commanded by Colonels or equivalent; and
- Dual reporting responsibilities for commanders of CDA (to the CDS and ADM(HR-Mil)), and the Canadian Forces Provost Marshal (CFPM) (to the Vice Chief of the Defence Staff (VCDS) and the ADM(HR-Mil)).

Supporting organizations for IT&E delivery within the MAs (e.g., base support, human resources/personnel, infrastructure support etc.), often report through different organizations, outside of IT&E. For example, 3 Area Support Group (3 ASG) provides support to Combat Training Centre Gagetown.

Some participants in the study interviews commented on, or exhibited, a lack of understanding of the authority and roles of the different committees that may become involved in IT&E matters, and/or the purpose of the involvement.

Insufficient Analysis of the Risks and Impacts of Recent IT&E Reorganization.

Strategic and policy decisions regarding IT&E are sometimes made without thorough analysis of the risks and overall impact on the effectiveness and efficiency of the program. Inadequacies in the collection and reporting of performance statistics (e.g., IT&E costs and training outcomes etc.) are further compounding difficulties in this area. This issue is readily illustrated by the strategic pause in place during the disbandment of CFRETS⁷ and the decentralization of MAs to support organizations for professional development.

⁷ Canadian Forces Recruiting, Education and Training System (CFRETS) was created in 1995 and disbanded in 2002. Its major functions were recruitment, education and training.



Performance Measurement Issues

As part of our review, observations related to the IT&E performance measurement approach were compared to a set of general criteria as shown in the table on this page. See Annex G for a description of the characteristics applied in the assessment.

OBSERVATIONS & PERFORMANCE MEASUREMENT CRITERIA	
Characteristic	Observations
Clarity of Purpose	Lack of consistent objectives and strategies for IT&E, other than Level Zero (L0) Guiding Questions.
Focus/Alignment	Limited strategic guidance reflects a lack of overall authority, alignment and leadership for IT&E.
Balance	Largely focused on outputs, rather than outcomes and cost efficiency measurement. Work is under way to develop tools to provide improved IT&E cost information.
Regular Refinement/Robustness	Insufficient use and monitoring of measurement frameworks to enable an assessment.
Targets	Not at a point where targets can be set across all MAs (other than a target for the validation of qualifications).

In addition, some specific weaknesses were noted in the current IT&E performance measurement structures and approaches:

- Insufficient strategic direction for consistent planning, management and measurement of IT&E;
- Performance measurement is not currently integrated with strategic planning and budgeting;
- Lack of accountability to the DA by the MAs for IT&E delivery performance;
- Insufficient guidance on core measures for IT&E performance, with each Level One (L1) defining its measures independently;
- Verification reports focus mainly on inputs and outputs and lack balance in their presentation of information about the outputs and outcomes of the program; and
- Reporting on performance by L1s and MAs is not done consistently, and doesn't readily roll-up to provide a L0 view on indicators such as: training state, training demand, training flow, personnel awaiting training, etc.

Performance Monitoring Relies on Informal and Ad Hoc Measurement in Response to Specific Questions. As the verification exercise is only conducted annually, time delays between action, reporting and learning are being encountered. IT&E results are not tracked on an ongoing basis. Access on-line to an IT&E scorecard in real time is not available. MAs could benefit from ready access to results information to better manage their activities.

Ability of the CF to Measure and Report on IT&E Performance is Limited by Force-Wide Factors. These include resource allocations for performance measurement not keeping up with demands. This has resulted in slippage of the time frames established for the development of L1 performance measurement frameworks.

Need to Transform IT&E Verification Process into a Comprehensive Performance Measurement and Management Tool. Issues identified in the verification report are not closely monitored to ensure that corrective action is taken to enhance performance. For example, there is/are:

- Concerns about the limited strategic guidance/direction provided by the DA;



- A need to link the IT&E Verification process to the DND/CF strategic performance measurement framework;
- An inability of the MAs to reach the 20 percent standard for validating active qualifications; and
- A need to improve capabilities to report on IT&E performance.

An opportunity exists to transform the IT&E Verification process into a performance measurement and management tool in support of a more robust DA function. For example, it could be used to promote development of consistent performance measurement and reporting standards, or to identify and address issues of concern across the MAs.

Best Practices in Related Organizations

U.K. Ministry of Defence Training Review (2001)

recommended the establishment of an organization, headed by a 2-star Director General of Training and Education reporting to the equivalent of the CDS and DM, with responsibility for: policy and strategic direction; strategic planning; and approval of IT&E budgets.

U.S. Navy Executive Review of Training (2000/01) created a single entity which has control over the Navy's training organizations, people, facilities and funds.

American Productivity and Quality Center identified the following key findings from Best Practice Research:

- Performance measures are tied to strategic objectives;
- Measures demonstrate results and focus on outcomes;
- Lagging and leading indicators are balanced;
- Decisions and improvements in operations are based on performance information; and
- Total alignment of the organization is promoted through flexible measures and frameworks.

Recommendations

OPI	ACTIONS
ADM(HR-Mil)	Seek sufficient authority and resources from the CDS to ensure adherence to the IT&E policies, strategic directions and management framework.
ADM(HR-Mil)	Clarify IT&E roles, responsibilities and accountabilities of DTEP and CDA.
ADM(HR-Mil)	Conduct a risk management assessment as part of all major strategic and policy decision-making.
ADM(HR-Mil)	Provide sufficient strategic direction for consistent planning, management and measurement of IT&E. Integrate performance measurement with strategic planning and budgeting.
ADM(HR-Mil) & MAs	Review performance measures identified in IT&E Verification matrix to ensure there is a balance between outputs and outcomes.
ADM(HR-Mil)	Monitor issues identified in the verification report to ensure resolution and that corrective action is taken to enhance performance.
ADM(HR-Mil)	Eliminate the time delays between action, reporting and learning by tracking IT&E results on an ongoing basis. Provide on-line access to an IT&E scorecard in real time.



STRATEGIC AND POLICY GUIDANCE

Evaluation Questions

- *To what extent is the application of IT&E strategic direction and policy guidance clearly articulated, understood, accepted and followed?*
- *Are there adequate supporting policies and processes to facilitate implementation of plans and the delivery of services at the Managing Authority level?*

Key Elements of the Current CF Approach

Strategic direction and policy guidance support the requirement for a governance framework to provide clearly defined, realistic and accepted performance expectations and direction.

Long and Medium-Term HR Planning. In 1999, Defence Strategy 2020 developed a statement of strategy for the delivery of essential, viable and sustainable defence capabilities. To accomplish this vision a number of five-year targets were established, three of which are specific to training and education:

- Reduce the number of military support occupations and refocus on broader career fields;
- Examine and adapt new training strategies to provide CF members with the common knowledge and skills required to operate in the battlespace of the 21st century; and
- Introduce a focused program to impart the skills and knowledge required by senior personnel to conduct strategic level planning and decision-making, as well as providing advice to Government.

HR 2020. Defence's Military Human Resources Strategy 2020 (HR 2020) is aligned with Defence Strategy 2020 and contains a Long-term Capability Plan (LTCP). It lays the foundation for a Canadian Forces people management strategy to meet the opportunities and challenges ahead. HR 2020 is an integrated planning document that takes goals and theory and translates them into an HR plan for the future.

Long-Term Capability Plan (Human Resources). As part of HR 2020, an investment strategy, called the LTCP, was developed to identify the required resources to achieve the HR strategy over the next ten years. The LTCP consists of a five-year corporate plan with a ten-year scanning horizon. It is prepared in parallel with the annual business plan.

Officership 2020 and NCM Corps 2020. These two subsets of HR 2020 together provide the vision and framework for the reform of Officer and NCM professional development and the supporting systems to meet the challenges and demands anticipated in 2020.

Training initiatives are included in the HR strategies which call for the transformation of the CF into a learning organization. In the military context, the creation of a learning organization is intended to enhance the operational effectiveness that results from a dedicated commitment to a shared vision.

The HR strategic objective established for professional development is that:

Professional development (PD) is a core component of a competent and expert CF. PD must be flexible, agile, customizable, accredited and offered in the member's preferred official language. In addition, it must be accessible to all CF members, of high quality, and tailored to suit the needs of individuals while balancing the needs of the organization. The corporate culture must be one that reflects the importance of a learning organization through the encouragement and promotion of professional development among its people.



Short-Term HR Planning. Strategic direction and guidance for short-term HR planning, provided by the ADM(HR-Mil) Functional Planning Guidance, was initiated for fiscal year 2003/04 to :

- Provide direction to L1s on HR items including IT&E and expands upon what is included in the Defence Plan for ADM(HR-Mil);
- Highlight key IT&E policies applicable to and systems required for the conduct of IT&E activities; and
- Identify key IT&E initiatives to be addressed in L1 Business Plans e.g., recruiting surge, personnel awaiting training, distributed learning, etc.

Link with Corporate Priorities. In Defence Plan 2001, Defence Management Committee's (DMC) commitment to five priority change areas was identified. Foremost on the list was "putting people first".

Supporting Policy Guidance. DTEP is responsible for the provision of policy, guidance, development and coordination of several CF IT&E programs.

The CDA is responsible for the development and operation of an integrated common professional development delivery system, including the provision of:

- Department-wide education advice and services; and
- Relevant policy and planning advice to senior management.⁸

⁸ National Defence, a Charter for the Canadian Defence Academy, March 2002.

Issues in the Provision of Strategic Direction and Guidance

Limited Strategic Direction and Guidance is Provided. In 1998, The ADGA Group Consultants Inc. (ADGA) report recommended:

Renew the vision for IT&E at the corporate level with due consideration of its strategic importance and the expenditures involved. The vision should recognize IT&E linkages to other critical DND activities, processes and policies.

Since then, two strategic guidance documents (Officership 2020 and NCM Corps 2020) have been announced that outline the way ahead for professional development for Officers and NCMs respectively. Due to the newness of this strategic guidance for professional development, it is difficult for the evaluation team to determine whether the two documents adequately define the skills and competencies the CF will need to operate effectively in the years ahead, or whether key initiatives have been appropriately prioritized.

Currently, IT&E planning is primarily short-term, done as part of the annual business planning process of Level Two (L2) MA organizations. It tends to be fragmented across MAs/L1s, with each MA planning its IT&E activities independently without the benefit of sufficient medium-term strategic guidance from the DA. Also, the current IT&E planning is sometimes fragmented within L1 Business Plans. For example, responsibility for operational planning is often separated from the authority for resource allocation and budgeting.



The fragmentation noted in the IT&E medium-term direction, poses potential risks for the DND/CF:

- Decisions regarding the organization of IT&E, e.g., the addition of MAs and increased decentralization are being made without the benefit of a more developed strategic framework; and
- Initiatives with the potential to improve the effectiveness of training delivery e.g., distance learning, outsourcing/ alternative service delivery (ASD), the use of simulation technologies, and location of and investment in facilities and equipment are being carried out without sufficient overall strategic direction.

Limited strategic direction and guidance may affect MA/L1 understanding of, and adherence to, IT&E policy requirements. Many of the personnel, working in leadership and management positions in MAs, indicated that their work could benefit from an articulated and coordinated IT&E vision and strategy. For example:

- Modernization of training capabilities and selection of appropriate training technologies; and
- Facility development and/or rationalization of the number and location of schools.

Some of the interviewees expressed concern regarding the limited amount of guidance presented in the ADM(HR-Mil) Functional Planning Guidance, e.g., the content was too generic to help business planners in the prioritization process. There is a need to make the choices and trade-offs required in the planning and budget process among MAs rather than these decisions being made in isolation.

Some concerns regarding the development and provision of Strategic Guidance continue to be expressed in the annual Verification reporting:

- DAODs, National Defence Headquarters (NDHQ) Instructions and Policy Guidance manuals issued during 2001/02 partially address gaps in the availability of IT&E policies;
- In the domain of strategic direction and guidance, the need for more proactive efforts was identified especially for decisions that have a major impact on IT&E e.g., introduction of new policies/programs, recent increases in recruitment, etc.;
- Limited attention is paid to IT&E in L1 business plans as requirements from the various L2s, with IT&E responsibilities, are rolled-up and the cost of IT&E is not visible in the L1 business plan;
- ADM(HR-Mil) Functional Planning Guidance (FPG) is not always made available in sufficient time to enable business planners to include the information provided in their proposed plans and budgets; and
- Limited time is allowed for the DA (represented by DTEP to review the adherence of proposed L1 Business Plans with the ADM(HR-Mil) FPG and requirements of the IT&E management framework.⁹

⁹ DTEP, Individual Training and Education (IT&E) Verification Report: Fiscal Year 2001/02, August 2003, pg. 2.



Best Practices in Related Organizations

U.K. Ministry of Defence. Director General of Training and Education is being established with responsibility for:

- Ensuring that mechanisms are in place to promote cost-effective provision of IT&E;
- Contributing to the corporate planning process by producing an annual strategic plan for IT&E;
- Identifying and addressing current and future skill requirements; and
- Ensuring that strategic standards are maintained and that IT&E outputs support the Defence Mission as a whole.

Many **Public Education and Training Ministries** have established accountability frameworks and performance goals for education and training systems. Frameworks often include public reporting on results against goals/common benchmarks.

Recommendations

OPI	ACTIONS
ADM(HR-Mil)	<p>Develop an IT&E Strategic Plan that identifies CF-wide objectives for the planning, management and delivery of IT&E. MA and other stakeholder involvement with the DA will be necessary to ensure that the final product establishes an agreed direction for IT&E activities and supporting improvement initiatives. Included in the plan should be:</p> <ul style="list-style-type: none"> ▪ A performance measurement framework; ▪ A process to annually review performance and update the Plan; ▪ A mechanism to facilitate close linkage between recruitment and training, and all aspects of the IT&E processes; and ▪ Identification of project teams or working groups responsible for leading the implementation of key initiatives.
ADM(HR-Mil)	<p>Provide Functional Planning Guidance in sufficient time to enable business planners to include the information in their proposed plans and budgets.</p>



PROGRAM EFFICIENCY

Evaluation Questions

- *Are the IT&E activities cost-effective? Are there more economical ways of doing things, while preserving the quality and effectiveness of IT&E?*
- *Are opportunities for IT&E outsourcing, partnerships and contracting being sufficiently explored?*

Efficiency, for the purpose of our evaluation, is defined as the ratio of effective or useful output to the total input of any system. Due to a lack of data and limitations in data integrity, CRS conducted a preliminary review of IT&E efficiency. It is our intent that any cost-savings identified would be re-invested in the IT&E programs. Our primary objective was to identify opportunities for cost-savings that could subsequently be re-allocated to DND/CF strategic IT&E priorities.

The analysis was based on full-costing that included military salaries and infrastructure. Total resources were estimated to be approximately \$1.6 billion. During the review, emphasis was placed on the IT&E administration versus program delivery costs. The analysis focused on several areas, namely IT&E infrastructure, administration and productivity.

Efficiency Issues

IT&E Administration is Decentralized and Unwieldy.

Approximately 73 schools at 41 locations were identified during our study including many IT&E “administrative” organizational units. For example:

- The Army has four levels of IT&E administration, compared to three levels for most of the other MAs. It also has two training Headquarters plus 4 Area Training Centres (ATCs) that are primarily involved in the administration of reserve (militia) training. A new Command – 3 ASG has been created to provide base/equipment support to Combat Training Centre (CTC) Gagetown and the Eastern ATC;
- The Air Force has some staff at L1 and 1 Canadian Air Division (1CAD) responsible for IT&E activities. Additional equipment and support for IT&E is provided by the Wings;
- Cost savings realized from the dismantling of CFRETS have been offset by the creation of additional MAs: CDA, CFSTG, Canadian Forces Recruiting Group (CFRG) and Canadian Forces Medical Group (CFMG) and their accompanying administrative units; and
- For most MAs, base support services are provided by Command and administration units that are not within IT&E jurisdiction. CFSTG is the only MA for which the Commander has responsibility for base support e.g., infrastructure support and equipment acquisition/maintenance.

CFSTG has begun to rationalize school administration at Canadian Forces Base (CFB) Borden similar to what is being observed in community colleges and universities. Programs are being re-structured as departments within one institution with a common administrative function.



Many non-military colleges, universities and training organizations establish targets for the ratio of administrative to program costs, usually 20 percent to 30 percent of total costs. A similar ratio has not been established for IT&E. Civilian organizations, such as educational and health institutions, have been reducing administrative costs by merging separate institutions under a single administration.

The ADM(HR-Mil)/MA devolution initiative, currently undergoing a pause, needs to be re-examined from an efficiency perspective. The cost-neutral assumption made in the Consulting Audit Canada (CAC) CFRETS report has not been achieved based on our documentation review.

Infrastructure and Training Equipment Costs are Key Components of the “Non-Academic” Resources. As noted, with the approximately 73 institutions and 41 locations, there is a substantial amount of infrastructure to satisfy the IT&E requirements. Included are the direct and indirect costs of all buildings used, for IT&E programs e.g., classrooms, warehouses, equipment, etc.

The largest schools, based on square footage include: CFB Montreal, CFB Borden, CFB Gagetown, and CFB Kingston. The following table includes some summary information on the buildings at the schools related to the training facilities currently owned and operated by the DND/CF:

No. of facilities	323
No. of classrooms	1158
Area (floor space)	413,350 sq. metres

During our interviews we found that data on the number of facilities and square footage of space is not reliable. Most of the MAs are not directly responsible for their individual IT&E

infrastructure, with the exception of CFSTG. Neither are IT&E managers held accountable for the efficiency of IT&E programs, including infrastructure. Most MAs were unable to identify accurate IT&E capital expenditures. Also, equipment support/maintenance costs are not being consistently reported across MAs.

Our study concluded that the reported \$110 million of building support costs is greatly underestimated. Based on the assumption that the CF spends 10 percent of its IT&E budget on infrastructure (7 percent to 10 percent range for Ontario colleges/universities), the estimated infrastructure cost would be \$175 million to \$200 million per year.

Several studies completed in the last ten years stress the need to consolidate the DND/CF IT&E infrastructure. Despite these recommendations, infrastructure reduction has not been an important focus of attention. Management of infrastructure, including assessment of requests for new buildings, additions and renovations, etc., is being done without a long-term departmental IT&E infrastructure strategy or relevant costing information.

The evaluation team believes that the campus concept, as described in the CAC CFRET’s report should be explored as one means of reducing the number of schools/establishment.

Contracting Out with Civilian Institutions is Limited. The latest IT&E Verification Process Report indicates there are 34 contract arrangements with civilian institutions. Some MAs use outside service providers more than others, e.g., the Navy and Air Force have a number of current initiatives and are exploring others.



For MAs who submitted data during our study, total contracted out student days represented less than 1 percent of all DND/CF student days reported.

Contracting out has been a viable option for the CF to gain efficiencies with IT&E, but little progress has been made:

- In 1998, the ADGA report concluded that 37 military occupations (MOCs) out of 113 (33 percent) had parallel training readily available at Canada's 175 community colleges, operating in over 900 campuses. Estimated potential savings of up to \$100 million per year were identified through outsourcing of this training;
- VCDS, in 1998, identified several opportunities to outsource IT&E related to non-core MOCs. Approximately 36 percent of military positions were categorized as "non-core" (approximately 24,000 out of 64,000 positions); and
- VCDS and the Strategic Human Resource Planning Guidance (SHRPG) 2001, issued directives indicating that the CF should adopt, at the corporate and working levels, the premise that the civilian academic infrastructure, where appropriate, should be utilized. Currently –
 - DA's delegated authority allows each MA to make its own decisions about contracting out, and
 - Specific targets have not been set.

Our assessment is that significant opportunities exist in Canadian community colleges for contracting out many IT&E programs.

Productivity is Continuing to Decline at CF Schools. On several occasions the Office of the Auditor General (OAG) has commented on the declining productivity of CF schools. In FY 2002/03, to produce 2.16 million student days, the ratio of

student days to person years (PYs) was 220, down from 277 as determined by the OAG in 1996.

Major differences in the ratio of student days to PYs were noted between MAs, ranging from 70 in the Air Force to 859 at CFRG. Indicators such as ratio of student days to PYs, by serials, and type of personnel (administrative vs. program) could be used for productivity analysis/performance measurement, etc.

Although overall PY data by MA was collected for our study, additional details, by type of personnel (administrative vs. program), was not readily available. This type of information is, however, reported within other sectors.

Opportunities exist to simplify and streamline some of the processes and systems in place to manage school productivity processes, e.g., elements of quantity and quality control of the CFITES. For example, it might be possible to increase productivity associated with course design, conduct and validation through benchmarking with comparable organizations.

Integration of Regular Members with Reservists, with respect to training and education, differs significantly between MAs and could provide opportunities for increased efficiencies. For FY 2002/03, 450,000 Reserve student days (approximately 23 percent of the total number) were reported. Most of the CF Army Reserve training is separate from the two other Environments who have integrated their training systems. We noted that other jurisdictions, including the U.S. Army, have integrated some of the Reserve and Regular Force training in an effort to increase the efficiency of program delivery.



The Number of Courses Available and Offered has an Impact on Program Delivery Efficiency. Although there are cost-savings by not offering a course, the cost of developing and maintaining courses is a relevant factor to consider. Once developed, courses require regular updating to keep them current.

In FY 2002/03 there were approximately 3,129 courses available, of which only 1,455 (47 percent) were actually held. Some MAs are conducting a review to identify and remove redundant courses. For example the Navy has recently reduced the available qualifications by over 40 percent (from 1,100 to 668).

The MOSART¹⁰ project is currently reviewing the occupational project and could result in the consolidation of similar occupational specifications. However, progress is slow and it is anticipated that reviewing all MOCs will take many years.

Timing of Delivery is “Front-Loaded”. A significant amount of training/education is “front-loaded” in a member’s career which increases the likelihood of inefficient utilization of resources. Close to 11 percent of Officers and 13 percent of NCM total attrition occurs in the first 365 days of enrolment.¹¹ Within three years, NCM attrition patterns historically result in the loss of approximately 33 percent of new recruits.¹²

¹⁰ Military Occupational Structure Analysis Redesign & Tailoring (MOSART). The project provides a multi-level assessment of the current Military Occupational Structure (MOS) policies and structural framework and investigates whether they optimally support the CF mission and vision.

¹¹ Director Military Employment Policy, Quantitative Analysis of Regular Force Attrition, from the Canadian Forces, 1997/98 through 2001/02, 6 November 2002.

¹² Directorate of Strategic Human Resource Coordination (DSHRC) Research Note RN 03/02.

The current DND/CF approach is described by some members as “very standardized”. During our interviews, comments received included:

- Training is designed for too low a level;
- Why should someone with a Masters in Business Administration (MBA) be required to take all the courses at the Canadian Forces College (CFC);
- There is a risk of over-training occurring; and
- Some of the training provided is not required immediately, etc.

Previous studies have reported concerns related to the timing of delivery:

- CAC CFRET’s report identified that “an overall education strategy is needed to balance education with other demands and requirements”; and
- The OAG reported that the CF posting process is not tightly harmonized with training activities, resulting in significant amounts of training being required after posting/employment is assigned.

Our interviews with Career Managers revealed that the matching of posting and training skill sets is more difficult to reach now, given the increased operational requirements.



Best Practices in Related Organizations

Military Organizations e.g., U.S. Army, U.K., Australia. Trend is towards:

- Increased school consolidation;
- Reduction in number of training locations;
- Higher instructor-student ratios;
- Recognition that larger schools can achieve economies of scale and improved utilization of capacity;
- Integration of regular force and reserve training;
- Consolidation of military specialized jobs and development of training packages that support cross-utilization of similar occupational specifications; and
- Increased use of community colleges and universities.

Civilian Education Institutions. Best practices include:

- Perform on-going initiatives to reduce non-academic costs;
- Provide incentives to reduce overhead and administrative costs; and
- Conduct space utilization studies and contracting out initiatives.

Recommendations

OPI	ACTIONS
VCDS/ ADM(HR-Mil)	<p>VCDS and ADM(HR-Mil) to jointly seek authority from the CDS and DM to create a task force, with participation from the DA and all the MAs to identify rationalization and cost-saving opportunities within the DND/CF training and education system. Responsibilities should include, but not be limited to:</p> <ul style="list-style-type: none"> ▪ Validating costing and output data obtained from the MAs; ▪ Establishing targets for the ratio of administration to program costs; ▪ Assessing the feasibility of generating cost-savings through the exploration of opportunities such as contracting out, unifying training of regular and reserve forces, merging of separate institutions under a single administration; and ▪ Developing a long-term departmental IT&E infrastructure strategy.



PROGRAM EFFECTIVENESS AND IT&E PRODUCTION

Evaluation Questions

- *Are the IT&E activities and processes providing the right people with the right knowledge, skills and attitudes, at the right time, and for the right cost?*
- *What are the IT&E production issues?*

Effectiveness refers to how competent a program is in achieving its mission or goals.¹³ A program is effective if it achieves its objectives. Effectiveness is most easily measured when there is a single objective and the desired result is clear and quantifiable. Assessing effectiveness becomes more difficult as the range of objectives increases and access to performance and outcome information decreases.

Key Elements of Program Effectiveness

The CFITES is a DND/CF management system. It supports the operational capability of the CF by providing members with the IT&E needed to perform effectively. A diagram illustrating the IT&E Production is contained in Annex E along with a description of the major components.

The CF was downsized in the mid 1990s from 90,000 to 60,000 members, resulting in a serious gap in some military occupations. During the downsizing, the Annual Military Occupation Reviews (AMORs), held to identify long-term needs for production management, were only conducted in an

ad hoc manner for a seven-year period. Since 2000, the CF has begun conducting AMORs again.

An accurate assessment of IT&E's effectiveness depends upon the clarity and precision of IT&E's objectives. However, the current IT&E objectives are very broad. As a first step, IT&E stakeholders and managers need to agree on objectives and expected results in greater detail than presently exists. Measures by which IT&E's impact can be assessed should also be decided.

The CRS evaluation observed that many of the long-standing challenges identified in previous reviews still persist today. The CF appears to rely primarily on the perception of having effective training and education programs based on the work that is being done in operational theatres and working with allied forces. However, the DND has few tangible indicators to support this perception and monitor the effectiveness of IT&E.

MAAs are continuously striving to maintain a high degree of quality in the delivery of training and education. Many MAAs have initiated independent studies to seek ways to be more effective in conducting IT&E. Some examples are as follows:

- The Land Force Command Inspector (LFCI) completed a report entitled the State of the Army in 2002. The report is a compilation of Army activities by the LFCI. Recommendations were made to improve the Army Individual Training System; and
- The Air Force is planning a \$10 million expenditure on the Air Force e-Learning project. It is a strategic-level initiative to provide a capability suited to the operational requirements of the Air Force.

¹³ Program Effectiveness Organizational Development Glossary of Selected Terms, United Way of Greater Toronto.



These efforts are positive. However, indicators are still required to monitor progress towards goals and to demonstrate accountability for managing IT&E programmes. In our view, IT&E is experiencing considerable challenges that indicate a system under unyielding pressures. This finding is reinforced in the Bland Report that describes the system as being:

...under severe strain with sizable gaps in the personnel strengths and falling levels of quality and experience in critical operations within the CF.¹⁴

Without tangible indicators to monitor effectiveness, the CF does not know how well or how poorly they are doing, and will not be in a position to take corrective action as required. The overall risk to the CF is a reduction in operational effectiveness.

Effectiveness Issues

Coordinated Planning and Forecasting for IT&E is Inadequate Across the CF. Planning is done by the MAs for their assigned occupations. Each MA has developed a method of forecasting and uses AMORs as a basis of input. However, strategic corporate-wide planning to integrate CF requirements for training and education is lacking. With nearly 2.16 million training days in fiscal year 2002/03, a critical production need facing MAs is to identify the demand for training in terms of what is required and for how many people at each rank, of each military occupation.

Forecasting data provided to CRS by the MAs indicates that they are experiencing difficulties with planning the demand for training. Three MAs over-forecasted by 20 percent or more; and the Army did not provide a forecast for 2002/03. The table below shows the number of graduates forecasted for 2002/03:

	CFRG	CFSTG	CDA	CFMG	PM	ARMY	AIR	NAVY
FY 02/03 Forecast	6,972	11,173	N/A	812	535	N/A	9,300	11,616
FY 02/03 Actual	5,243	13,123	1,560	789	427	31,539	8,878	9,336
Variance	1,729	-1,950	--	23	108	--	422	2,280
Percentage Forecast Over/Under Estimated	25%	(-17%)	--	3%	20%	--	5%	20%

MAs have reported experiencing difficulty forecasting training requirements due to:

- Insufficient information on the various units and MOCs;
- An increased operational tempo; and
- Changing priorities.

Also, not all units were using the ITMIS consistently to track forecasts and subsequent adjustments, and the Financial Managerial Accounting System (FMAS) only provides a method of tracking expenditures after the fact. Initial estimates for the annual business plan are often based on school capacity and/or historic data, rather than planning analysis.

¹⁴ Canada Without Armed Forces? Edited by Douglas L. Bland. Published in Kingston, Ontario, School of Policy Studies, Queens University, 2003. Claxton Papers, #4.



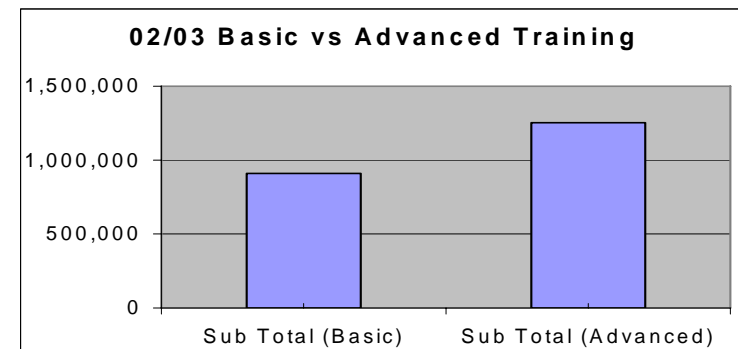
The CF Lacks Sufficient Coordination of Basic IT&E. In 1990, the OAG recommended that the CF should improve its planning for training requirements and production. To date, adequate mechanisms have not been implemented to monitor production impacts and adjust resources to meet the changing priorities on a CF-wide basis for IT&E. Insufficient coordination remains between production planning, recruitment and IT&E establishments, resulting in a severely strained training system that cannot meet the demand:

- Number of regular members recruited annually increased dramatically from 2,623 in 1999/00 to 6,207 in 2002/03, an increase of 3,584 (136 percent);
- Despite recruiting efforts, shortages remain in critical skill sets for Engineers, Health, Fire Fighters, Avionics, amongst others;
- Wait times for training are generally less than three months, but have been as long as two years in the case of Pilots;
- Recruitment of pilots was reduced in 2003 due to financial pressures despite a forecasted shortage of trainees by 2004; and
- The total number of Personnel Awaiting Training (PATs) for the CF is not readily available. There is no single organization responsible for monitoring PATs and accounting for them requires a labour intensive exercise by most MAs.¹⁵

The increased rate of recruiting is forecasted to continue over the next few years, without the benefit of a coherent/coordinated training plan that is directly linked to these increases.

¹⁵ As of April 2004, the total number of recruits in training was 8,033 as indicated in the DFPPC April 2004 report. PATs are included in this number, but there is no indication of the specific number.

A CF Priority Allocation System for Advanced IT&E is Lacking. Advanced IT&E includes the requirements for Advanced and specialty qualifications of military members. In 2002/03, MAs reported more Advanced than Basic Training days as shown in the diagram below:



Although MAs are responsible for identifying Advanced IT&E forecast requirements an overarching policy or guidance document for the quantity control process does not yet exist. A manual is being developed and will be available in 2004/05. Without adequate guidance, there cannot be any assurance that quantity control is consistently applied. Many MAs stated that obtaining information for Advanced production is done on an ad hoc basis, causing difficulty in planning for the IT&E demand.

A course may be scheduled and fully committed well in advance of the course date. However, training establishments have identified that there are frequent cancellations prior to the course based on priority deployments and re-assignment of members. As a result, the training establishment may run a course at less than optimum capacity. This leads to an inefficient use of limited IT&E resources and training capacity.



According to CFITES, nominations of specific members for Advanced IT&E are to be placed in appropriate priority for assigned MA resources. However, a Forces-wide priority allocation system has not been implemented to identify who should receive training first. Examples of difficulties encountered include:

- The Senior Leadership Course (SLC), a pre-requisite for promotion from Sergeant to Warrant Officer, is two years behind in training, with a backlog of about 500 to 600 members;
- Backlogs in training result in some members being in Acting Lacking Status (member is lacking a qualification, but has the rank required for a position); and
- There is an estimated backlog of 700 to 1,000 members appointed Acting Lacking Master Corporal who require Primary Leadership Qualification (PLQ) training, along with a requirement to train approximately 2,000 additional members yearly.

Career Managers do not have a Priority List for Acting Lacking Candidates. ITMIS/PeopleSoft does not provide accurate and complete information on Acting Lacking candidates to allocate training on a priority basis with the following impacts:

- Timing for members sent on a course does not consistently reflect a job-related need;
- Acting Lacking members are at times placed in an operational situation for which they do not have the required qualifications; and
- Career progression may be slowed if a member gains experience and is ready for promotion, but does not have the required qualification.

Advanced Training has been Deferred to Accommodate the Basic Training Priority. Much Advanced training at the journeyman level for NCMs has been deferred since the years of the Force Reduction Program (FRP) and to accommodate the recruiting surge that began in 1999/00. The actual number and specific courses deferred were not centrally available. The CF planned to recruit approximately 7,000 new members annually to 2003/04 and then stabilize annual recruitment at about 5,000. As the newer recruits move to Advanced training a second peak in demand is likely to be created. This will be combined with additional pressure to conduct the deferred training. The training pressure is further complicated by the demographic profile of the NCMs as follows:

- A substantial proportion of the NCM population will be in a position to leave the CF within the next two to eight years (projected numbers are not available); and¹⁶
- Attrition is expected to increase leading to an erosion of experienced personnel to conduct operations and train others.

A reliable production planning and forecasting approach is necessary given the interrelationships between MAs that have resulted from the decentralized IT&E system. On a CF-wide basis, the DA requires production-planning mechanisms to identify the training demand and assess if adequate capacity is available.

¹⁶ Source: Career Flow Implications of Terms of Service Proposals For Non-Commissioned Members, Operational Research Division, June 2002.



Validation Process is not Routinely Conducted. MAs are responsible for conducting the validation process to ensure that trainees have learned and are applying the necessary skills and knowledge. All active qualifications must be validated over a five-year cycle and MAs are expected to complete 20 percent of the qualifications annually.

- Most MAs are not achieving this target due to resource management pressures and training establishments do not receive feedback in a timely manner;
- The four-year cumulative percentage of qualifications validated ranged from 13.5 percent for the Chief of the Air Staff (CAS) to 42 percent for the Chief of the Maritime Staff (CMS); and¹⁷
- Qualifications are validated based on which ones are considered most in need of attention.

Without a robust validation process, the CF does not have reliable information to assess the effectiveness of IT&E.

Minimal use of accreditation and equivalencies in the CF.

The CF aims to recognize military training and experience that is equivalent to the civilian sector, and prior civilian learning that is equivalent to military training. To achieve this, the CF has established the Military Civilian Training Accreditation Program (MCTAP) and the Canadian Forces Military Equivalencies Program (CFMEP), which are administered through the CF Personal Enhancement Program (PEP). Responsibility for the PEP was transferred from DTEP to CDA during our evaluation.

In general, progress with IT&E accreditation and the granting of equivalencies has been piecemeal and slow.

- The Canadian Forces Equivalencies Database (CFED) currently contains the known accreditations and equivalencies from the MCTAP and the CFMEP. The initial database is being redesigned to provide more user-friendly data-input and a report generation function. The CFED was not yet fully functional at the time of our evaluation;
- MAs are responsible for evaluating an individual's request for an equivalency by conducting a prior learning assessment (PLA), against the CF requirements. A complete review of all Advanced courses has not been done to determine if equivalencies can be granted;
- The CDA has registered about 4,000 people for the Officer Professional Military Education (OPME) courses and estimates that PLA exemptions have been granted for approximately 5,000 courses, or a saving of about 25 person years; and
- Other remaining work includes assessing MOCs, developing training modules to help CF members prepare accreditation documentation, and contracting with civilian organizations to accredit military training and education.

Qualification standards are not always aligned with training plans. CF training is based on the Military Occupational Structure (MOS), which is the arrangement of related Officer and NCM jobs into occupational groupings based on job requirements. The MOS facilitates the control, training and management of personnel resources. This structure establishes the curriculum, the schedule and timing for length of training, and career progression. It also establishes a Qualification Standard (QS), which is an operational outcome that an individual is expected to achieve upon completing training. Training establishments are responsible for developing a Training Plan (TP) that meets the

¹⁷ 2001/02 IT&E Verification Report, Appendix 2, Annex A, August 2003.



requirements of the QS. Training plans must reflect the QS to ensure that the effectiveness of the training can be validated and that the CF is training to the intended outcome.

Based on our interview data, many training establishments indicated that the TP does not match the QS for all courses. The formal process to change the Occupation Specification is lengthy. Although training establishment commanders appear to recognize the need for a formal change process, they confirmed having made changes to TPs informally to maintain course relevancy and keep up with the pace of change in some occupations. Actions are being taken to align TPs to the QS:

- The CFSTG is currently obtaining baseline data to review the occupation specification, QS, and TP for consistency;
- The Army, at CTC Gagetown, is incorporating greater control on separating the QS and TPs within a training establishment; and
- The CDA plans to review the QS, TP and selection, training and education practices at the CFRG, the Canadian Forces Leadership and Recruit School (CFLRS) and the Royal Military College (RMC).

Best Practices in Related Organizations

U.K. Ministry of Defence Training Review (2001) reported that:

- A performance monitoring and evaluation unit will be established to ensure centrally defined individual training and education standards and targets are met; and
- A Defence training and education accreditation cell will be created with responsibility for coordinating the accreditation of defence training, and education and control the validation and accreditation procedures.

Recommendations

OPI	ACTIONS
ADM(HR-Mil)	Create an organization responsible to plan for training requirements and forecasting, and to coordinate production with recruitment and training. This organization should have the appropriate authority to direct MAs to take priorities for the entire CF into account and make the necessary trade-offs. Establish a priority allocation system for Advance IT&E.
DTEP	Ensure compliance with the requirement for all active qualifications to be validated over a five-year cycle, e.g., 20 percent of qualifications to be validated annually. Explore innovative processes to conduct validation efficiently and effectively.
MAs	Establish a target for conducting new accreditation reviews and updating previous accreditations on an annual basis. Complete the review of all Advanced courses to determine whether equivalencies could be granted.
DTEP	Maintain comprehensive accreditation and equivalency processes to ensure that military skills and/or experience are transferable to the civilian sector upon completion of the term of service and that prior learning is recognized.
MAs	Ensure that training plans reflect the appropriate Qualification Standard.



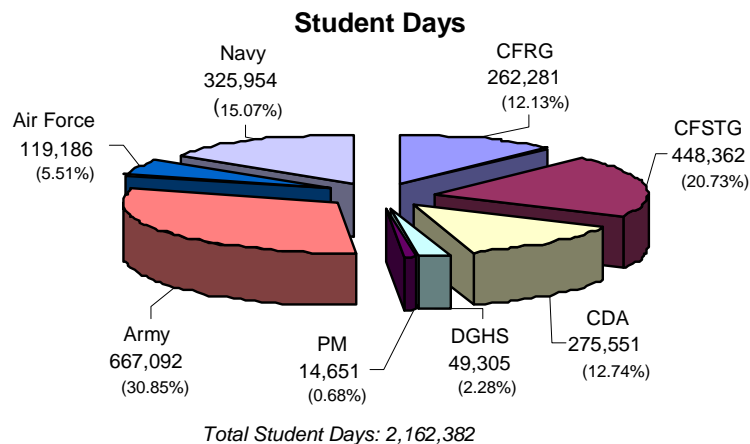
RESOURCE MANAGEMENT

Evaluation Questions

- *Do the resource allocation mechanisms (personnel, materiel, facilities and funds) support achieving IT&E objectives in a cost-effective manner?*
- *Is there adequate information for planning, decision making and performance measurement?*

Current Approach to Resource Management

In fiscal year 2002/03, there were 9,829 military, reserve and civilian PYs allocated to administration and delivery of IT&E. These resources were used to generate an output level of approximately 2.16 million student-days, as shown below, in 73 schools for a reported cost of \$1.6 billion.¹⁸



IT&E activities have increased significantly over the past few years as illustrated in the table below:

¹⁸ This information was provided by MAs to CRS in October 2003.

Fiscal Year	Student Days
2000/01	1,404,831
2001/02	1,971,691
2002/03	2,162,382
2003/04 (forecast)	2,540,926
2004/05 (forecast)	2,560,456
2005/06 (forecast)	2,417,419

Business and resource planning for IT&E is primarily concentrated amongst L2 organizations. IT&E resource requirements are included in the detail of the L2 plans, which are rolled up into the L1 business plans. This process tends to reduce the visibility of IT&E, especially in the absence of a requirement to produce an integrated IT&E resource summary for each. Without reliable performance measurement, the CF cannot assess if the ratio of inputs (number of PYs) to outputs (student days) is efficient or not.

Some MAs are endeavouring to improve their resource management systems. For example:

- CFSTG has established a centralized resource planning and management process for its schools and lodger units, and has modified its budget monitoring process to incorporate quarterly reviews and potential re-allocation of resources to accommodate short-term variations in requirements at Level Three (L3); and
- CDA has developed a resource management model to identify its full costs. As a result, the CDA experienced fewer difficulties submitting expenditure data requested during this project.

The MITE module was deployed in November 2003 as an upgrade to ITMIS. MITE supports the key quality and quantity control elements of CFITES.



Resource Management Issues

Fundamental Role of IT&E Within Force generation and Readiness is not Sufficiently Visible in Business Planning and Budgeting Processes. IT&E requirements and activities have limited visibility in the CF's strategic planning, business planning and resource allocation processes. This exists despite expenditures in the order of \$1.6 billion per year and 9,829 PYs involved in the provision of IT&E, and the inclusion in the Corporate Priorities for 2003/04 of a need to *further develop learning and professional development programs* as part of Putting People First.

Strategic Force Generation Depends on the Availability of a Sufficient Number of Members with the Requisite Skills and Training. This has emerged as the number one priority for achieving the desired capability level, according to the Capability Outlook 2002–2012, issued by the VCDS in July 2002. This report concludes that:

- The most important priority for DND/CF is to address problems in strategic force generation. In particular, a long-term solution to the challenge of recruitment, development and retention of sufficient numbers of skilled military and civilian personnel must be developed;
- Maintaining the range of skills needed today and into the future will remain a challenge; and
- The strategic force generation gap is critical because the consequences resonate in many other areas. The shortage of sufficient skilled and experienced people undermines virtually all capabilities...all of the other overarching priorities are linked in some way to this number one priority.¹⁹

Although a more direct linkage between resource planning, policy and direction setting for IT&E would focus more attention on strategic management and integration, this would not be enough. Consistent approaches to the delivery and monitoring of IT&E performance, along with support planning and resource management would also be necessary.

Resource Planning is Fragmented and Poorly Aligned. MAs do not know how much they are spending on their respective IT&E programs due to factors such as:

- Resources are not consistently allocated as IT&E activities. Resources for IT&E may come from several different budgets, sometimes for CF organizations not directly under the control of the MA (e.g., for base support and infrastructure provision); and
- Major resource components, such as military salaries, infrastructure and other support costs, are not identified.

On a program basis, MAs have limited ability to manage IT&E resources and budgets. For example, MAs are not permitted to re-allocate savings achieved in one area to meet the needs in other areas. This is a disincentive to increasing efficiency. Fragmented ownership of resources and budgets, combined with resource shortfalls and constraints, tends to result in managers safeguarding their available resources.

From a CF/DND perspective, the additional number of MAs has increased the number of resource management stovepipes. Further, it is not possible to readily establish and quantify linkages between IT&E inputs, activities and outputs. Nor can the adequacy and fairness of current resource allocations be reliably determined.

¹⁹ VCDS, Capability Outlook: 2002–2012, July 2002.



Poor Data Integrity has Limited the Quality of Information Available. At the time of the CRS evaluation, ITMIS was still supporting the IT&E process of the CF. It was observed that poor data integrity was limiting the value of ITMIS. The evaluation team has been assured that the previous data integrity issues have been addressed or eliminated with the implementation of MITE. Ongoing monitoring of data integrity should, however, continue to ensure that issues do not recur.

Cost-management is lacking. Over the past ten years, the OAG has observed that the DND costing of individual training is inconsistent and that it is impossible to determine on a system-wide basis whether it is being conducted in a cost-efficient manner.

An April 2003 OAG report on the quality of financial information identified as an issue the inability of departments to report accurately on the full costs of their programs.

As part of our evaluation, MAs were asked to supply cost information as an indication of the effectiveness of the tools being used in the absence of a CF-wide IT&E costing system. MAs reported experiencing the following difficulties:

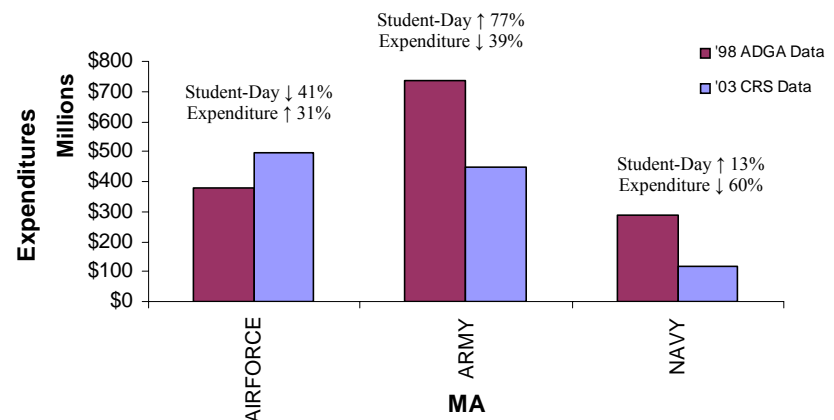
- IT&E cost information is neither readily available nor reliable. ITMIS is designed to capture IT&E costs, but the system is unreliable and incomplete due to inconsistent input by users. Obtaining basic annual IT&E data is a labour-intensive exercise for some MAs; and
- Most MAs added the caveat that the costing data needs to be used with caution as generally they are not confident about the accuracy and reliability of the information provided to the CRS team.

The table below provides a comparison of cost data collected by the ADGA Group in 1998 and data provided by MAs to CRS in 2003, indicating the discrepancies in the data.

Total IT&E expenditure was reported to be approximately \$2 billion in 1998 (ADGA Report) and \$1.6 billion in 2003 (CRS data collection). This indicates a reduction in IT&E expenditure of approximately \$400 million although total student days were reported to be greater in 2003 than in 1998 (2,162,382 vs. 1,567,089). The expenditure difference can be attributed to the lack of an effective costing system and inconsistent definitions of what is considered as and reported to be an IT&E expenditure.

Student-Days	Air Force	Army	Navy
1998	201,090	376,210	289,700
2003	119,186	667,092	325,954
Difference	(41%)	77%	13%

1998 ADGA vs. 2003 CRS Expenditures



Slow Development of the IT&E Costing Model Limits the Availability of Critical Management Information. To rectify the costing deficiency identified in the 1998 study conducted by the ADGA Group, an IT&E Costing Model was developed by ADM(HR-Mil). The Costing Model is designed to identify, track and report costs associated with the management and delivery of IT&E activities. A project team was created in September 2001 with a goal to implement a costing system in 2004/05.

Work to date on the IT&E Costing Model has focused on a rationalized apportionment of costs and therefore, is not intended to be used as the sole source of information to support decision-making. Resource limitations and inconsistent use of Financial Information System (FIS) internal codes to record IT&E costs by all MAs have been cited as key reasons for the development of the proposed model.

The costing model is expected to be a 70-80 percent solution that will provide guidance on the effective use of resources. It requires minimum effort on the part of L1s. Key to the IT&E Costing Model and subsequent database is that it will use information from existing systems:

- Defence Personnel, Operations and Maintenance Model (DPM) for financial data; and
- The Human Resource Management System (HRMS)-MITE for training data.

Overall consensus of the L1s is that the IT&E Costing Model is acceptable for their needs.

Limitations of the IT&E Costing Model include:

- As an attribution/apportionment model, there is a risk that resource costs will be allocated to training activities that may not actually use or consume them e.g., the model may attribute vehicle costs to courses that do not use them;
- Infrastructure costs are based on formulas for allocating indirect costs and, as such, represent only approximate estimates;
- Only courses that are managed through HRMS-MITE modules as directed in ADM(HR Mil) Functional Planning Guidance, will receive a cost associated with the activity;
- Full cost by MOC will not be available until the Training Program of HRMS-MITE module is populated by MAs;
- Salaries for students or incremental staff, not on establishment with the training agency/organization, will not be captured against any one specific training activity, as their salaries will be held accountable and apportioned against IT&E activities within the Parent establishment;
- The IT&E Costing Model will use information from existing systems, making data integrity and timeliness crucial; and
- FMAS has been implemented differently across the CF, resulting in costs not being accounted for consistently across all Levels.

At the time of the CRS evaluation, a Phase 2 of the model was under consideration. Current thinking is that Phase 2 will only be implemented if it is identified that a better understanding of relationships between program delivery requirements and corporate support enablers is required.

Within two years of implementing the Costing Model, the CRS evaluation team recommends that an assessment be conducted to determine whether it is worth expending additional resources



to collect data related to individual cost drivers. An alternative approach might be to develop/extend the model to provide reliable costs per school or program rather than evolving from a high level model to a detailed cost per qualification level as originally envisaged for Phase 2. In making this decision, the most important factor to consider is what level of detail will best suit the Department's particular business needs.

Best Practices in Related Organizations

PricewaterhouseCoopers Review of DND's L1 Business Plan identified that:

- Business plans should provide a reasonable overview of the organization's framework for service delivery as the basis for informed resource allocation;
- Resource allocation decisions should be based on a solid understanding of the costs of carrying out specific activities and producing specific outputs; and
- Business plans should identify resource gaps and their impacts.

U.S. General Accounting Office (GAO) Human Capital Report identified key lessons learned in the design of training programs:

- Link the agency's workforce planning efforts with training needs assessments to ensure consistency and enhance strategic alignment;
- Develop and use criteria for determining the optimal mix of delivery mechanisms to use in order to select the most effective approaches given each learning situation; and
- Take into account all relevant factors for determining the costs of a training and development program to better ascertain whether it is cost-effective in relation to benefits achieved.

Recommendations

OPI	ACTIONS
VCDS, ADM(HR-Mil)	Provide greater visibility to the IT&E resource requirements and activities in the CF's strategic and business planning and resource allocation processes. Ensure IT&E resources can be readily identified in financial plans/budgets.
VCDS, ADM(HR-Mil), ADM(Fin CS)	Review and clarify the roles and responsibilities of the DA and MAs in business planning and determination of IT&E resource requirements.
VCDS, ADM(HR-Mil), MAs	Investigate the merits of establishing common formulas to forecast total IT&E resource and funding requirements. The funding formulas should be linked to output levels and other factors that impact on resource requirements, and make provision for differences due to the varying nature of occupational training requirements (and their cost/resource implications) across the CF.
MAs/DTEP	Make reliable cost information available to manage IT&E activity, monitor the return on investment and maintain accountability for the use of public funds.
ADM(HR-Mil)	Two to three years after the implementation of the Costing Model, conduct an assessment to determine whether the information being generated is adequate for the purposes of: <ul style="list-style-type: none"> ▪ Improving strategic decision making; and ▪ Discovering opportunities for cost improvement.



DELIVERY STRATEGIES

Distance learning is not new. Courses have been delivered via television and video for many years. Widespread access to the Internet provides a new and powerful option: online courses in which teachers and students exchange information, engage in discussions and collaborate online. The DLN is an example of a revolutionary project within the DND/CF that will dramatically change the way a military or civilian member can learn. The DLN is being developed jointly by the DND/CF as a dynamic delivery system for anywhere, anytime, just-in-time training to all members, using the power of the Internet. It will offer civilian professional career development services as well as provide an environment where continuous learning, employee development, career mobility and recognition for service are valued and supported.

This section highlights the key points of a separate review of e-Learning for the military that was conducted concurrently with the more over arching IT&E evaluation. A detailed report entitled **Review of the E-Learning Component of Military Individual Training and Education** is available as **Volume 2** of this document.

Objectives of the CRS review were to:

- Assess the status of e-Learning development and implementation activities for military training and education;
- Research e-Learning best practices and trends in other military and leading-edge civilian organizations;
- Identify opportunities and constraints in the internal environment; and
- Develop strategic recommendations in support of the e-Learning initiative.

Overall Findings and Conclusions

A coordinated approach to the development of an e-Learning strategy, built around a shared technology platform, has not yet taken place, but would offer the potential to rationalize scarce learning resources. The review concludes that the DND/CF is currently investing significant resources in the DLN, with a proposal to invest over the next five years. At the same time, there are serious impediments that are preventing rapid progress to support innovative continuous learning opportunities. The DLN offers a central learning platform for e-Learning, but MAs are still each pursuing independent initiatives, which can lead to fragmentation, duplication and inefficient use of funds. Information Management (IM) is also critical to e-Learning success and currently access to e-Learning applications is not available to most CF members from their work-stations. Solutions to address security and firewall restrictions are being examined, but progress has been slow.

Amidst the IM challenges, the DLN is being tested and refined through a Proof of Concept (PoC) phase. The purpose of the PoC is to test a preliminary design of the DLN in a controlled setting, with the intent of developing a detailed statement of operational requirements. However, development of the DLN has not been based on a commitment to achieve cost savings nor a return on investment target.

Successes include launching the PoC and maintaining a website, <http://hr.ottawa-hull.mil.ca/dln-rad/>, that provides information to all DND/CF learners. The PoC approach is lengthy and full implementation is targeted for 2006/07. In the interim, MAs are proceeding with separate initiatives, while timely, do present a risk that parallel initiatives will work against the success of the departmental investment in

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e-Learning. In addition, relevant and useful electronic courseware²⁰ is a critical success factor for an e-Learning initiative, yet a coordinated DND/CF-wide plan to convert and design new courses has not been developed. The DLN project office is dependent on the MAs to provide courseware to be delivered through the DLN. Most MAs have limited expertise to develop electronic delivery formats for courses. The PoC has few courses running, but did trial different types of courses, and used a range of e-Learning applications.

E-Learning also involves an organizational culture change to embrace non-traditional ways of conducting and delivering IT&E. A governance structure is not yet in place to resolve horizontal challenges that are department-wide in scope, nor is there authority vested with a single process-owner for e-Learning who can control the acquisition of multiple learning systems. Sustained progress towards the resolution of challenges will require continued joint effort and cooperation between the DLN project team and MAs, as well as other L1s.

The opportunity exists to exploit learning technologies to augment the capacity and effectiveness of military training and education. The DND/CF can profit from the strategies of other leading organizations. For example, the U.S. Navy, Cisco Systems, and Central Texas College have live systems with robust functionality and large numbers of users. The Australian Defence Force (ADF), and the U.K. Ministry of Defence (U.K. MoD) are positioned to realize the implementation of centralized systems and are either finishing up procurement processes or well into implementing commercially available off-the-shelf systems.

²⁰ “Courseware” is defined as any type of instructional or educational course delivered via a software program or over the Internet. Source: Learning Circuits, American Society for Training & Development’s Source for E-Learning.

In comparison, the DND/CF can benefit from the experiences of these organizations, particularly the international defence community. Although the e-Learning initiatives of comparative organizations may differ in scope, the DND/CF can benefit from lessons learned from other organizations for the way ahead. A significant feature of the DLN is the provision of a learning network that will be accessible to both military members and civilian employees, Learning and Career Centres at CF Bases and support infrastructure. The DLN has also focussed on custom military training, rather than simply selecting off-the-shelf courses.

Key recommendations of this review are focused on improved coordination for strengthened progress in advancing e-Learning as follows:

- Develop a comprehensive DND/CF vision and objectives, for e-Learning that is integrated with the IT&E learning strategy, and supported by a shared technology platform;
- Establish a well-defined governance and accountability framework for managing e-Learning and technology strategies;
- Develop a coordinated course strategy and implementation plan for electronic delivery, with full MA commitment, that justifies the corporate learning investment, and identifies content needs that can be addressed collectively or independently;
- Define performance measures for both the quantitative and qualitative benefits and implement a costing system to monitor Return on Investment associated with e-Learning; and
- Develop a strategy to resolve the IM infrastructure obstacles to allow full user accessibility to the DLN.



ANNEX A—SUMMARY OF RECOMMENDATIONS

KEY RECOMMENDATIONS	OPI			
	DA	MAs	VCDS	DTEP
1. Seek sufficient authority and resources from the CDS to ensure adherence to the IT&E policies, strategic directions and management framework.	☆			
2. Create an organization responsible for production planning, with the appropriate authority to direct MAs to take priorities from the entire CF into account and make the necessary trade-offs.	☆			
3. Provide sufficient strategic direction for consistent planning, management and measurement of IT&E. Integrate performance measurement with strategic planning and budgeting.	☆			
4. Develop an IT&E Strategic Plan that identifies CF-wide objectives for the planning, management and delivery of IT&E. MA and other stakeholder involvement with the DA will be necessary to ensure that the final product establishes an agreed medium-term direction for IT&E activities and supporting improvement initiatives.	☆			
5. Provide greater visibility to the IT&E resource requirements and activities in the CF's strategic and business planning and resource allocation processes. Ensure IT&E resources can be readily identified in financial plans/budgets.	☆		☆	
6. Make reliable cost information available to manage IT&E activity, monitor the return on investment and maintain accountability for the use of public funds.		☆		☆
7. Eliminate the time delays between action, reporting and learning by tracking IT&E results on an ongoing basis. Provide on-line access to an IT&E scorecard in real time.	☆			
8. VCDS and ADM(HR-Mil) to jointly seek authority from the CDS and DM to create a task force, with participation from the DA and all the MAs to identify rationalization and cost-saving opportunities within the DND/CF training and education system.	☆		☆	
9. Ensure compliance with the requirement for all active qualifications to be validated over a 5-year cycle, e.g., 20 percent of qualifications to be validated annually. Explore innovative processes to conduct validation more efficiently and effectively.				☆
10. Maintain comprehensive accreditation and equivalency processes to ensure that military skills and/or experience are transferable to the civilian sector upon completion of the term of service.				☆



ANNEX A

SECONDARY RECOMMENDATIONS	OPI				
	DA	MAs	VCDS	ADM (Fin CS)	DTEP
11. Clarify IT&E roles, responsibilities and accountabilities of DTEP and CDA.	★				
12. Conduct a risk management assessment as part of all major strategic and policy decision-making.	★				
13. Review performance measures identified in IT&E Verification matrix to ensure there is a balance between outputs and outcomes.	★	★			
14. Monitor issues identified in the verification report to ensure resolution and that corrective action is taken to enhance performance.	★				
15. Provide Functional Planning Guidance in sufficient time to enable business planners to include the information in their proposed plans and budgets.	★				
16. Allow sufficient time to review adherence of proposed L1 Business Plans to the ADM(HR-Mil) Functional Planning Guidance.					★
17. Establish a target of conducting new accreditation reviews and updating previous accreditations on an annual basis. Complete the review of all advanced courses to determine whether equivalencies could be granted.		★			
18. Ensure that training plans reflect the appropriate Qualification Standard.		★			
19. Provide greater visibility to the IT&E resource requirements and activities in the CF's strategic and business planning and resource allocation processes.	★		★		
20. Review and clarify the roles and responsibilities of the DA and MAs in business planning and determination of IT&E resource requirements.	★			★	
21. Investigate the merits of establishing common formulas to forecast total IT&E resource and funding requirements. The funding formulas should be linked to output levels and other factors that impact on resource requirements, and make provision for differences due to the varying nature of occupational training requirements (and their cost/resource implications) across the CF.	★	★	★		



ANNEX A

SECONDARY RECOMMENDATIONS	OPI				
	DA	MAs	VCDS	ADM (Fin CS)	DTEP
22. Within two years after the implementation of the Costing Model, conduct an assessment to determine whether the information being generated is adequate for the purposes of: <ul style="list-style-type: none"> Improving strategic decision making; and Discovering opportunities for cost improvement. 	✱				



ANNEX B—SIGNIFICANT EVENTS AND CHANGING ENVIRONMENT IMPACTING IT&E

2003

- Bland Report “Canada Without Armed Forces?” discussed personnel crisis and training difficulties.
- Report to the Minister of National Defence “Achieving Administrative Efficiency” recommended E-Learning and distance learning initiatives be vigorously pursued to reduce training related costs.

2002

- OAG Report on Recruitment and Retention of Military Personnel identified shortages in most military occupations and that military human resource management expertise requires improvement.
- CDA stood up April 2002 with a mission to champion life-long learning for military members.

2001

- CAC study for VCDS “Governance Framework for a Canadian Defence Academy (CDS)”.
- DAOD 5031 replaced 4-94 IT&E Management Framework. Increased decentralization to eight MAs.
- CAC study for ADM(HR-Mil) and VCDS “CFRETS Organizational Review” recommended to disband CFRETS.
- CDS & DM directed merger of HR projects. Resulted in joint ADM(HR-Mil) and ADM(HR-Civ).

2000

- Learning and Career Centres project established under ADM(HR-Civ).
- Defence Distributed Learning System project established under ADM(HR-Mil).
- Recruiting shortages and surge.

1990

- Ministerial direction for a degreed Officer Corps.
- October 1998 speech from the throne requiring departments to become learning organizations.
- VCDS study by ADGA “Analysis of DND/CF” found IT&E activity more than 20 percent of annual Defence budget (1998). Improvements required for IT&E.
- Report to Prime Minister “Leadership & Management of the CF” (1997) identified deficiencies in training & education.
- Enhance use of computerized support system ITMIS.
- CFITs updated and renamed CFITES to reflect more all-encompassing IT&E focus.
- 4-94 IT&E Management Framework introduced. Established ADM(HR-Mil) as DA and four MAs.
- ADM(Per) re-organized to ADM(HR-Mil) and ADM(HR-Civ).
- CFTS in Trenton re-organized to CFRETS in Borden (1994).
- FRP Downsizing CF from 90,000 to 60,000. Re-organization, re-engineering, unit amalgamations and closures (1994-1998).
- OAG reports (1990, 1994, 1996) required improvements in planning training and production; efficiency, IT&E Costing, etc.



ANNEX C—EVALUATION FRAMEWORK (IT&E)

Evaluation Questions, Data Source and Methodology

Broad Objective: To provide members with professional development (training, education, self-development and experience) necessary to support the mission to defend Canada and Canadian interests and values while contributing to international peace and security.

EVALUATION ISSUES	INDICATORS	DATA COLLECTION METHODOLOGY
Supporting Processes – Is the Management Framework and supporting processes adequately supporting program implementation?		
<i>Governance Structure & Performance Measurement</i> 1. Does the governance framework provide a coordinated approach to oversee and manage IT&E? 2. Are roles and responsibilities of the DA/MAs and all the stakeholders clearly understood and accepted? 3. Do the performance measurement systems provide the necessary tools to monitor IT&E performance?	<ul style="list-style-type: none"> ▪ Extent that the IT&E management framework ensures that roles and responsibilities are understood, and working effectively; ▪ Evidence of an adequate performance measurement model; ▪ Linkages to strategic direction, business plans and policy decisions; ▪ Results from the annual Verification Report; and ▪ Evidence on how the Report data is used for IT&E decision-making and achievement of departmental objectives. 	<ul style="list-style-type: none"> ▪ Interviews with IT&E stakeholders; ▪ Documentation review; and ▪ Review of best practices.
<i>Resource Management</i> 4. Do the resource allocation mechanisms (personnel, materiel, facilities and funds) support achieving IT&E objectives in a cost-effective manner? 5. Is there adequate information for planning, decision making and performance measurement?	<ul style="list-style-type: none"> ▪ Evidence of available and reliable information on related IT&E costs and activities; ▪ Extent to which IT&E systems, structures and processes can adequately manage throughput; ▪ Evidence of training and education being scheduled and funded in time to meet demand; and ▪ Availability of systems to provide adequate information for decision making and managing IT&E. 	<ul style="list-style-type: none"> ▪ Interviews with IT&E stakeholders; ▪ Documentation review; and ▪ Data analysis.



ANNEX C

EVALUATION ISSUES	INDICATORS	DATA COLLECTION METHODOLOGY
Rationale and Relevance – Does IT&E continue to make sense in today’s defence environment?		
<i>Strategic & Policy Guidance</i> 6. To what extent is the application of IT&E strategic direction and policy guidance clearly articulated, understood, accepted and followed? 7. Are there adequate supporting policies and processes to facilitate implementation of plans and the delivery of services at the Managing Authority level?	<ul style="list-style-type: none"> ▪ Degree to which strategy guides IT&E activities; ▪ Extent to which policies are perceived to be adequate, appropriate and implemented; and ▪ Degree to which the IT&E management and committee structure are viewed as providing sufficient governance of CF IT&E activities. 	<ul style="list-style-type: none"> ▪ Document review of key strategy documents, policies and committee terms of reference; and ▪ Interviews with relevant IT&E stakeholders.
Success – What impacts and outcomes are identified, measured and achieved for IT&E?		
<i>Program Efficiency</i> 8. Are the IT&E activities cost-effective? Are there more economical ways of doing things, while preserving the quality and effectiveness of IT&E? 9. Are opportunities for IT&E outsourcing, partnerships and contracting being sufficiently explored?	<ul style="list-style-type: none"> ▪ A target has been established for the ratio of administration to program costs; ▪ Evidence of initiatives to reduce administrative costs; ▪ Efforts have been expended to consolidate DND/CF IT&E Infrastructure; ▪ A long-term departmental IT&E infrastructure strategy exists; and ▪ Targets have been established for the utilization of civilian academic infrastructure. 	<ul style="list-style-type: none"> ▪ Interviews with IT&E stakeholders; ▪ Benchmarking with other military organizations; ▪ Documentation review; and ▪ Data analysis.
<i>Program Effectiveness and IT&E Production</i> 10. Are the IT&E activities and processes providing the right people with the right knowledge, skills and attitudes, at the right time, and for the right cost? 11. What are the IT&E production issues?	<ul style="list-style-type: none"> ▪ Shortages in critical skill sets that are affecting the CF’s ability to meet its mandated activities; ▪ Results from evaluation assessment of the adequacy of the forecasting processes; ▪ Extent to which the CFITES Quantity and Quality Control process meets the IT&E stakeholder needs; and ▪ Evidence that qualification standards and training plans are documented to detail course performance objectives. 	<ul style="list-style-type: none"> ▪ Interviews with IT&E stakeholders; ▪ Benchmarking with other military organizations; ▪ Documentation review; and ▪ Data analysis.



ANNEX C

EVALUATION ISSUES	INDICATORS	DATA COLLECTION METHODOLOGY
Alternatives – What changes and improvements can be made to IT&E to increase effectiveness and efficiency?		
<i>Delivery Strategies</i> 12. Are learning innovations being implemented for IT&E? (Review of E-Learning)	<ul style="list-style-type: none">▪ Analysis of e-Learning in context of the findings of the evaluation; and▪ Comparisons with best practices and trends.	<ul style="list-style-type: none">▪ Interviews with IT&E stakeholders;▪ Best practices and benchmarks from other military and private/public sector organizations; and▪ Documentation review.

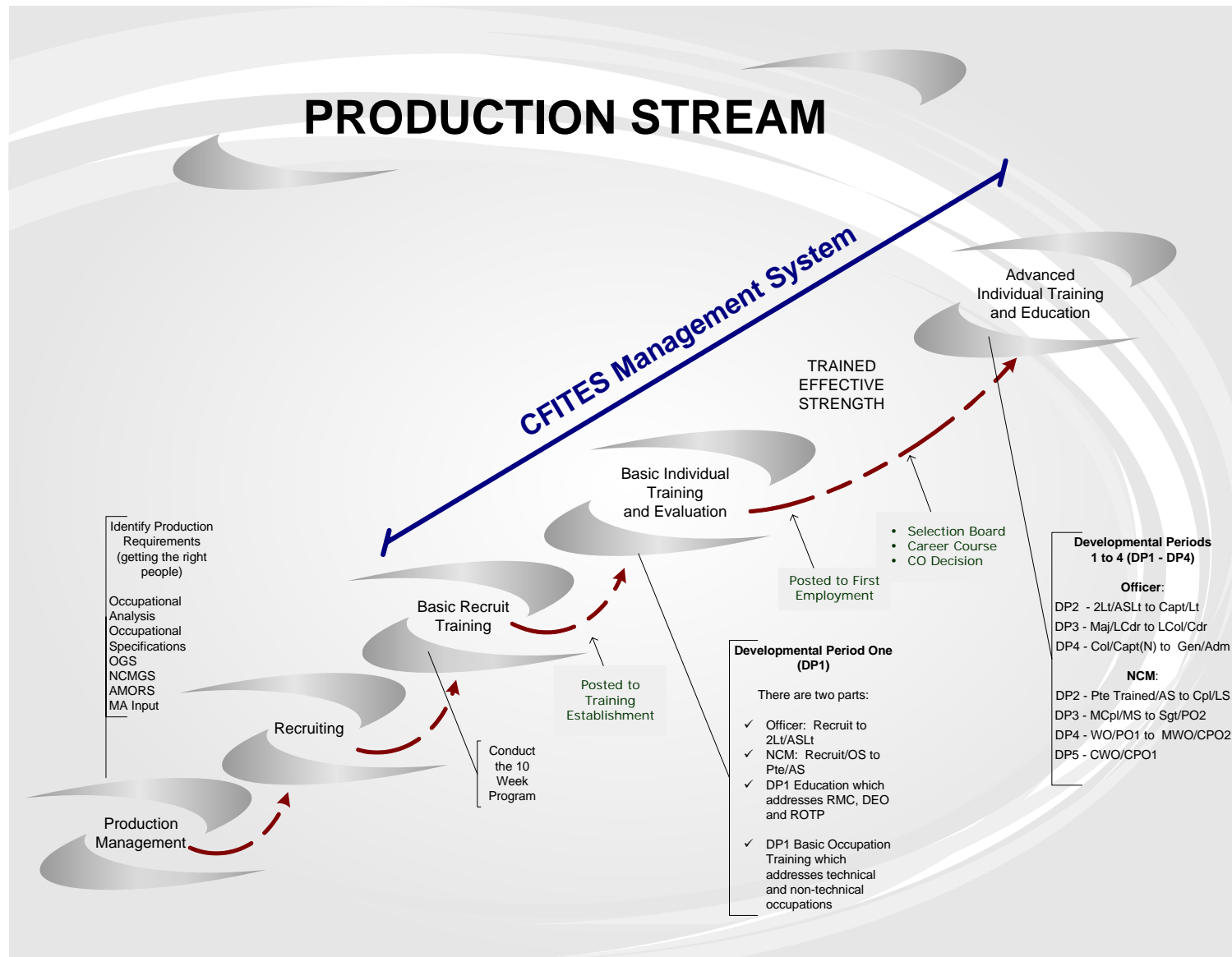


ANNEX D—SOURCES OF DATA

1. Literature and Document Review
<ul style="list-style-type: none">▪ Published and unpublished literature on professional development and training policies, programs and outcomes in both private and public sectors, especially military allies.▪ Strategic documents of DND/CF.▪ Previous evaluation reports conducted on IT&E by consultants, Office of the Auditor General, etc.
2. Statistical Analysis
<ul style="list-style-type: none">▪ Expenditure data on IT&E, levels and trends by type of activity.▪ Service delivery, quality, etc.
3. Field Visits and Structured Interviews with Key Stakeholders
<ul style="list-style-type: none">▪ IT&E managers, directors, etc.
4. Data Collection & Analysis
<ul style="list-style-type: none">▪ Overall perspective of IT&E program activities, resources and outputs.
5. Training and Education Best Practices
<ul style="list-style-type: none">▪ Other Military organizations: Australia, U.K., and the U.S.▪ Corporate/Public Sector.



ANNEX E—IT&E PRODUCTION



ANNEX F—IT&E COMMITTEE STRUCTURE

COMMITTEE	ROLE	CHAIR
Defence Management Committee (DMC)	Senior resource management committee overseeing IT&E activities.	DM and CDS
Strategic HR Management Council (SHRMC)	Senior DND/CF consultative body exclusively concerned with HR.	ADM(HR-Mil) and ADM(HR-Civ)
Military HR Capability Board (MHRCB)	Provides strategic oversight of the Long-Term Capability Plan (developed to address critical gaps in the Canadian Forces' HR capacity beyond ADM(HR-Mil) Group's resources to resolve).	ADM(HR-Mil)
Military Human Resources Policy and Planning Committee (MHRPPC)	A consultative body that implements military HR guidance from the MHRCB as well as screening projects and initiatives for review by this same group.	DGMHRPP ²¹
Professional Development Council (PDC)	Provides oversight of the entire CF Professional Development system. An element of the governance structure of the CDA.	ADM(HR-Mil)
Education Advisory Board (EAB)	Provides advice on the place and value of education within the Professional Development system.	A distinguished Canadian in the field of education
IT&E Management Committee (IT&E MC)	Provides advice to senior management on IT&E issues, and manages the implementation, coordination and verification of CF IT&E activities.	DTEP

²¹ Director General Military Human Resource Policy and Planning.



ANNEX G—PERFORMANCE MEASUREMENT CHARACTERISTICS

As part of the work done by CRS to assess the current approach to measuring IT&E in the CF, a wide range of literature that examined the characteristics of strategic performance measurement systems was reviewed. The following criteria were frequently cited:

CHARACTERISTIC	CRITERIA
Clarity of purpose	It should be clear who will use the performance information, and how and why they require the information.
Focus	Performance information should be focused on the priorities of the organization – its core objectives and service areas in need of improvement. This should be complemented by information on day-to-day operations. Part of this is having an agreed definition of what constitutes successful achievement of the core objectives.
Alignment	The performance measurement system should be aligned with the objective setting and performance review processes of the organization. There should be links between the performance indicators used by managers for operational purposes, and the indicators used to monitor corporate performance.
Balance	The overall set of indicators should give a balanced picture of the organization's performance, reflecting the main aspects, including outcomes and the users' perspective.
Regular refinement	The performance indicators should be kept up to date to meet changing circumstances. A balance should be struck between having consistent information to monitor changes in performance over time, taking advantage of new or improved data, and reflecting current priorities.
Robustness	The indicators used should be sufficiently robust and intelligible for their intended use. Independent scrutiny, whether internal or external, helps to ensure that the systems for producing their information are sound. Careful, detailed definition is essential.
Actionable	A question that should be applied to every indicator is "What action could the recipient of the information take on the basis of this information?" Indicators where the answer to this question is that the recipient would never take action on the basis of the information should not be used for measuring performance.
Targets	Performance measurement can only quantify the performance of an organization; setting targets can challenge the organization to do better. Targets should be realistic.
Owners identified and accountable	Staff should ideally own their indicators, particularly where operational and local measures are concerned, and should be able to understand and accept the validity of corporate indicators and targets. Not all indicators can necessarily have a single owner, and it may be necessary for all concerned to accept "joint and several" responsibility.

Principal Sources: Audit Commission, *On Target: The Practice of Performance Indicators*, London, UK, 2000; Audit Commission, *Aiming to Improve: The Principles of Performance Measurement*, London, UK, 2000; Auditor General of Canada, 1997 Report: *Chapter 22 Crown Corporations: Making Performance Measurement Work*, and Chapter 5 *Reporting Information in the Expenditure Management System*, Ottawa, 1997; National Performance Review, *Serving the American Public: Best Practices in Performance Measurement*, Washington DC, 1997.



ANNEX H—LIST OF ACRONYMS

3 ASG	3 Area Support Group	CFPDS	Canadian Forces Professional Development System
1 CAD	1 Canadian Air Division	CFPM	Canadian Forces Provost Marshal
ADGA	ADGA Group Consultants Inc.	CFRETS	Canadian Forces Recruiting Education and Training System
Adm	Admiral	CFRG	Canadian Forces Recruiting Group
ADM(Fin CS)	Assistant Deputy Minister (Finance and Corporate Services)	CFSTG	Canadian Forces Support Training Group
ADM(HR-Civ)	Assistant Deputy Minister (Human Resources – Civilian)	CLS	Chief of the Land Staff
ADM(HR-Mil)	Assistant Deputy Minister (Human Resources – Military)	CMS	Chief of the Maritime Staff
ADM(Per)	Assistant Deputy Minister (Personnel)	CO	Commanding Officer
AMOR	Annual Military Occupation Review	Col	Colonel
AS	Able Seaman	Cpl	Corporal
ASD	Alternative Service Delivery	CPO1	Chief Petty Officer 1 st class
ASLt	Acting Sub-Lieutenant	CPO2	Chief Petty Officer 2 nd class
ATC	Area Training Command	CRS	Chief Review Services
CAC	Consulting Audit Canada	CTC	Combat Training Centre
Capt	Captain	CWO	Chief Warrant Officer
Capt(N)	Captain (Navy)	DA	Departmental Authority
CAS	Chief of the Air Staff	DAOD	Defence Administrative Orders and Directives
CDA	Canadian Defence Academy	DEO	Direct Entry Officer
Cdr	Commander	DGMHRPP	Director General Military Human Resource Policy and Planning
CDS	Chief of the Defence Staff	DLN	Defence Learning Network
CF	Canadian Forces	DMC	Defence Management Committee
CFB	Canadian Forces Base	DND	Department of National Defence
CFC	Canadian Forces College	DP	Development Period
CFED	Canadian Forces Equivalencies Database	DPM	Defence Personnel, Operations and Maintenance Model
CFITES	Canadian Forces Individual Training and Education System	DTEP	Director Training and Education Policy
CFITS	Canadian Forces Individual Training System	EAB	Education Advisory Board
CFLRS	Canadian Forces Leadership and Recruit School	FIS	Financial Information System
CFMEP	Canadian Forces Military Equivalencies Program	FMAS	Financial Managerial Accounting System
CFMG	Canadian Forces Medical Group	FPG	Functional Planning Guidance
		FRP	Force Reduction Program
		FY	Fiscal Year
		GAO	General Accounting Office (U.S.)



ANNEX H

Gen	General	MWO	Master Warrant Officer
HR	Human Resources	NCM	Non-commissioned Member
HR 2020	Human Resources Strategy 2020	NCMGS	Non-commissioned Member General Specification
HRMS	Human Resource Management System	NDHQ	National Defence Headquarters
IM	Information Management	OAG	Office of the Auditor General
IT&E	Individual Training and Education	OGS	Officer General Specification
IT&E MC	Individual Training and Education Management Committee	OPI	Office of Primary Interest
ITMIS	Individual Training Management Information System	OPME	Officer Professional Military Education
L0	Level Zero	OS	Ordinary Seaman
L0 PMF	Level Zero Performance Measurement Framework	PAT	Person Awaiting Training
L1	Level One	PD	Professional Development
L2	Level Two	PDC	Professional Development Council
L3	Level Three	PEP	Personal Enhancement Program
LCol	Lieutenant-Colonel	PLA	Prior learning assessment
LFCI	Land Force Command Inspector	PLQ	Primary Leadership Qualification
LFDTS	Land Force Doctrine and Training System	PO1	Petty Officer 1st class
LS	Leading Seaman	PO2	Petty Officer 2nd class
Lt	Lieutenant	PoC	Proof of Concept
LTCP	Long-term Capability Plan	Pte	Private
MA	Managing Authority	PYs	Person years
Maj	Major	QS	Qualification Standard
MBA	Masters in Business Administration	RA	Requirement Authority
MCpl	Master Corporal	ROTP	Regular Officer Training Plan
MCTAP	Military Civilian Training Accreditation Program	RMC	Royal Military College
MHRCB	Military Human Resources Capability Board	Sgt	Sergeant
MHRPPC	Military Human Resources Policy and Planning Committee	SHRMC	Strategic Human Resource Management Council
MITE	Military Individual Training and Education	SHRPG	Strategic Human Resource Planning Guidance
MOC	Military Occupation	SLC	Senior Leadership Course
MOS	Military Occupational Structure	TP	Training Plan
MS	Master Seaman	U.K.	United Kingdom
		U.S.	United States
		VCDS	Vice Chief of the Defence Staff
		WO	Warrant Officer

