

National Defence

Performance Report

For the period ending March 31, 1999

Canadä

Improved Reporting to Parliament Pilot Document

The Estimates of the Government of Canada are structured in several parts. Beginning with an overview of total government spending in Part I, the documents become increasingly more specific. Part II outlines spending according to departments, agencies and programs and contains the proposed wording of the conditions governing spending which Parliament will be asked to approve.

The *Report on Plans and Priorities* provides additional detail on each department and its programs primarily in terms of more strategically oriented planning and results information with a focus on outcomes.

The *Departmental Performance Report* provides a focus on results-based accountability by reporting on accomplishments achieved against the performance expectations and results commitments as set out in the spring *Report on Plans and Priorities*.

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Foreword

On April 24, 1997, the House of Commons passed a motion dividing on a pilot basis what was known as the annual *Part III of the Estimates* document for each department or agency into two documents, a *Report on Plans and Priorities* and a *Departmental Performance Report*.

This initiative is intended to fulfil the government's commitments to improve the expenditure management information provided to Parliament. This involves sharpening the focus on results, increasing the transparency of information and modernizing its preparation.

This year, the Fall Performance Package is comprised of 82 Departmental Performance Reports and the government's report *Managing for Results* - Volume 1 and 2.

This *Departmental Performance Report*, covering the period ending March 31, 1999, provides a focus on results-based accountability by reporting on accomplishments achieved against the performance expectations and results commitments as set out in the department's pilot *Report on Plans and Priorities* for 1998-99. The key result commitments for all departments and agencies are also included in Volume 2 of *Managing for Results*.

Results-based management emphasizes specifying expected program results, developing meaningful indicators to demonstrate performance, perfecting the capacity to generate information and reporting on achievements in a balanced manner. Accounting and managing for results involve sustained work across government.

The government continues to refine and develop both managing for and reporting of results. The refinement comes from acquired experience as users make their information needs more precisely known. The performance reports and their use will continue to be monitored to make sure that they respond to Parliament's ongoing and evolving needs.

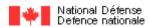
As part of its ongoing efforts to streamline reporting requirements, the Treasury Board of Canada Secretariat has requested that Agriculture and Agri-Food Canada, Human Resources Development Canada, Indian and Northern Affairs Canada and Canadian Polar Commission, National Defence and Natural Resources Canada explore alternative reporting structures to this year's performance reports. It has, therefore, exempted these departments from having to follow the guidelines for the preparation of this report.

This report is accessible electronically from the Treasury Board Secretariat Internet site: http://www.tbs-sct.gc.ca/tb/key.html

Comments or questions can be directed to the TBS Internet site or to:

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Departmental Performance Report for the Period Ending 31 March 1999

MINISTER'S MESSAGE



I am pleased to present the 1998-1999 performance report for the Department of National Defence and the Canadian Forces.

As in past years, I am taking this opportunity to highlight some of the achievements that demonstrate the dedication and professionalism of the defence team. I also want to underscore the contribution that their work has made to the safety and security of Canada, and to the peace and stability of the global community. The Department and the Canadian Forces perform functions that underpin our sovereignty, quality of life and prosperity as a nation. I am proud to report that their work has met and often exceeded expectations.

The high operational tempo from the period from April 1998 to March 1999 was precedent setting. In the fall of 1998, the Canadian Forces deployed the new Disaster Assistance Response Team (DART) to Honduras. The team provided medical care, drinking water and engineering services to thousands of people left devastated by Hurricane Mitch. DART's success in Honduras demonstrated that this highly capable group of men and women stands ready to respond to international humanitarian assistance and disaster-relief operations. The Team's mobility and expertise were called on again in the aftermath of severe earthquakes in Turkey.

The conflict in Kosovo proved that the Canadian Forces can make a significant military contribution as a member of NATO. Months before NATO's air campaign started, Canadian Forces personnel were involved in diplomatic and observer missions aimed at averting a full-scale humanitarian crisis. Our CF-18s were deployed to Aviano and performed their mission alongside our most capable allies with skill and courage. Canada flew a significant number of missions (678 combat sorties) and achieved a commendable level of success. This and our subsequent deployment of ground and naval forces clearly demonstrate our commitment to the human security agenda, from diplomacy to peace building to military intervention.

In addition to supporting NATO operations in Bosnia and United Nations peacekeeping in the Central African Republic and elsewhere, numerous operations were undertaken at home – fighting forest fires in Alberta and British Columbia, spearheading search and recovery operations after the tragic crash of Swissair Flight 111 near Peggy's Cove, Nova Scotia, and responding to more than 7,000 search and rescue calls across Canada.

In 1998-1999, many of the activities of the Department and the Canadian Forces were once again geared to addressing four important priorities. The first priority was, and continues to be, the quality of life of our Forces personnel. I was proud of the contribution that departmental personnel and members of the Forces made in providing a comprehensive program that will improve the way we treat our Forces members and their families. I was prouder still to be part of a Government that showed its commitment by increasing the defence budget for the first time in nearly a decade, including an additional \$175 million for quality-of-life initiatives.

Second, we continued to make progress in ensuring that our military force has the equipment needed to do the job. Having just announced the purchase of a new fleet of search and rescue helicopters and the four *Victoria*-class submarines, we entered 1998-1999 with a number of smaller – and yet significant – items on our procurement agenda. For example, we announced the beginning of the Incremental Modernization Project for both the CF-18 and Aurora aircraft fleets, and we let contracts for the environmental clothing and other components of the Clothe the Soldier Project.

Third, a number of initiatives improved the way we communicated with our own people and with the public. In October 1998, I tabled in the House of Commons the Chief of the Defence Staff's first-ever *Annual Report on the State of the Canadian Forces*. Since then the second report, *Into the New Millennium*, has also been tabled. These reports, coupled with our updated Internet site, are part of the important tools we are introducing for communicating with all members of the Forces, as well as for enhancing institutional transparency and openness. Additional improvements were made to the way we communicate with the Canadian public within our progressive new public affairs policy and improved availability to the media.

Finally, I have continued to emphasize the importance of organizational change and institutional reform. I appointed our first Ombudsman, Mr. André Marin, to provide information, advice and guidance to military or civilian personnel who are in need of help or who believe that they have been treated improperly. In November 1998, I appointed the Advisory Board on Canadian Forces Gender Integration and Employment Equity to advise me on issues that are vital to maintaining a capable and sustainable military force and the relevance of the Forces in Canadian society.

For all of these accomplishments and for all the achievements that you will read about in this report, credit must be given to the men and women, Regular Forces and Reserves, military and civilian, of this vital national institution. Daily they encounter and overcome significant challenges – often at great personal risk to themselves – in the name of all Canadians.

Tragically, the price they pay for their success is often too high. It is with great regret that I recall the loss of Canadian Forces personnel who paid the ultimate sacrifice. Two soldiers died in accidents while serving in Bosnia. Six aircrew lost their lives when their helicopter crashed in Marsoui, Quebec. And a young Snowbird pilot died while practising manoeuvres that he intended to showcase with his team in airshows across the country. To their families, I extend once again a debt of gratitude on behalf

Department of National Defence - Performance Report for the Period Ending 31 March 1999

of all Canadians. To their colleagues who continue to serve, I commend your professionalism, skill, dedication and courage.

Looking back over the past year, and looking forward to the millennium, I can say with confidence that the Department of National Defence and the Canadian Forces are working hard to ensure they can meet the challenges of the twenty-first century.

I sincerely hope that this report provides you with a greater appreciation of this institution, the contribution that it makes to all Canadians and the issues it is facing.

The Honourable Art Eggleton, P.C., M.P. Minister of National Defence

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PART 1 – SERVICE TO CANADIANS: DEPARTMENTAL OVERVIEW

The Department of National Defence and the Canadian Forces are among Canada's most visible national institutions, maintaining a presence in more than 3,000 communities across the country and 45 countries around the world. Our people reflect Canada's cultural, linguistic and regional diversity.

We perform core functions of government by defending Canadian security and sovereignty, helping civil authorities to maintain law and order, contributing to Canada's relations with the United States, promoting Canadian interests and values on the world stage, and supporting the achievement of Canada's foreign policy objectives.

We also help to ensure the safety, security and well-being of Canadians. In co-operation with other departments and agencies, as well as provinces and municipalities, the Canadian Forces spearhead national search and rescue efforts, and provide support for counterterrorism, drug interdiction, environmental protection, and Canadian fisheries. In addition, Defence contributes to achieving public priorities in areas of knowledge and innovation, research and development, youth training and employment, and national unity.



Over the past year, we have delivered on our commitments to the people of Canada and, in many cases – as you will see in this report – we have exceeded expectations.

The Defence Mission

The defence mission is to defend Canada and Canadian interests and values while contributing to international peace and security.

In delivering this mission, we are responsible for:

- conducting surveillance and control of Canada's territory, airspace, and maritime areas of jurisdiction
- responding to requests from provincial authorities under the Aid of the Civil Power sections of the National Defence Act
- participating in bilateral and multilateral operations with Canada's allies
- · providing emergency humanitarian relief
- providing strategic defence and security advice to the Government of Canada
- assisting other government departments and other levels of government in achieving national goals, and
- providing support to broad federal government programs.

The mandate of the Department of National Defence flows from the *National Defence Act* (Revised Statutes of Canada, 1985, Chapter N-5). Under this Act, the Minister of National Defence is responsible for the management and direction of the Canadian Forces and for all matters relating to national defence. As well, the Minister of National Defence is designated as the Minister Responsible for Emergency Preparedness under the *Emergency Preparedness Act.* Finally, the Minister has also been designated the lead Minister for Search and Rescue with authority, responsibility and accountability for the co-ordination of the National Search and Rescue Program.

Contributions to National Priorities

The primary roles of the Department of National Defence and Canadian Forces are to:

- to defend Canada, maintain Canadian sovereignty, and help protect the safety, security and well-being of Canadians
- to help defend, monitor and control North American aerospace in co-operation with the United States, and
- to contribute to international peace and security in co-operation with our principal allies.

In addition to being responsible for Canada's key defence requirements, the Department and the Canadian Forces also contribute to innovation, employment and economic growth. It is estimated that the Canadian defence industry generates about \$5.5 billion in sales and \$1.8 billion in exports, and employs about 50,000 people across Canada. Also of note, our research and development operations have produced world-class innovations – many with commercial applications. These are significant contributions to the well-being of Canada.

Institutional Priorities

To succeed in the twenty-first century, and to ensure we have the flexibility required to adapt to continuing changes in technology and the international environment, we must become increasingly innovative. We also must be more strategically focused and proactive. In particular, within the limits of existing policy, the Department and the Canadian Forces must adhere to five strategic imperatives:

- set and maintain a coherent strategy for the future by identifying priorities, key long-term strategic objectives, and shorter-term goals and targets
- nurture pride in the institution by meeting the highest public standards in terms of ethos, values and professionalism, and by providing its members and employees with a compelling vision, a competitive quality of life and rewarding careers

- maximize strategic partnerships through the most effective collaboration with other government departments and by strengthening links to like-minded nations
- maintain a relevant force structure that is interoperable at the component and contingent headquarters level with Canada's allies, globally deployable and affordable over time, and
- improve resource stewardship by striking a careful balance between the investments needed to maintain current operations and the investments in people, infrastructure and equipment needed to prepare for emerging risks and future challenges.

To succeed in the long term, Canadian Defence must adhere to these five imperatives.

Overview of the Report

Part Two focuses on the performance of the Department of National Defence and the Canadian Forces in key areas, including operations and missions undertaken, support of government programs, and change and renewal in both the organization and our people.

Part Three discusses the current challenges and opportunities ahead, including Year 2000 (Y2K) preparations, the evolving revolution in military affairs, new emerging threats, sustainability of operations and quality of life. We outline our approach to meeting these challenges and capitalizing on new opportunities to strengthen the Defence program.

Part Four provides supplementary and supporting information.

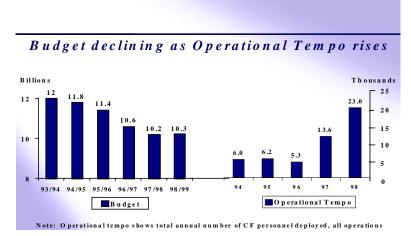
Chart of Key Results Commitments

To provide Canadians with:	To be demonstrated by:	Achievements reported on:
Multi-purpose, combat- capable maritime, land	the capability to provide strategic defence and security information to the government	Page 15
and air forces capable of defending Canada and Canadian interests and values while contributing to international peace and security	the capability to monitor and control activity within Canada's territory, airspace and maritime areas of jurisdiction	Page 6
	the capability to assist in mounting, at all times, an immediate and effective response to terrorist incidents	Page 6
	the conduct of domestic operations involving assistance to civil authorities and to individuals, including assistance to provincial authorities in law enforcement operations up to and including Aid of the Civil Power under the <i>National Defence Act</i> , Part XI	Page 11
	the capabilities to participate in bilateral and multilateral operational missions in Canada and around the world	Page 12
	the ability to operate effectively at sea, on land and in the air with the military forces of the United States in defending North America through a variety of arrangements such as NORAD	Page 12
	participation in a wide range of existing bilateral defence agreements between Canada and the United States, including the Test and Evaluation Program and the Defence Production and Development Sharing Arrangements	Page 13
	deployment on multilateral operations anywhere in the world under United Nations auspices, or in defence of a NATO member state, contingency forces of up to a maritime task group, a brigade group and an infantry battalion group, a wing of fighter aircraft and a squadron of tactical transport aircraft	Page 12
	 maintenance of a full slate of peacetime commitments to NATO bilateral and multilateral contacts and exchanges with selected partners in Central and Eastern Europe, the Asia-Pacific Region, Latin America and Africa 	Page 12 Page 12
	the verification of existing arms control agreements, including the Conventional Forces in Europe Treaty, and participating in the development of future accords	Page 12
	 assisting other government departments and other levels of government in achieving national goals 	Page 9
	 assisting other federal government departments (such as counter- drug operations in co-operation with the Royal Canadian Mounted Police and fisheries patrols in co-operation with Fisheries and Oceans Canada) 	Page 9
	the capability to assist the Department of Foreign Affairs and International Trade in the protection and evacuation of Canadians from areas threatened by conflict	Page 9
	 support to broad government programs 	Page 15
	maximizing defence capabilities through the efficient and effective use of resources	Page 15
	safeguarding Canadian lives and reducing damage to properties by ensuring an appropriate level of civil emergency preparedness throughout Canada	Page 7
A civil emergency preparedness capability, humanitarian assistance	the provision of assistance in the event of civil disasters (such as floods, forest fires, hurricanes, snow and ice storms) and humanitarian assistance (such as searches for missing persons, diver assistance, and search and rescue)	Page 7
and disaster relief	the provision of vital humanitarian assistance at home and abroad with the Canadian Forces Disaster Assistance Response Team	Page 7

PART 2 – DEPARTMENTAL PERFORMANCE

Over the past few years, the Department of National Defence and the Canadian Forces have faced a wide range of challenges.

We have witnessed the end of the Cold War and the collapse of the Berlin Wall. We have seen the defence budget reduced, and the Canadian Forces playing a larger role in the evolving international security environment.



We have managed significant reductions in the Defence budget as our contribution to the government's overall efforts to reduce the national debt. But we have done so at a time when the operational tempo has increased. We have faced unforeseen and sustained levels of high operational demand that have stretched our people, equipment and infrastructure to the limit.

We are focusing on maintaining our capabilities but not to the detriment of our people. This past year saw us taking positive steps to improve their quality of life. People issues are a priority for any organization and are of particular concern to the Canadian Forces.

As the world changes, we must change, adapt and improve. Adjustments to constant changes in technology are a challenge to all. The so-called revolution in military affairs is fundamentally altering the character and conduct of military operations, and we must adapt to this new reality. We must also identify and understand the implications of emerging threats to areas of security such as information operations.

The Department and the Canadian Forces are also facing change on a different front – internally. We are in the process of implementing the most sweeping sets of reforms ever introduced to a federal institution. These reforms affect all of our activities and people in some way.

In this environment of massive change, we have met and often exceeded expectations. The following pages give an overview of our achievements.



Delivering on Our Primary Mandate – Operations and Missions

Operationally, 1998-1999 was a demanding year. The Canadian Forces responded to an unprecedented number of crises both at home and abroad. From 1948 to 1989, the Canadian Forces have been deployed on 25 missions. Since 1989, they have been deployed on 65 missions. In 1998-1999, Canadian Forces members participated in peacekeeping missions throughout the world, in areas including Bosnia-Herzegovina, Kosovo, Haiti, the Golan Heights, Cyprus, Iraq, Cambodia, Croatia, the Sinai, the Former Yugoslav Republic of Macedonia, the Central African Republic and the Arabian Gulf.



Under the auspices of the United Nations, NORAD and NATO, close to 2,000 Canadian Forces members were deployed in 18 missions around the world, of which about 10% to 15% were members of the Primary Reserve. A further 2,000 sailors were deployed on the high seas. All told, the men and women of the Canadian Forces worked in 45 countries.

Protecting Canadians and Canadian Sovereignty

Asserting sovereignty is a fundamental activity of any state. Within its area of jurisdiction, Canada must ensure that Canadian law is respected and enforced. This means an ability to monitor and, if necessary, control all activities within the country's territory, airspace and maritime areas of jurisdiction – including the 200-nautical-mile Economic Exclusion Zone. In addition, we must maintain the ability to mount an immediate, effective and appropriate armed response for the resolution of incidents that affect, or have the potential to affect, national interests.

Defence Objective

To conduct surveillance and control of Canada's territory, airspace and maritime areas of jurisdiction.

Results to be achieved

Effective monitoring of Canadian territory and responding effectively to incursions.

Responses to terrorist incidents in a way that minimizes suffering and loss of life.

Throughout the year, 24 hours a day, seven days a week, the Canadian Forces maintain vigilant surveillance of our territory and sovereignty.

Aurora aircraft spend much of their time conducting maritime and air surveillance off Canada's coasts, scouring up to 400,000 square kilometres of open ocean on a single

flight. The aircraft can track every ship within a circle of ocean 240 kilometres in diameter. This capability has been used effectively during recent incidents of illegal migrant smuggling off the coast of British Columbia.

Working in conjunction with the Navy, the Air Force assisted in monitoring and exercising control over Canada's maritime territory by carrying out routine maritime sovereignty surveillance and coastal patrols. The patrols accounted for 879 hours of Aurora and 650 hours of Challenger flying time. The Aurora aircraft also flew more than 125 hours in supporting patrols of Canada's northern regions.

The Canadian Forces also conducted a number of sovereignty exercises in the Northwest Territories. These provided an excellent opportunity for the Regular Force and Reserve Force to work with the Canadian Rangers in demonstrating land-based capabilities.

Safeguarding Communities, Safeguarding Lives

The Minister of National Defence is also the Minister Responsible for Emergency Preparedness Canada and the lead Minister for the National Search and Rescue Program. As such, the Canadian Forces are able and prepared to react quickly and effectively in response to events requiring disaster relief.

The Canadian Forces make a valuable contribution to the safety and security of Canadians and Canadian communities. When natural disasters strike – from floods and storms to forest fires – the Canadian Forces have been there, giving help wherever it is needed across the country.

Defence Objective

To provide emergency and humanitarian relief.

Results to be achieved

Effective response in providing disaster relief and humanitarian assistance.

Fostering better preparedness to ensure rapid and co-ordinated responses to emergencies.

Safeguarding human life through searchand-rescue services for persons lost or in distress.

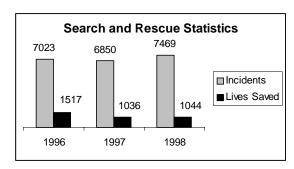
In August 1998, at the request of the Province of British Columbia, hundreds of Canadian Forces members joined civilian firefighters to battle blazing mountain fires in the Lillooet and Salmon Arm areas. The troops were essential in establishing fire perimeters. Fires that threatened homes in the Fountain Valley and on Fountain Indian Reserve were stopped as a result of Canadian Forces actions, and the homes were saved. The Fire Control Manager of the British Columbia Forest Service said that "the military displayed the utmost professionalism and co-operation when dealing with the local community. As a Canadian citizen, I thank the Canadian Forces for developing such fine troops".

In 1998-1999, our materiel and logistics personnel, with the Air Force and Navy, coordinated the delivery of 726,000 kg of humanitarian aid. This represents a 159%

increase from the last reporting period, and an almost 380% increase in the amount of aid delivered in 1997.

The Department and the Canadian Forces also spearhead search and rescue response and co-ordination as part of the National Search and Rescue Program. The objectives of the program are to save lives through the detection, location and rescue of persons lost or in distress, and to promote the prevention or mitigation of search and rescue events (see Annex E for more details).

The Canadian Forces responded to a record number of incidents this past year. In cooperation with the Canadian Coast Guard, the Canadian Forces provided support to and coordinated 7,469 search-and-rescue operations that saved the lives of 1,044 people. The operations involved about 700 Canadian Forces personnel, and represent an increase of 719 operations – close to 10% – over those



conducted in 1997. We cannot predict the number of incidents because they depend on numerous variables; however, we can and do maintain the ability to respond if the need arises. The purchase of 15 new search-and-rescue helicopters in the past year will improve the working conditions of the search-and-rescue teams and increase their ability to provide assistance.

Canadian Forces personnel operate in harsh and demanding circumstances, and they give selfless service. Wherever they are located, in Canada or in other countries around the world, they are ready and willing to help when called upon – sometimes in the face of overwhelming circumstances. The following profile describes one of those perilous circumstances, to which two members of the Forces responded with conspicuous courage.



Star of Courage

Sgt Kenneth James Power, SC, CD MCpl Gregory Allan Smit, SC

On September 24, 1996, search-and-rescue technicians Sgt Power and MCpl Smit rescued four sailors from a sailboat in danger of capsizing in heavy seas in the Atlantic Ocean, off Sable Island, Nova Scotia. The vessel's wildly gyrating mast made a standard hoist recovery impossible, so MCpl Smit and Sgt Power were lowered into the raging sea from a hovering

rescue helicopter and battled six-metre waves to swim to the vessel. Sgt Power evacuated the first two sailors, one at a time, by hooking them to his harness and leaping into the ocean. As they were lifted to safety, they were dragged underwater and slammed several times against the hull. Completely exhausted and having swallowed a large amount of water, Sgt Power was unable to attempt another rescue. The line was then lowered to MCpl Smit who managed to rescue the third sailor. As he was dropped near the vessel for pick-up of the last sailor, a large wave separated them. MCpl Smit's attempts to hand-signal information to the helicopter crew failed and he was hoisted up without the victim. Although weakened, MCpl Smit mustered enough strength to be lowered again to the man who had drifted away from his boat, and the final hoist was successfully completed.

In Memoriam

Capt Peter Musselman
Capt Darrin Vandenbilche
Sgt David Gaetz
Sgt Jean Roy
MCpl Darrell Cronin
MCpl Glen Sinclair

That others may live

Canada's Search and Rescue Program is one of the most effective and successful in the world – a remarkable achievement considering our country's vast size, challenging geography and inhospitable climate.

But this service sometimes comes with a human price. After a search-and-rescue operation on 2 October 1998, a 413 Squadron Labrador helicopter crashed near Marsoui, Quebec, en route home to Greenwood, Nova Scotia. Six crew members were killed. We extend our heartfelt condolences to their families, colleagues and friends.

Supporting Other Government Departments

The Department of National Defence and the Canadian Forces have a key role to play in supporting other government departments and helping to achieve broad national objectives. We provide routine assistance to the RCMP, Environment Canada, the Department of Fisheries and Oceans and others, in areas such as fisheries patrols, drug interdiction and environmental surveillance. We are prepared to aid the Department of Foreign Affairs and International Trade in the permissive evacuation of Canadians from

areas where there is imminent threat of conflict.

Defence Objective

To assist other government departments and other levels of government in achieving national goals.

Results to be achieved

National objectives attained in co-operation with other government departments.

Responses to requests from the Department of Foreign Affairs and International Trade for the protection and evacuation of Canadians, in a way appropriate to the particular situation, to ensure their safe recovery.

The Canadian Forces performed admirably this past year in supporting other government departments by providing important services to Canadians.



In the past year, we continued to foster safe Canadian communities. One example is the support we provided in the area of drug surveillance and interdiction. In an operation off the coast of British Columbia, in October and November 1998, Aurora aircraft from 19 Wing's 407 Maritime Patrol Squadron and HMCS *Huron* provided surveillance

for the RCMP. The aircrew and ship's company tracked suspected drug smuggling vessels 24 hours a day, for a period of almost two weeks. This represented nearly 300 hours of flying time for the aircrews. The operation resulted in the interception of more than 14 tons of hashish – the largest seizure of its kind ever made on the West Coast. The mothership, two offloader ships and several other vehicles were seized, and 12

individuals were arrested and charged. The confiscated hashish had a street value of more than \$128 million.

In 1998-1999, helicopters and crews also supported the National Marijuana Eradication Program, and contributed very significantly to the positive results achieved by RCMP divisions across the country. Our assistance helped to eradicate over 32,000 plants, with a street value in excess of \$82 million.

During the past year, Aurora aircraft played an important role in the detection, tracking and control of illegal immigration. In addition to protecting Canada's coasts, our Navy and Air Force help to defend the economic livelihood of Canadians engaged in the fishing industry. Last year, for example, we flew over 800 hours to support high seas drift net and fisheries patrols in the Davis Strait and the Grand Banks. In total we provided nearly 1,000 hours of Aurora flying time to support activities conducted by the Department of Fisheries and Oceans.



On 2 September 1998, the Canadian Forces responded to the tragic loss of Swissair Flight 111, just off Peggy's Cove, Nova Scotia. HMCS *Ville de Québec* and HMCS *Preserver*, already at sea off the coast of Nova Scotia, were the first vessels to react to the disaster call. They were quickly joined by a number of ships and maritime air assets in humanitarian relief and salvage operations. For material recovery operations, the Navy deployed four ship-borne remotely operated vehicles to search and survey the debris field. The Canadian Forces were actively engaged in the operation until 15 December 1998.

The Commander of Maritime Command Atlantic, RAdm D.E. Miller, was designated as the Joint Task Force Commander. At the peak of operations, he commanded more than 2,000 personnel involved in boat patrols, beach searches, diving searches and recovery.

We also provided humanitarian assistance and support to the Nova Scotia Coroner and the Transportation Safety Board.

The Canadian Forces Dental Services made an invaluable contribution to the operation by providing forensic dental services to help identify those lost in the tragedy. Dr J.C. Butt, Nova Scotia Chief Medical Examiner, expressed his gratitude in saying that "all individuals on this dental team performed superbly in a

"OP Persistence is a tribute to the cooperative spirit of many departments and agencies and their thousands of personnel, to say nothing of the many volunteers from the South Shore of Nova Scotia. The smoothness of standing up an organization like this, in such a short timeframe, belies its complexity". — RAdm D.E. Miller horrific environment, remained effective, efficient and highly successful throughout the operation, and bring great credit and honour to the Canadian Forces and Canada."

Assisting the Provinces and Territories

In addition to supporting federal government departments, the Canadian Forces provide assistance to the provincial and territorial governments should the need arise. The Attorney General of a province or territory may call on the Forces for aid when a riot or disturbance is beyond the powers of the civil authorities to suppress. The Chief of the Defence Staff determines the nature of the

Defence Objective

To respond to requests for Aid of the Civil Power.

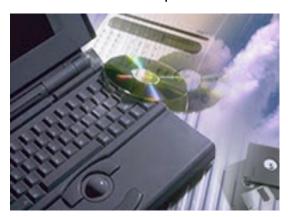
Results to be achieved

Aid is provided to the civil power when requested.

response; the Canadian Forces act only as a military body and do not replace the civil power – they assist the latter in maintaining law and order.

We were not called upon to provide aid to a civil power in 1998-99. Nevertheless, we are working behind the scenes in co-operation with the provinces and territories through the National Contingency Planning Group in leading contingency planning for the Year 2000 (Y2K) transition.

We are dealing with the challenges of the so-called millennium bug and the Y2K transition on three separate fronts.



The first is ensuring that critical systems and equipment in our inventory are compliant before 2000 – or that adequate workarounds are in place to avoid any problems. Because of the size of this task, we have secured a loan from a special Treasury Board fund that assists federal departments and agencies in addressing internal Y2K compliance programs. At present, an estimated cost of \$350 million is associated with internal compliance programs.

The second front is developing contingency plans across the federal government to address Y2K problems. Last Fall the Department established a new unit, the National Contingency Planning Group, to co-ordinate all federal activities and all activities of Emergency Preparedness Canada in dealing with Y2K problems. For more information, visit the Web site <www.ncpg.gc.ca>.

The third and possibly most important front is preparing the Canadian Forces to help civil authorities. A military contingency planning effort, *Operation ABACUS*, is designed to ensure that the Canadian Forces, if called upon, will have the optimum capability to respond to requests for assistance. As we have seen over the past few years, the

Canadian Forces are like a national insurance policy in unforeseen events – they provide invaluable service to all Canadians when disaster strikes home.

Contributing to International Peace and Security

The Canadian Forces uphold a proud heritage of service abroad. Canadians are internationalists by nature. Co-operating on multilateral security is a Canadian tradition; it is also the expression of Canadian values in the international sphere. Canada's experience underscores the need to develop and foster international institutions that can address security and stability – and that can respond effectively to aggression should other measures fail.

In 1998-1999, the Canadian Forces continued to sustain a high operational tempo.

The Canadian Forces participate in a number of multilateral operations around the world. These operations could be conducted with other United Nations member nations,

Defence Objective

To participate in bilateral and multilateral operations.

Results to be achieved

The capability to participate in multilateral operations anywhere in the world, under United Nations auspices, in the defence of a NATO member state or in a coalition of other like-minded nations.

Contributions to the provision of aerospace warning and control for North America, and the collection, processing and dissemination of missile warning information through NORAD.

Effective interoperability with US forces.

NATO member states or other like-minded nations. Potential operations range from humanitarian assistance, peacekeeping, peace enforcement and collective defence, to measures for improving stability and building confidence, such as arms control and verification measures.



During the past year, the Canadian Forces played an active role on the international scene. In the Balkans, the humanitarian situation in Kosovo deteriorated significantly. Canadian Forces personnel were deployed and CF-18 aircraft conducted air-to-air and air-to-ground missions and battlefield air interdiction.

Last Fall, the Canadian Forces contingent with the NATO Stabilization Force in Bosnia was bolstered by the addition of a detachment of Griffon helicopters

and related Air Force personnel. In Africa, a contingent of some 50 Canadian Forces personnel was dispatched to provide key communications infrastructure for the United Nations *Operation MINURCA* in the Central African Republic.

Under the auspices of the United Nations, NORAD and NATO, approximately 2,000 Canadian Forces members served in 18 missions around the world. In addition, some 2,000 sailors were routinely deployed on the high seas.

In response to heightened tensions with Iraq, Hercules air-to-air refuelling aircraft and the frigate HMCS *Toronto* were assigned to the Persian Gulf. HMCS *Toronto* was

diverted from its tasking with the Standing Naval Force Atlantic to join the United States-led coalition, in response to Iraq's non-compliance with United Nations Security Council resolutions. The HMCS *Toronto* was replaced in the Persian Gulf by the frigate HMCS *Ottawa*. The ship's company of HMCS *Ottawa* was recognized for outstanding work under challenging and difficult environmental conditions. They made over 100 hailing calls to vessels travelling the waters of the Persian Gulf,



and boarded 35 vessels to determine what cargo was being transported into and out of Iraq.

The past year also saw the Disaster Assistance Response Team being deployed for the first time, to help the Honduran people affected by the devastation caused by Hurricane Mitch. A detachment of Griffon helicopters accompanied the team and assisted in the delivery of humanitarian aid.

In 1998-1999, we mounted other smaller-scale humanitarian relief efforts worldwide. For example, in Italy Canadian Forces personnel assisted in the response to the devastation caused by major flooding and mudslides in the Sarno region.

Contributing to the Defence of North America

Canada derives a significant security dividend from its geographic proximity to and long-standing relationship with the world's only remaining superpower. That special relationship is evident in all aspects of contact – trade and commerce, transportation, culture, the environment and, to an extent few Canadians appreciate, security and defence. Canada and the United States share a common stake in global security and together have maintained a unique partnership to ensure the defence of North America.

Canada enjoys a privileged relationship with the United States, reflecting our close economic, political, cultural and geographic ties.

A wide range of bilateral arrangements, including formal government-to-government agreements, interdepartmental memoranda and service-to-service understandings, defines Canada-United States defence co-operation. These arrangements include joint planning and operations, combined exercises, reciprocal training programs, defence

production, logistics, communications, research and development and intelligence. Canadian government and industry representatives conduct more than 20,000 defence-

related visits each year to the United States. Over 600 Canadian Forces personnel are now serving on exchange postings in the United States, and 170 US service members are stationed in Canada.

The Canada-United States defence relationship and cooperation in industry and research and development has considerable commerical value. Sales into the US market produce \$1 billion in exports annually and generate 10,000 jobs for Canadians. Similarly, US defence exports to Canada total about \$1 billion.

Canada-United States defence co-operation provides highly valued stability in a volatile and turbulent world. It contributes to protecting and promoting Canadian values and international peace and security.



Canada continues to maintain aerospace surveillance, missile warning and air defence



capabilities. Participation in NORAD is one means by which Canada contributes to these capabilities. NORAD is the "eyes and ears" of our early warning and surveillance activities. In co-operation with US forces, constant and vigilant surveillance is maintained for aerospace warning and control for North America. Over the past year, a number of aircraft and missiles were tracked. When necessary, "unknown aircraft" were intercepted and identified by aircraft dedicated to NORAD.

NORAD FACTS

- Over 2.5 million aircraft were detected; the vast majority were immediately identified by flight plan correlation. Aircraft that were not immediately identified were designated "unknown" and required intervention of some type.
- The total number of unknowns was 736; 82 were suspected drug smugglers.
- Interceptor scrambles totalled 134; 46 proceeded to an actual intercept (others were recalled because the unknown was identified).

Support to Government

The Department and the Canadian Forces continue to be one of Canada's most vital and visible national institutions. We live, train and work in every province and territory of Canada.

Supporting National Priorities

The Canadian Forces make a broad and diverse range of contributions to the wellbeing of Canada and Canadians. We support national priorities such as youth employment and training, environmental stewardship, employment equity, innovation and official languages, to name only a few.

Youth Initiatives

Defence Objectives

To provide support to broad government programs.

To provide strategic defence and security advice and information to the Government.

To maximize defence capabilities through the efficient and effective use of resources.

Results to be achieved

Contributions to the strengthening of a united, informed and well-governed country through support to government priorities, legislation, policies, programs and initiatives.

Cost-effective support is provided to the Department of National Defence and the Canadian Forces, and departmental administration is maintained at a minimum.

from all parts of Canada to each other, and teaches responsibility, life skills and cooperation. Its aims are to develop good citizenship and leadership, promote physical fitness, and stimulate the interest of youth in the sea, land and air activities of the Canadian Forces. This past year saw a number of improvements to the program, including the establishment of the National Canadian Cadet Web site. This site has been in existence for only nine months and, with almost 500,000 hits, is already one of the most successful Web sites on the Defence Information Network.



The Cadet Program prompted the creation of the Junior Canadian Rangers, a structured program for close to 900 young participants in isolated Canadian communities. Junior Canadian Rangers patrols are located in the Yukon, Nunavut, the Northwest Territories, and northern Ontario and Quebec. The training fosters good citizenship, community responsibility, leadership, personal health and welfare, and selfesteem, thereby building a stronger, healthier community for all. As an indication of the popularity of the program, an additional 300 boys and girls joined the Junior Rangers this past year. We are proud to be involved in these federally sponsored programs that benefit Canadian youth.

Approximately 60,000 young Canadians participate every year in the Cadet Program, a federally sponsored national youth program. The Cadet Program introduces participants

Comptrollership

The Department is one of six pilot departments for the federal government's Comptrollership Modernization initiative that focuses on a more results-oriented, values

and ethics-based style of management. During the past year, we have been actively involved with this effort through our membership on the Modernization Task Force, the Comptrollership Council, and several interdepartmental working groups. The Defence Comptrollership Council has acted as a catalyst for change and improvements in support of modern comptrollership practices. We helped develop the Comptrollership Modernization Road Map and are leading the Leadership and Organization areas.



We have embarked on a multi-year project to develop an Integrated Defence Management System, which will better link our strategy to our outputs, and enhance our performance measurement abilities. The Modernization Task Force has accepted this project as a key initiative that may be assessed for use by other departments as part of their comptrollership modernization efforts. In this light, 1998-1999 has provided the strategic foundation from which the Department will plan and implement modern comptrollership.

Materiel Management

For the Department of National Defence and the Canadian Forces, it is vital that we have the right piece of equipment in the right hands at the right time. Lives rely on the dependability, endurance and timely maintenance of equipment.



In 1998-1999, we have started procurement in a number of important areas. One example is the lease to purchase of the *Victoria*-class submarines, from the United Kingdom Ministry of Defence. The contract was signed and will see the first delivery, *HMCS Victoria*, in early 2000. This will be followed with a phased delivery of the remaining three submarines.

We are now looking into a replacement for our maritime helicopter, the 36-year-old Sea King. The maritime helicopter participates in a broad range of roles. However, the ageing airframe and diminishing capability of its mission system make it increasingly difficult for the Sea King to perform these roles. If the aircraft is not replaced, we will face ever-increasing maintenance costs, a reduction in capability and availability, and an increase in flight safety issues. Eventually the aircraft will become unsupportable.



An important component of materiel management is supporting our fleets of ships, aircraft and land equipment. We demonstrated our efficiency and effectiveness by completing under budget the docking and maintenance periods for three *Halifax*-class frigates – with savings of \$1.4 million. We consolidated munitions research, development, testing and engineering functions, which have resulted in recurring savings of approximately \$2 million. And we realized over \$33 million for the Government's accounts from the sale and disposal of surplus equipment.

Despite these successes, materiel management is under pressure. Over the past year, demand for materiel increased as a result of the increased tempo of operations. The demand was not fully met because funds were not available. As a result, the holdings of many nationally managed items fell below minimum stock levels. On average, 12% of supply demands had to be referred for future procurement action; this places increasing pressures on demands for next year. Left unabated, the situation will increase the gap between legitimate supply requirements and the resources available to satisfy them. In such an environment it is difficult to strike the appropriate balance between day-to-day issues of sustaining service levels and longer-term issues of transforming to meet future challenges.

The Department and the Canadian Forces make an important contribution to the economic livelihood of Canadians.

Through our international and industry programs, we supported several Canadian companies in marketing their products to select countries. For example, the Canadian Marconi Company successfully signed a contract with the Republic of South Korea for the \$150 million sale of a radio system. The company expects this significant offshore contract to improve its opportunities for additional sales.

Through a trade mission to Norway, we conducted a small Team Canada-style tour that helped 11 Canadian companies in marketing their products to Scandinavian countries. A number of contracts were signed as a result. These are only small examples of our co-operation with Canada's business community in accessing the global economy and facilitating international trade.

Environmentally Sustainable Defence Activities



In keeping with the Government's vision of sustainable development, we are committed to improve the Department's environmental performance. Our first sustainable development strategy, *Environmentally Sustainable Defence Activities*, was published in December 1997 and is available on the Internet at http://www.dnd.ca/admie/dge/sds/sds1_e.htm.

We have made commitments to address major issues related to ecosystems, pollution prevention, hazardous materials, climate change, and cultural resources by achieving 22 measurable multi-year targets. The Department's action plan includes building our environmental performance capacity by applying three principles (stewardship, partnership and appropriate skills and knowledge), and by implementing a formal environmental management system.

During the past year, we began to implement the action plan, confirm individual responsibilities, provide functional guidance, develop a reporting protocol, target funding and compile results. Reporting units confirmed that they are using the three principles to build the capacity for better performance, and have provided information on the progress they have made on the 22 targets. Further work is required to identify baseline data and improve information management systems. In accordance with ISO 14 000 standards, documenting procedures for environmental management systems has begun at the departmental level and in most service lines. Efforts over the upcoming year focus on gaps in implementing and reporting, and on preparing the next sustainable development strategy to be tabled in Parliament in 2000.

Research and Development

For more than 50 years, the Department and the Canadian Forces have been a major source of research and development, innovation, and scientific study in Canada. We contribute significantly to the development of a dynamic and growing economy.

The Department's research and development focuses on supporting the work of the Canadian Forces, but many of our technological innovations have created important spin-offs and benefits for Canadian universities and the private sector.

The Department actively works in partnership with Canadian companies and universities to promote the transfer of new technologies to the private sector. Fully 55% of the Research and Development Branch's work is done in co-operation with Canadian industry and universities. We maintain close working relationships with the National Research Council, the Natural Sciences and Engineering Research Council, Health Canada and the Department of Fisheries and Oceans to support the federal government's broader efforts to foster innovation in Canada.

Taken collectively, Defence innovations and technology transfers to the private sector have helped to make Canada a world leader in communications and aerospace, and have indirectly created thousands of jobs for Canadians and billions of dollars in export sales.

Some of National Defence's leading-technology success stories include:

 Blood substitutes: work in the field of blood substitutes has led to the development of a new private Canadian industry that employs more than 70 people and is worth close to \$80 million. The blood substitutes could provide a secure source of blood, free from the dangers of HIV, hepatitis and other contaminants, for use with military traumas, burn cases and civilian patients.

- Land-mine detection: the Improved Landmine Detection Project has developed a
 multisensor, remotely operated mine detector for soldiers to use when clearing roads
 and other areas for troops on peacekeeping missions. It is a safe and effective
 detection system that will greatly improve the reliability and speed of mine detection.
 With millions of land mines lurking underground worldwide, this type of new
 technology has real market potential and supports Canada's international efforts to
 rid the world of land mines.
- Mine-countermeasure diving sets: as part of the efforts to produce technologies to reduce risk to the men and women of the Canadian Forces, specialized diving equipment for the Navy to support mine-countermeasure diving (de-mining underwater) has been developed. These diving sets have been successfully marketed worldwide. Gross sales to date total \$11 million, and potential sales to Japan and Malaysia could run between \$8 to \$12 million.

Looking to the future, the Research and Development Branch is currently working on a number of leading-edge technologies in areas such as virtual-reality simulators and robotics. The work supports the Department's efforts to find cost-effective ways to improve training and safety, as well as Canadian Forces operations at home and abroad.

RESEARCH AND DEVELOPMENT FACTS

- Each year, we invest about \$170 million in research and development in Canada

 approximately 5% of the federal government's total research and development funding and employ close to 1,000 scientists, engineers and technologists.
- We are one of the largest producers of patents in the country, and are recognized worldwide as a leader in defence science and innovation.

Institutional Reform

As society and the world around us change, we must take steps to ensure that we can keep up with the rapid pace of change and adapt to a new future. We must change the institution, learning from our past and building on our strengths.

Reform and renewal are cornerstones of charting our future. We have made significant progress on reforming and changing the way we oversee the Department and the

Canadian Forces. Some of the reforms were the result of the Somalia Commission of Inquiry and the Minister's Report to the Prime Minister. Others were initiated internally. We are in the process of implementing 315 recommendations from various reports; 79% of which have been completed.

Our progress can be noted through recent sweeping changes to the *National Defence Act* – the most comprehensive changes in the history of the Act. In December 1998 Bill C-25, *An act to amend the National Defence Act*, completed the legislative process and was given Royal assent. These amendments are a key component in the comprehensive program of institutional change that we have undertaken for the Canadian Forces and the Department. They are an important contribution to the rebuilding of the confidence of all Canadians and demonstrate our determination to renew the Canadian Forces as a vital national institution.

Human Resources and Quality of Life

The most important element of any institution is its people. The Department and the Canadian Forces are no different in this respect. Over the past year we have taken

positive steps to improve the wellbeing of our workforce and their quality of life.

Quality of life was the subject of a great deal of attention during 1998.



Beginning in October 1997 and ending in June 1998, the Standing Committee on National Defence and Veterans Affairs held a series of public meetings at various locations across Canada and Europe. The hearings resulted in 89 recommendations being made to improve the quality of life and living conditions for members of the Canadian Forces. Some of the recommendations in the parliamentary report cannot be dealt with immediately because the required legislation is not yet in place. But we have already undertaken many improvements and we are actively pursuing others.

Gender Integration

Canada is second only to the United States in the percentage of women employed in the military.



The representation of women in the Canadian Forces has not changed significantly since the 1989 Canadian Human Rights Tribunal order to remove employment restrictions. Recognizing the need to accelerate progress, we have taken clear steps to achieve improvement in this area.

The Canadian Human Rights Tribunal reviewed our progress on implementing the integration of women into military occupations. On 20 February 1989, it ordered that all obstacles be removed to the integration of women into the military occupations and roles. The sole exception was service in the Canadian Forces' current submarines. It further ordered that complete integration be achieved by 1999. In response, the Canadian Forces opened all remaining occupations and environments, except submarines, to women. Even submarine duty is being reviewed for the newly purchased *Upholder*-class submarines.

To improve the representativeness of our workforce, a diversity conference was held in February 1999. Participants included academics, leading Canadian experts in diversity issues, as well as governmental representatives from several departments and agencies such as Human Resources Development Canada, the Canadian Human Rights Commission, Treasury Board and the Multiculturalism directorate of Canadian Heritage. They reviewed our employment equity plan and made suggestions for improvement which we are incorporating into the plan.

The Department is committed to maximizing the potential of our workforce. In keeping with the Public Service's *La Rélève* program, we have developed a Workforce Renewal Program that focuses on workforce rejuvenation, renewal of management and leadership, managing reductions, balancing work and family, and partnering with unions. We are supporting the program by a series of learning and development initiatives. It is extremely important that we undertake these projects to prevent human-resource rust-out.

Military Justice

We improved our legal services by changing the structure for their delivery. This change was the result of recent reports and an increasing demand for services at all levels of the Department and the Canadian Forces. The reports identified the role of the Judge Advocate General and a clear division of responsibilities within the military justice system. In September 1998, the Office of the Department of National Defence and Canadian Forces Legal Advisor was opened. This is a co-operative effort with the Department of Justice.

Ombudsman

Mr. André Marin was appointed as the first Ombudsman for the Department of National Defence and Canadian Forces on 9 June 1998. The Ombudsman investigates complaints and serves as a neutral third party on matters related to the Department and the Canadian Forces. In January 1999, the Ombudsman presented his report, *The Way Forward*, which contained his proposals for an independent civilian body to oversee and serve the unique needs of the Department and the Canadian Forces. Shortly thereafter, the Ombudsman was provided with a mandate, giving him the legal authority to begin operations.

Openness and Transparency

The Department of National Defence and the Canadian Forces continue to make notable progress in their efforts to improve openness and transparency, to reach out and engage Canadians in defence issues, and to reach our own personnel. Still, more needs to be done.

During the past year, we worked with the Canadian academic community through the Security and Defence Forum; our intent has been to facilitate public discussion of emerging defence issues such as the revolution in military affairs and ballistic missile defence.

The Department and the Canadian Forces will continue to improve communication efforts both internally and externally.

We have moved ahead with efforts to improve the quality and availability of the information that we provide to Canadians. Throughout the Kosovo operation, for



example, our daily press briefings ensured that the media had the information they needed to cover the story, and a forum through which to pursue unfolding issues. During the past year, we opened new public affairs offices in Halifax, Montreal, Toronto and Vancouver; we improved corporate reporting to Parliament; we posted summaries of access-to-information releases on the Web; and we set up public reading rooms for journalists and researchers to review access-to-information releases.

We also continued to make progress on internal communications. Our internal newspaper, *The Maple Leaf*, was successfully turned into a bi-monthly publication. The public affairs Intranet site was redesigned to improve the internal exchange of information between Headquarters in Ottawa and Bases and Wings in the field.

Finally, we followed through on our commitment to bring in a new, progressive and open public affairs policy. Under the policy, departmental employees and Canadian Forces members can speak freely to the media and to the public about what they do, provided that they respect operational security and federal legislation such as the *Privacy Act*. This new policy has made us one of the more transparent institutions within the federal government.

During the past year, we maintained our focus on providing better and more timely information on our activities to Parliament, the Canadian public, the media and others with an interest in the Department and the Canadian Forces.

Access to Information

We continue to improve compliance with the access-to-information requirements established by the *Access to Information Act*. We received a record number of formal and informal requests during this past year. The combined total of formal and informal requests increased by 47% over that of last year (from 991 in 1997-1998 to 1,453 in 1998-1999). The volume of documentation (in numbers of pages) released to applicants has risen by 110% over the same period (from 134,799 in 1997-1998 to 282,473 in 1998-1999). We are committed to improving our efforts in this area, and have engaged Consulting and Audit Canada to carry out a review of the access-to-information process. We anticipate some useful results that will enable us to further improve the administration of the program.

Recognizing Individual Achievements

We are only able to achieve success through the dedicated efforts and professionalism of our people. In an environment of doing more with less, it is vital to recognize that the Defence team, comprised of military personnel, the Regular Force, the Reserve Force and civilian personnel, have made significant contributions on behalf of all Canadians.

Each year, we recognize meritorious achievements. Exceptional and outstanding achievements may be a deed or activity beyond the demands of normal duties, may relate to community or volunteer service, or have resulted in a benefit to the institution, or brought it credit (see Annex H for more information).

Departmental Performance Summary

The actions of the Department and the Canadian Forces demonstrate that we have delivered in all areas of our mandate, both at home and abroad. We have exceeded expectations while sustaining a high tempo of operations. At the same time, we have continued to support national priorities, and have made a good start down the road to implementing major reforms.

Despite public support, the institution is being stretched beyond its capacity to adjust. It is increasingly questionable whether we can sustain the current operational tempo, maintain new standards for the quality of life of our people, remain interoperable with United States forces and other allies, and continue to meet public and government expectations when we are called on to respond to crises at home and abroad.

In the short term, the high operational tempo has put significant strain on the quality of life of our personnel and their families, on training, and on equipment that has been used far longer and more frequently than expected at the time of its initial acquisition. In the long term, we face eventual rust-out of our people, equipment and supporting infrastructure, if we do not strengthen our investment in these areas.

Department of National Defence - Performance Report for the Period Ending 31 March 1999

The Department of National Defence and the Canadian Forces are working hard to meet the challenges they are currently facing. We are reallocating resources within our budget to sustain operations today, ensure fair and reasonable standards for the quality of life of our people, and maintain the long-term effectiveness of the Canadian Forces.

We have delivered on our commitments through the unwavering professionalism and dedication of the men and women who make up the Department and the Canadian Forces.

PART 3 – CHALLENGES AND OPPORTUNITIES

Defence is at a turning point. While we have made significant progress in managing change over the past few years, we continue to face major challenges – the primary one of which is ensuring both short- and longer-term operational effectiveness. Confronted with emerging new threats, the need to remain interoperable with the United States and other allies, and the requirement to sustain current operations, the Department and the Canadian Forces will have to make difficult decisions to ensure the continued operational effectiveness of the Forces.

Emerging New Threats

Continuing Risk of Instability

Throughout the duration of the Cold War, the risks associated with widening local conflicts were perceived to be so great that the superpowers and their respective allies tried to prevent any escalation. Since the end of the Cold War, this restraining influence has suffered some major setbacks. As the post-Cold War world continues to materialize, long-suppressed animosities have, on occasion, escalated into conflict. While the United Nations, regional bodies and organizations have had some success in resolving or at least containing these conflicts, there is no indication that these accomplishments will prevent conflict in the future.

Weapons Proliferation

Weapons proliferation is a multi-dimensional problem that poses long-term risks. While most attention is devoted to weapons of mass destruction, proliferation includes conventional, dual-use and space-related technologies as well as processes such as research and development, and production and manufacturing techniques.

Weapons of Mass Destruction

The proliferation of nuclear, biological and chemical (NBC) weapons, ballistic and cruise missiles, among others, presents important security challenges. The spread of these weapons of mass destruction into volatile regions undermines stability; poses a threat to neighbouring states; hinders arms control, disarmament and non-proliferation initiatives; and complicates military planning and operations. NBC and missile arsenals in the hands of potential aggressors are of particular concern.

The first priority is to prevent proliferation from occurring. Canada welcomes the progress achieved on the non-proliferation front in recent years, including the indefinite extension of the Nuclear Non-Proliferation Treaty, the entry into force of the Chemical

Weapons Convention, and continuing efforts to negotiate a verification protocol for the Biological and Toxin Weapons Convention. At the same time, Iraq's repeated attempts to evade United Nations monitoring of its NBC programs and the May 1999 Indian and Pakistani nuclear tests suggest that the risks posed by proliferation have not yet been eliminated.

Canada supports NATO initiatives, both political and military, to deal with the problem of proliferation. We believe that our troops should have the necessary protection against the potential use of NBC weapons, and we are pursuing programs in areas such as intelligence, detection, protective gear, decontamination and medical countermeasures.

Of particular concern is the possibility that terrorists might use weapons of mass destruction. This type of an attack, although highly unlikely, is the subject of increasing discussion among Canada and its allies. The discussions are focusing on how armed forces, as repositories of equipment and expertise, and in concert with other government departments, can best offer support to the appropriate civilian authorities responsible for dealing with NBC terrorism.

Our current activities in ballistic missile defence (BMD) are focused on research and consultation with like-minded nations. Any potential role that Canada may play in BMD would not be determined in isolation, but in the context of North American aerospace defence arrangements. Canada would not necessarily object to a NATO-wide theatre missile defence system, if there was consensus within the alliance that one was needed. But resource constraints would preclude us from funding work in this area, with the exceptions of ensuring interoperability with existing Canadian assets and research that complements our own BMD research. Any Canadian involvement in BMD would have to be cost-effective and affordable, and build on missions the Forces already perform, such as surveillance and communications.

Information Operations

As societies increasingly depend on information, and on the means for transmitting and processing it, information becomes both a source of strength and a potential area of vulnerability. The infrastructure necessary to support the transmission of information, for both civil and military purposes, can be attacked. If such an event occurred, military operations could be placed at risk or rendered useless. Attention will need to be paid to the risks posed by a such an attack either against the armed forces or the nation. We will also need to pay close attention to the advantages of having a leading edge in information technology.

Current Challenges

The workload faced by both civilian and military personnel is a continuing concern. The downsizing of personnel has not been accompanied by a commensurate decrease in workload. The result is that fewer people are doing more work than ever.

The people of Canada expect the Canadian Forces to be there when needed. We possess a multi-purpose, combat capability that serves as a national insurance policy when unforeseen events occur, such as Kosovo, the 1998 ice storm, the 1997 Manitoba flooding, and innumerable search-and-rescue incidents. We must be prepared at all times to be able to provide a suitable response. To meet this challenge, however, we must prepare for the future and invest in our people, equipment and infrastructure.

Year 2000

Dealing with the potential ramifications of the Year 2000 transition, much of which is yet an unknown, is another current challenge. We have an important role in providing assistance to the government should the need arise. We are developing a contingency plan, *Operation ABACUS*, to make sure that we have the optimum capability to respond. We have devoted a great deal of effort in planning for contingencies, while at the same time maintaining our commitments nationally and internationally.

Sustainability

As Kosovo demonstrated, modern operations are becoming increasingly demanding, complex and dangerous. All indications suggest that the world will remain unstable and unpredictable in the years ahead, and that the Canadian Forces will be called upon frequently to help the government respond to crises at home or abroad.

An overarching concern is the issue of sustaining current demand while trying to focus on our future capabilities. Developing those capabilities demands an investment today. We can ill afford to forget that procurement requires long lead times, and that a replacement piece of equipment does not appear overnight. The decisions we take today will have a direct and relevant impact on our future effectiveness.

With the increased operational tempo over the past year, we are placing an increased strain on our people that is detrimental to our operational effectiveness. Many men and women, especially those in specialist occupations, are serving in their fourth or fifth tour overseas in the last seven years. This situation also affects their



families, training and equipment. On average, for every soldier deployed overseas there are four more unseen soldiers – those who have just returned, those who have returned within the past six months, those who are undergoing pre-deployment training, and those who are unavailable for deployment due to national tasks. The cycle of increased operational deployments, using the same people over and over, is degrading our ability to respond as well as seriously degrading their quality of life.

We have to address these sustainability issues in both the short term and the long term. We must invest today in our people as well as the equipment that they will need, so they can do what the Government and people expect of them now and in the future.

Revolution in Military Affairs and Interoperability

An important policy debate today is whether or not the world is facing a revolution in military affairs (RMA). Advances in information technology and systems present the possibility of dramatically altering the way armed forces operate. Doctrinal and organizational changes currently under consideration seek to capitalize on emerging technological advances.

Revolution in Military Affairs

A major change in the nature of warfare brought about by advances in military technology, which combined with dramatic changes in military doctrine and organizational concepts, fundamentally alters the character and conduct of military operations.

These advances would effectively change the way armed forces apply force to support a nation's interests and objectives.

The United States is currently the only major military power to have invested a great deal of time and effort in studying the RMA. The Canadian Forces have begun to examine its implications. In late 1998, a symposium was convened where the issue was debated in some detail. Subsequently, a position paper on the implications of the RMA for the Canadian Forces was prepared; *Canadian Defence Beyond 2010 – A Way Ahead* is available at <www.dnd.ca>.

We will continue to look at the RMA in greater detail so that essential long-term planning can be undertaken, especially when dealing with procurement issues. The goal is to make the prudent investments and the trade-offs required to meet the defence challenges of tomorrow. Without these investments, we could face an interoperability gap with our allies and be unable to provide a meaningful contribution to combined operations.

Canada-United States Defence Relations

The United States is Canada's most important ally. Defence co-operation with the United States over the past 50 years has become an essential pillar of our defence capability. It gives us a level of security and a relationship with the US Armed Forces

that is the envy of our allies. More importantly, it lets us shape our future by giving us a say in critical areas of US defence policy formulation, along with inestimable advantages in military training, operational experience, and technological developments. It also yields economic advantages through privileged access to US defence markets and defence-related intelligence and information.

The significance of this co-operation has continued and even grown in the post-Cold War period. The US role as the sole remaining superpower, its evolving role in peacekeeping and its leadership in the RMA have great significance in the future of Canada-United States defence co-operation. Canada-United States defence relations are in a period of transition. A new security agenda is emerging in response to new post-Cold War threats to North American security.

One potential area for consideration is what the United States calls "homeland defence" – the protection of people, property and systems against non-traditional threats such as terrorism and attacks on infrastructure. A second and related issue is BMD for continental protection against missile attacks by rogue states armed with weapons of mass destruction, and accidental or unauthorized launches. Because of the physical proximity and the close ties enjoyed between Canada and the United States, the well-being of our defence relationship will require that we continue to examine the Canadian approach to homeland defence. This will include developments such as BMD and the future of the North American Aerospace Defence Agreement. By improving interoperability with the United States, we can maintain satisfactory security conditions to our mutual benefit.

A Strategy for 2020

We enter the next millennium with the support of a large majority of Canadians. In fact, recent polls indicate that Canadians continue to support the fundamental underpinnings of Canada's defence policy.

Over 92% agree that Canada needs the Canadian Forces and 83% agree that the Canadian Forces will be called upon to do more over the next decade. A majority of Canadians also believe that the world has become more dangerous since the end of Cold War.

Recent events have demonstrated that the Canadian Forces must continue to adapt to the changing realities that are reshaping both international and military affairs. As events in Kosovo show, modern peace operations are becoming increasingly intense, complex and dangerous. Rapid technological change is having a major effect on military operations, communications, equipment, doctrine and infrastructure, and represents a significant challenge for the Department. Other challenges include addressing the quality-of-life concerns of members of the Forces. While the Department has made progress in this area, more must be done to improve housing, medical and health services. Ultimately, as the Auditor General pointed out in his 1998 report, the

Canadian Forces must increase their investment in the long-term capital program or face eventual rust-out.

In view of this, and the fact that the future is uncertain, the task of ensuring adequate levels of military forces is a challenging one for both the immediate and the longer-term future. To address the problems we are facing, we must plan for the long term and integrate new equipment, doctrine and training into an efficient, affordable, multipurpose, combat-capable force for Canada. We must plan at least 10 to 15 years ahead

to guarantee that Canada's return on our defence

investments is maximized.

To adapt to change in a paced and structured manner, the Department has developed a long-term strategy to guide defence planning. We are working hard to focus resources on our core capabilities, deliver non-core services differently to maximize efficiencies, and reallocate resources based on priorities within the Defence budget.



Shaping the Future of the Canadian Forces: A Strategy for 2020 is part of the Department's long-term planning framework. This document outlines how best to meet Canada's defence commitments put forward in the 1994 Defence White Paper, while adjusting to emerging defence issues. It also sets long-term objectives and five-year targets.

A Strategy for 2020 marks a significant milestone, and will help guide the institution well into the next century. It serves as a bridge between current policy and the future, and is designed to focus defence decision-making. More information on the strategy appears on our Web site at http://www.dnd.ca.

Conclusion

More was asked of the Department of National Defence and the Canadian Forces in 1998-1999 than in any other period since the Korean War. At the same time, the defence team faced significant challenges in their work on behalf of all Canadians. In addition to managing the high operational tempo, the Department and the Forces were confronted with emerging new threats, important procurement issues and a revolution in military affairs.

Also, like other Canadian institutions, the defence team is grappling with significant social and demographic change requiring reform and renewal: health care, quality of life, openness and transparency, and accountability are all growing in importance to our people, their families and the Canadian public.

The Department and Canadian Forces are working hard to meet the challenges they are facing, and have made significant progress over the past year. A long term strategy has been developed to guide Defence planning, and maximize "value-for-money" for Canada's defence investments. The Department and Forces have started to re-invest in the quality of life of their people, having increased pay for Canadian Forces members and support services for their families. And, the Department is implementing more than 300 institutional reforms to strengthen accountability, encourage openness and transparency, and make the military justice system fairer and more effective.

In moving forward, Defence must sustain operations today, provide its members with a better quality of life, and make the investments needed to ensure Canada has the defence capabilities it needs for tomorrow and for the future.

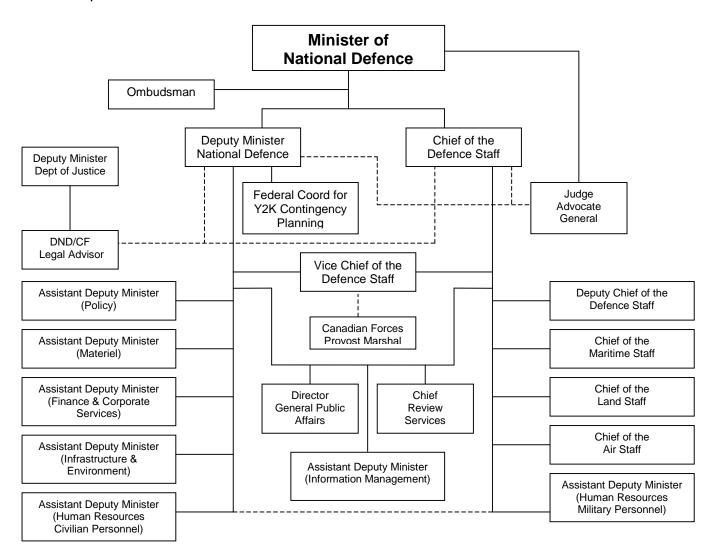
Despite the challenges of the past year, the men and women of the Department of National Defence and the Canadian Forces have met and often exceeded the expectations of the government and the people of Canada.

PART 4 – SUPPLEMENTARY INFORMATION

This section contains supplementary information on the Department of National Defence and the Canadian Forces.

Organization Chart

This diagram reflects the current higher-level organization of National Defence Headquarters.



Financial Performance

This section contains the following Financial Summary Tables:

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For information on the Status of Major Crown Projects please refer to the Department of National Defence 1999-2000 Report on Plans and Priorities, pages 31 to 88.

Table 1 Summary of Voted Appropriations

Vote		1998-99	1998-99	
		Main Estimates	Total Authorities 1	1998-99 Actua
	Defence Services Program			
1	Operating Expenditures	6,875.7	7,245.4	7,209.5
5	Capital Expenditures	1,643.9	1,751.9	1,758.8
10	Grants and Contributions	170.1	565.5	503.3
(S)	Minister of National Defence - Salary and motor car allowance			
(S)	Pensions and annuities paid to civilians	0.2	0.1	0.1
(S)	Military pensions	546.8	586.3	586.3
(S)	Contributions to employee benefit plans	146.0	153.4	153.4
(S)	Spending of proceeds from the disposal of Crown assets		40.3	39.9
(S)	Federal Court Awards		5.2	5.2
(S)	Collection Agency Fees		0.1	0.1
	Total Department	9,382.7	10,348.1	10,256.5

Table 2
Departmental Planned Spending versus Actual Spending

Service Line	Actual ¹ 1995-96	Actual ¹ 1996-97	Actual ¹	Total Planned 1998-99	Total Authorities 1998-99	Actual 1998-99
Maritime Forces	2,287.0	2,071.3	1,978.8	1,817.5	1,927.8	2,099.5
Land Forces	3,133.4	2,994.9	2,889.9	2,711.5	2,882.6	2,994.6
Air Forces	2,676.1	2,530.5	2,433.9	2,190.7	2,329.4	2,613.0
Joint Operations and Civil Emergency Preparedness	318.1	285.2	488.6	339.7	779.4	762.0
Communications and Information Management	439.9	367.0	334.1	395.3	419.3	239.6
Support to the Personnel Function	1,086.6	881.0	862.1	791.8	838.6	483.1
Material Support	929.9	864.1	736.4	682.4	723.1	658.0
Department/Forces Executive	502.8	579.0 ²	463.4	453.8	448.0	406.6
Total	11,373.8	10,573.0	10,187.2	9,382.7	10,348.2	10,256.5

^{1.} Includes the spending of proceeds from the sale of surplus assets.

^{2.} Transfer payments associated with Emergency Preparedness Canada are incorporated into the figures for Department/Forces Executive for 1996-97 in accordance with the presentation contained in Estimates documents and the Public Accounts for that year.

Table 3 Comparison of Planned Spending to Actual Spending by Service Line

Service Line		Operating ¹	Capital ¹	Voted Grants and Contributions	Subtotal: Gross Voted Expenditures	Statutory Grants and Contributions	Total Gross Expenditures	Less: Revenue Credited to the Vote	Total Net Expenditures
Maritime Forces	-Main Estimates	1,509.5	331.7		1,841.2		1,841.2	23.7	1,817.5
	-Total Authorities	1,598.0	353.5		1,951.5		1,951.5	23.7	1,927.8
	-Actuals	1,760.2	362.4		2,122.6		2,122.6	23.1	2,099.5
and Forces	-Main Estimates	2,236.8	607.7		2,844.5		2,844.5	133.0	2,711.5
	-Total Authorities	2,368.0	647.6		3,015.6		3,015.6	133.0	2,882.6
	-Actuals	2,412.1	727.8		3,139.9		3,139.9	145.3	2,994.6
Air Forces	-Main Estimates	1,912.2	404.0		2,316.2		2,316.2	125.5	2,190.7
	-Total Authorities	2,024.3	430.5		2,454.8		2,454.8	125.5	2,329.4
	-Actuals	2,376.6	385.1		2,761.6		2,761.6	148.6	2,613.0
Joint Operations and Civil									
Emergency Preparedness	-Main Estimates	272.7	64.6	6.1	343.4		343.4	3.7	339.
	-Total Authorities	288.6	68.8	425.6	783.0		783.0	3.7	779.
	-Actuals	352.4	48.7	366.0 ²	767.1		767.1	5.1	762.0
Communications and		0040	24.0		200.0				205
nformation Management	-Main Estimates	304.0	94.2		398.2		398.2	2.9	395.3
	-Total Authorities	321.8	100.4		422.2		422.2	2.9	419.3
	-Actuals	186.7	55.5		242.2		242.2	2.6	239.6
Support to the									
Personnel Function	-Main Estimates	744.0	48.7	0.3	793.0	18.2	811.2	19.4	791.8
	-Total Authorities	787.7	51.9	0.3	839.9	18.2	858.0	19.4	838.6
	-Actuals	404.6	83.6	0.2	488.4	16.0	504.4	21.3	483.1
Material Support	-Main Estimates	604.6	77.0	4.7	686.3		686.3	3.9	682.4
	-Total Authorities	640.1	82.1	4.8	727.0		727.0	3.9	723.1
	-Actuals	554.0	105.1	3.7	662.8		662.8	4.8	658.0
Department/Forces Executive	-Main Estimates	294.7	16.0	159.0	469.7		469.7	15.9	453.
	-Total Authorities	312.1	17.1	134.8	464.0		464.0	15.9	448.0
	-Actuals	262.4	23.0	133.4	418.8		418.8	12.2	406.6
- Totals	-Main Estimates	7,878.5	1,643.9	170.1	9,692.5	18.2	9,710.7	328.0	9,382.7
	-Total Authorities	8,340.6	1,751.9	565.5	10,658.0	18.2	10,676.2	328.0	10,348.2
	-Actuals	8,309.0	1,791.3	503.2	10,603.5	16.0	10,619.6	363.0	10,256.

^{1.} Operating includes the spending of the proceeds from the disposal of surplus assets (\$3.4M), contributions to employee benefit plans (\$739.7M) and ministers' allowances (\$.05M). Capital includes the spending of the proceeds from the sale of surplus assets (\$36.5M).

The Main Estimates do not include funds for Disaster Financial Assistance Arrangements Payments. These payments totalled \$359.2M in 1998-99.

Table 4
Departmental Revenues/Revenues Credited to the General Government Revenues

	Actual 1995-96	Actual 1996-97	Actual 1997-98	Total Planned 1998-99	Total Authorities 1998-99	Actual 1998-99
Departmental Revenues	367.8	401.7	366.6	328.0	328.0	363.0
General Government Revenues	99.4	111.0	282.1	17.0	17.0	100.2
Total	467.2	512.7	648.7	345.0	345.0	463.2

Table 5
Transfer Payments by Service Line

Service Line	Actual 1995-96	Actual 1996-97	Actual 1997-98	Total Planned 1998-99	Total Authorities 1998-99	Actual 1998-99
GRANTS						
Maritime Forces						
and Forces						
Air Forces						
Joint Operations and Civil Emergency Preparedness			0.1	0.1	0.1	0.1
Communications and nformation Management						
Support to the Personnel Function	0.2	0.1	0.1	0.2	0.2	0.1
Material Support					0.1	0.1
Department/Forces Executive	10.4	10.5 1	10.8	3.7	3.8	3.7
Total Grants	10.6	10.6	10.9	4.0	4.1	4.0
CONTRIBUTIONS						
Maritime Forces						
Land Forces						
Air Forces						
Joint Operations and Civil Emergency Preparedness			149.2	6.1	425.5	365.9
Communications and Information Management						
Support to the Personnel Function	19.0	17.8	16.9	18.3	18.3	16.0
Material Support				4.7	4.7	3.6
Department/Forces Executive	184.5	279.7 1	136.8	155.2	131.1	129.7
Total Contributions	203.5	297.5	303.0	184.3	579.5	515.2
Total Transfer Payments	214.1	308.1	313.9	188.3	583.7	519.2

Transfer payments associated with Emergency Preparedness Canada are incorporated into the figures for Policy Direction and Management Services for 1996-97 in accordance with the presentation contained in Estimates documents and the Public Accounts for that year.

Table 6
Capital Expenditures by Service Line

Service Line	Actual 1995-96	Actual 1996-97	Actual 1997-98	Total Planned 1998-99	Total Authorities 1998-99	Actual 1998-99
Maritime Forces	808.4	519.9	400.2	331.7	353.5	361.4
Land Forces	917.5	882.6	752.7	607.7	647.6	721.1
Air Forces	534.0	556.2	451.0	404.0	430.5	384.1
Joint Operations and Civil Emergency Preparedness	59.0	22.5	67.3	64.6	68.8	52.5
Communications and Information Management	109.2	63.8	53.7	94.2	100.4	55.5
Support to the Personnel Function	73.6	118.2	92.5	48.7	51.9	82.9
Material Support	173.3	255.4	159.2	77.0	82.1	78.2
Department/Forces Executive	11.2	10.7	28.4	16.0	17.1	23.0
Total	2,686.3	2,429.1	2,005.1	1,643.9	1,751.9	1,758.8

Table 7
Costs of Peacekeeping and Related Operations

(\$ millions)	ı	ESTIMATE 1998	-99		ACTUAL 1998-99			
	Full Cost	Incremental Cost	Estimated Revenue	Full Cost	Incremental Cost	Estimated Revenue		
Bosnia-Herzegovina UNPROFOR			15.0	0.0	0.0	8.0		
Bosnia-Herzegovina NATO Stabilization Force (SFOR) Op PALADIUM	100.3	34.4	0.0	341.8	100.6	0.0		
United Nations Mission of Observers in Prevlaka (UNMOP) and United Nations Preventive Deployment Force in the Former Republic of Macedonia (UNPREDEP)	0.4	0.1	0.0	0.6	0.2	0.0		
NATO Multinational Air Movement Detachment (MAMDRIM) – Op BISON	0.6	0.4	0.0	0.6	0.4	0.0		
Bosnia-Herzegovina Mine Action Center (BHMAC)- Op NOBLE	0.2	0.1	0.0	1.0	0.4	0.0		
Kosovo - SFOR, Op ECHO				147.6	15.0	0.0		
Kosovo - Op KIMONO				3.7	1.5	0.0		
Macedonia - Op GUARANTOR				3.4	0.8	0.0		
Macedonia - Op KAYAK				0.3	0.1	0.0		
Multinational Interception Force (MIF) (Persian Gulf) Op Determination				20.4	2.1	0.0		
Multinational Interception Force (MIF) (Arabian Gulf) Op Mercator	31.2	2.1	0.0	31.2	2.1	0.0		
Cambodia UNDP (CMAC)	0.9	0.3	0.0	1.0	0.3	0.0		
SWISS AIR Crash Op PERSISTENCE				33.7	11.7	0.0		
Golan Heights (UNDOF)	26.4	6.4	3.6	26.4	6.4	5.0		
Sinai (MFO)	2.7	0.9	0.5	2.7	0.9	0.0		
Middle East (UNTSO)	1.4	0.6	0.0	1.4	0.6	0.0		
Iraq (UNSCOM) Op FORUM	0.6	0.3	0.0	0.6	0.3	0.0		
Kuwait (UNIKOM) Op RECORD	0.5	0.2	0.0	0.8	0.3	0.2		
Central African Republic - MINURCA				16.7	2.8	0.2		
Cyprus (UNFICYP) Op SNOWGOOSE	0.4	0.1	0.0	0.4	0.2	0.0		
UN Civilian Police Mission in Haiti (MIPONUH) Op COMPLIMENT	2.3	1.8	0.6	2.3	1.8	0.0		
Rwanda (UNAMIR)				0.0	0.0	0.5		
Honduras - Op Central				26.2	3.6	0.0		
Cambodia (UNTAC)				0.0	0.0	0.7		
Guatemala (Op QUARTZ)				0.0	0.0	0.0		
Italy (Op SARNO - Mud Slide)				2.1	0.3	0.0		
Haiti (Stable.Constable) (UNMIH,UNSMIH,UNTMIH)	7.9	7.9	7.0		7.9	8.2		
TOTALS:	175.8	55.6	26.7	672.8	160.3	22.8		

This table provides details on the full and incremental costs of peacekeeping and related operations. The full costs includes civilian and military salaries, allowances and benefits; special equipment purchases; the cost of moving personnel and equipment; equipment depreciation; and special training costs. Incremental cost is derived by excluding certain cost components – such as salaries, equipment depreciation and some equipment operating costs – which would have been incurred in the course of normal training and domestic operations. As such, the incremental cost is the additional cost to the Department of undertaking the operation. The Government of Canada is reimbursed, to a certain extent, by the United Nations for personnel costs (a monthly sum per person authorized by the United Nations), some preparation costs, transportation to and from the mission area, depreciation on contingent equipment, and death and disability payments.

Table 8

Capital Projects by Service Line/Activity (\$000)

PROJECT TITLE	Currently Estimated Total cost	Forecast Expenditures to March 31, 1999	Planned Expenditures 1999-00	Expenditures	Planned Expenditures 2001-02	Future Years Requirements
MARITIME FORCES						
<u>Construction</u>						
St. John's Newfoundland HMCS CABOT (S-EPA)	14,640	6,740	7,800	100	-	-
Halifax, Nova Scotia		,	Ź			
SRU(A) FACILITIES (S-EPA) MAIN SUPPLY BUILDING (S-EPA)	20,410 30,010	1,510 29,910			-	-
FIRE FIGHTER TRAINING FACILITY (S-EPA)	17,000	· ·	10,500		-	-
JETTY NB (S-EPA)	35,560	35,510	50	-	-	-
DOCKYARD FITNESS CENTRE (S-EPA)	4,230		3,330	-	-	-
COMMUNITY CENTRE (S-PPA) GYM/FITNESS CENTRE (S-EPA)	5,750 2,800		5,650 2,600	-	-	-
Winnipeg, Manitoba						
HMCS CHIPPAWA (S-EPA)	7.050	2,000	5,050	-	-	-
Esquimalt, British Columbia						
FLEET MAINTENANCE FACILITY CAPE BRETON (S-EPA-II)	89,090		12,000		18,000	30,000
REFUELING FACILITY UPGRADE (S-PPA) FIRE FIGHTER TRAINING FACILITY (S-EPA)	36,000 22,450	· ·	7,000 14,800	27,880 4,000	_	-
NEW VENTURE NOTC FACILITIES (S-EPA)	6,200					-
OFFICER ACCOMMODATIONS (S-EPA)	13,190		1,750		-	-
MARPAC HQ CONSOLIDATION (S-EPA)	3,810	1,280		2,080	-	-
COMMUNITY CENTRE (S-EPA)	2,600	100	2,500	-	-	-

PROJECT TITLE	Currently Estimated Total cost	Forecast Expenditures to March 31, 1999	Planned Expenditures 1999-00	Planned Expenditures 2000-01	Planned Expenditures 2001-02	Future Years Requirements
<u>Equipment</u>						
TOWED ARRAY SONAR SYSTEM (S-EPA)	111,881	108,663	2,948	_	_	270
CANADIAN PATROL FRIGATE(incl. Phase II) (S-EPA)	8,980,368	8,750,877	112,246	50,080	52,905	14,260
TRIBAL CLASS UPDATE AND MODERNIZATION PROJECT (S-EPA)	1,417,457	1,382,510	19,856	8,658	1,693	4,740
LINE OF SIGHT ULTRA HIGH FREQUENCY REPLACEMENT UPDATE (S-EPA)	19,105	18,838	267	´ -	· -	´ -
OPERATION INFORMATION SYSTEM MARK III (S-EPA)	44,776	16,497	6,460	7,045	6,714	8,060
TORPEDO DEFENCE SYSTEM (S-EPA)	18,257	13,939	1,500	-	-	2,818
NAVAL COMBAT OPERATOR TRAINERS (S-EPA)	34,852	17,313	8,177	9,362	-	-
MARITIME COASTAL DEFENCE VESSELS (S-EPA)	707,625	634,017	32,803	9,457	31,350	-
BLIND PILOTAGE TRAINER (S-EPA-DA)	3,734	3,262	213	259	-	-
JUNIOR OFFICER BRIDGE SIMULATOR (S-EPA)	16,814	13,353	1,627	1,834	-	-
CANADIAN SUBMARINE CAPABILITY LIFE EXTENSION (S-EPA)*	811,973	71,226	82,701	139,688	148,463	369,895
PHALANX CLOSE-IN WEAPONS SYSTEM (S-EPA)	31,633	29,281	1,104	-	-	1,248
POLLUTION CONTROL SYSTEMS FOR SHIPS (S-EPA)	38,718	22,572	9,679	3,210	-	3,257
ACTIVE PHASED ARRAY RADAR (S-EPA)	49,795	41,190	5,493	1,590	1,522	-
INTEGRATED UNDERSEA SURVEILLANCE CENTRE (S-EPA)	26,520	25,710	810	-	-	-
AUXILIARY VESSEL QUEST MID-LIFE REFIT (S-EPA-DA)	9,778	8,955	60	-	-	763
IMPROVED POINT DEFENCE MISSILE (S-EPA)	34,877	30,687	3,260	930	-	-
MESSAGE HANDLING SYSTEM (S-EPA-DA)	8,072	4,819	2,334	800	119	-
ADVANCED ELECTRO-OPTIC SENSOR (S-EPA)	16,256	10,284	1,443	915	-	3,614
REMOTING OF NAVAL RADIO STATIONS (S-EPA)	39,697	6,132	16,494	14,402	1,314	1,355
COMMUNICATIONS - DATA LINK 16 (S-EPA-DA)	21,840	9,193	9,694	2,073	-	880
COMMUNICATIONS - DATA LINK 22 (S-EPA-DA)	6,241	4,688	1,012	542	-	-
ADVANCED TACTICAL ELINT SHIPBOARD SYSTEM (S-EPA-DA)	25,310	23,344	714	628	556	68
NETWORKING COMINT CAPABILITY IROQUOIS & HALIFAX CLASS SHIPS(S-EPA-DA)	14,867	2,260	6,425	5,218	964	-
SHIPBOARD INTEGRATED NAVIGATION AND DISPLAY SYSTEM (S-EPA-DA)	4,225	3,931	294	-	-	-
IROQUOIS CLASS TRACK MANAGEMENT SYSTEM (S-EPA-DA)	15,323	6,260	4,594	3,308	1,161	(0)
SUPER HIGH FREQUENCY SATELLITE COMMUNICATION (S-EPA-DA)	5,374	4,696	678	-	-	-

PROJECT TITLE	Currently Estimated Total cost	Forecast Expenditures to March 31, 1999	Planned Expenditures 1999-00	Planned Expenditures 2000-01	Planned Expenditures 2001-02	Future Years Requirements
LAND FORCES						
Construction						
Valcartier, Quebec						
SHAWINIGAN ARMOURY (S-EPA)	26,900	840	1,860	1,100		21,990
5 SERVICE BATTALION (S-EPA)	25,750	10,780	11,220	3,750	-	-
REPLACEMENT OF ROOF, SIDING, AND WINDOWS (S-EPA) RE-INFORCE THE STRUCTURE OF FLAT ROOFS (S-PPA)	1,300 4,000	600 520	700 3,480	-	-	-
NEW GYM ADDITION (S-EPA)	7,140	200	6,940	_	_	_
CONSTRUCTION OF COMMUNITY CENTRE (S-PPA)	2,000	80	1,920	_	-	-
RENOVATE ARENA (S-EPA)	1,000	30	970	-	-	-
Gagetown, New Brunswick						
MILITIA TRAINING SUPPORT CENTRE (S-EPA)	58,190	57,190	1,000	-	-	-
4 ENGINEER SUPPORT REPLACEMENT FACILITY (S-EPA)	17,280	140	-	1,550	14,000	1,590
1800 KITCHEN/MESS HALL (S-EPA)	16,450	800	13,380	2,270	-	-
GYM ADDITION (S-EPA)	7,650	200	7,450	-	-	-
RENOVATE ARENA (S-EPA)	1,190	100	1,090	-	-	-
Montréal, Québec						
ELECTRICAL NETWORK REPLACEMENT (S-EPA)	3,000	800	1,200	1,000	-	-
FITTING OUT THE DINING ROOM (S-EPA)	2,220	220	2,000	-	-	-
FITNESS CENTRE (S-PPA)	2,500	30	2,480	-	-	-
Kingston, Ontario						
GRANT BUILDING RENOVATIONS (S-EPA)	1,500	300	1,200	-	-	-
KINGSTON CONSOLIDATION (S-PPA)	55,000	250	-	-	-	54,750

PROJECT TITLE	Currently Estimated Total cost	Forecast Expenditures to March 31, 1999	Planned Expenditures 1999-00	Planned Expenditures 2000-01	Planned Expenditures 2001-02	Future Years Requirements
Petawawa, Ontario BASE CONSOLIDATION BUILDING S111 (S-EPA) CENTRAL HEATING PLANT BOILER REPLACEMENT (S-PPA)	1,800 2,950	950 250	850 150	2,550	-	-
2 FIELD AMBULANCE FACILITY (S-EPA) FIGHTING IN BUILT-UP AREAS TRAINING SITES (S-PPA) GYM/RENOVATE ARMY POOL (S-EPA)	8,880 6,000 7,840	1,880 1,000 200 70	7,000 1,000 7,640	1,000	1,000 -	2,000 -
NEW COMMUNITY CENTRE (S-EPA) RENOVATE ARMY ARENA (S-EPA) Borden, Ontario	2,870 4,500	70	2,800 4,430	-	-	-
FITNESS CENTRE/POOL (MEAFORD) (S-EPA) London, Ontario KITCHENER ARMOURY (S-EPA)	2,600 1,400	100 290	2,500 1,110	-	-	
Shilo, Manitoba RCHA COMPLEX (S-EPA) COMMUNITY CENTRE (S-PPA) RENOVATE GYM (S-EPA)	28,070 2,800 3,100	27,180 50 160	880 150 2,890	10 2,400 50	200	-
Suffield, Alberta CONSOLIDATE DRES (S-EPA) NEW GYM/FITNESS CENTRE (S-PPA)	4,700 3,900	300 100	1,200 300	2,400 3,500	800 -	- -
Wainwright, Alberta MILITIA TRAINING SUPPORT CENTRE (S-EPA) RENOVATE GYM (S-PPA)	45,280 2,800	35,460 300	9,820 2,500	-	-	-
Edmonton, Alberta NAT. CADET SUMMER TRAINING CENTRE (S-EPA) AREA SUPPORT GROUP CONSOLIDATION (S-EPA) SERVICE DETENTION BARRACKS (S-PPA)	16.250 14,000 3,500	5,750 3,000 150	10,500 8,000 2,850	3,000 500	-	-
FAMILY RESOURCE/COMMUNITY CENTRE (S-EPA) RENOVATE POOL (S-EPA) RENOVATE ARENA (S-EPA)	3,600 1,500 1,200	3,500 200 200	1,300 1,000	-	-	- - -

PROJECT TITLE	Currently Estimated Total cost	Forecast Expenditures to March 31, 1999	Planned Expenditures 1999-00	Planned Expenditures 2000-01	Planned Expenditures 2001-02	Requirements
<u>Equipment</u>						
LIGHT ARMOURED VEHICLE LIFE EXTENSION (S-EPA)	57,023	1,311	17,340	24,719	13,652	-
LIGHTWEIGHT THERMAL UNDERWEAR(S-EPA-DA)	5,609	1,500	4,109	-	-	-
HOWITZER UPGRADE AND AUGMENTATION (S-EPA)	49,884	45,837	2,000	2,047	-	-
LOW LEVEL AIR DEFENCE (S-EPA)	1,068,118	1,053,402	4,252	5,669	4,795	-
TACTICAL COMMAND CONTROL AND COMMUNICATION SYSTEM (S-EPA)	1,927,783	1,608,873	124,268	130,984	63,658	-
LAND FORCES COMMAND SYSTEM (S-EPA)	178,425	58,768	48,507	44,466	23,195	3,489
LIGHT SUPPORT VEHICLE WHEELED (S-EPA)	273,590	262,676	6,066	4,676	-	172
GENERATOR REPLACEMENT PROJECT (S-EPA)	32,075	31,566	509	-	-	-
EQUIPMENT FOR LIVE FIRING RANGES (S-EPA)	37,458	37,023	435	-	-	-
GRENADE PROJECTOR (S-EPA)	12,460	920	11,540	-	-	-
CHEMICAL AGENT MONITOR (S-EPA)	34,232	33,032	1,200	-	-	-
SHORT RANGE ANTI-ARMOUR WEAPONS (S-EPA)	185,090	142,811	29,116	9,096	-	4,067
LAND SOFTWARE ENGINEERING FACILITY (S-EPA-DA)	6,618	1,751	2,318	1,566	922	61
LAND TACTICAL ELECTRONIC WARFARE IMPROVEMENTS (S-EPA)	75,891	68,509	6,489	893	-	-
NIGHT OBSERVATION DEVICE LONG RANGE (S-EPA)	53,028	47,400	5,123	505	-	-
SURFACE MUNITIONS CLEARANCE DEVICE (S-EPA-DA)	5,692	4,993	699	-	-	-
LIGHT UTILITY VEHICLE WHEELED (S-EPA)	192,213	917	9,396	62,891	44,546	74,463
CENTRAL POWER VEHICLE (S-EPA-DA)	11,198	1,508	3,227	2,666	2,387	1,411
VALCARTIER - MILITIA TRAINING AND SUPPORT CENTRE (S-EPA)	53,528	51,228	2,300	-	-	-
SIMULATION EQUIPMENT (S-EPA)	33,454	16,651	14,984	1,384	435	-
LYNX REPLACEMENT PROJECT (S-EPA)	883,686	792,201	56,519	18,212	16,754	-
ARMOURED PERSONNEL CARRIERS (S-EPA)	1,272,155	383,425	453,618	229,088	68,884	137,140
CLOTHE THE SOLDIER PROJECT(DEFINITION) (PPA)	5,006	2,971	940	1,095	-	-
LEOPARD THERMAL SIGHT (S-EPA)	138,939	53,096	46,001	33,494	6,348	-
IONIZING RADIATION SAFETY (S-EPA-DA)	7,258	4,851	283	256	289	1,579
POSITION DETERMINATION AND NAVIGATION SYSTEM (S-EPA)	69,673	46,437	8,222	12,761	2,253	-
IMPROVED LANDMINE DETECTION CAPABILITY (S-EPA)	25,289	5,638	10,138	7,411	2,102	-
BALLISTIC PROTECTION FOR 'B' VEHICLE FLEET (S-EPA)	17,041	16,941	100	-	-	-
HEAVY DUMP TRUCK REPLACEMENT (S-EPA)	11,830	11,226	604	-	-	-
ARMOURED PERSONNEL CARRIERS LIFE EXTENSION (S-EPA)	331,773	13,501	50,747	36,244	47,066	184,215
IMPROVED ENVIRONMENTAL CLOTHING SYSTEM (S-EPA)	62,926	18,910	24,918	18,576	523	-
COLD WET WEATHER GLOVE (S-EPA-DA)	5,906	1,942	3,964	-	-	-

PROJECT TITLE	Currently Estimated Total cost	Forecast Expenditures to March 31, 1999	Planned Expenditures 1999-00	Planned Expenditures 2000-01	Planned Expenditures 2001-02	Future Years Requirements
AIR FORCES						
Construction						
Gander, Newfoundland						
103 RESCUE UNIT EXTENSION (S-EPA) RENOVATE GYM (S-PPA)	1,550 1,500	600 100	950 1,400	-	-	-
RENOVATE OTM (5-11 A)	1,500	100	1,400	-	-	-
Bagotville, Quebec RENOVATE GYM (S-EPA)	3,100	80	3,020			
RENOVATE COMMUNITY CENTRE (S-EPA)	2,180	120	2,060	-	-	-
Greenwood, Nova Scotia						
POL FARM REPLACEMENT (S-EPA)	3,200	800	2,400	-	-	-
NEW GYM/POOL COMPLEX (S-EPA)	10,000	1,600	8,400	-	-	-
Trenton, Ontario						
UPGRADE UTILITIES MQ SEWERS (S-EPA)	6,250	1,750	1,500	1,500	1,500	-
HANGAR LINE REHABILITATION (S-PPA) REPAIR EXT BRICKWORK PETERBOROUGH (S-EPA)	12,250 5,400	250 880	4,000 4,530	8,000	-	-
KLI AIK LAT BRICKWOKK I LI LABOROUGH (5-LI A)	3,400	300	4,550			
Winnipeg, Manitoba REPLACE CURTAIN WALL - B25 (S-EPA)	2,390	90			2,300	
RENOVATE GYM (S-PPA)	3,600	50	3,550	-	2,300	-
GYM/POOL (PPCLI) (S-PPA)	1,580	80	1,500	-	-	-
Cold Lake, Alberta						
AETE FACILITY (S-EPA)	19,360	17.56	1,700	100	-	-
ELECTRICAL AND MECHANICAL ENGINEERING (S-EPA)	6,600	3,880	2,620	100	-	-
REPLACE SANITARY/STORM/UPGRADE ROADS (S-EPA) REPLACE AIRFIELD LIGHTING & AIRFIELD LIGHTING POWER CENTRE (S-EPA)	13,160 4,800	260 3,000	1,560 1,800	4,000	3,300	4,040
FITNESS, SPORTS & REC CENTRE (S-EPA)	13,900	9,000	2,300	2,400	200	-
Comox, British Columbia						
WASH FACILITY (S-EPA)	4,250	3,750	500	-	_	_
NEW MAGAZINE COMPLEX (S-EPA)	3,600	200	3,400	-	-	-
REPLACE AIR TRAFFIC CONTROL TOWER (S-EPA)	6,800	4,200	2,600	-	-	-

PROJECT TITLE	Currently Estimated Total cost	Forecast Expenditures to March 31, 1999	Planned Expenditures 1999-00	Planned Expenditures 2000-01	Planned Expenditures 2001-02	Future Years Requirements
<u>Equipment</u>						
ELECTRONIC SUPPORT AND TRAINING SYSTEMS (S-EPA)	202,650	157,169	15,508	5,464	2,426	22,083
NORTH AMERICAN AIR DEFENCE MODERNIZATION (S-EPA)	1,063,882	1,057,342	6,540	-	-	-
CF18 – ADVANCED AIR-TO-AIR WEAPONS – SHORT RANGE (S-EPA)	20,038	6,459	3,837	3,671	2,616	3,455
SEARCH AND RESCUE SATELLITE (S-EPA)	64,874	61,537	2,784	-	-	553
EW SELF PROTECTION SUITES FOR TACTICAL TANKER AIRCRAFT	46,416	46,116	300	-	-	-
CF18 - RADAR WARNING RECEIVER MODERNIZATION (S-EPA-DA) DEFINITION	6,151	5,058	1,093	-	-	-
TACTICAL TRANSPORT TANKER (S-EPA)	347,911	334,005	13,906	-	-	-
MILITARY AUTOMATED AIR TRAFFIC SYSTEM (S-EPA)	162,304	38,659	39,467	36,547	35,149	12,482
CC130 - AVIONICS UPDATE (S-EPA)	95,880	17,230	48,500	-	-	30,150
ADVANCED AIRCRAFT NAVIGATION SYSTEM (S-EPA)	92,049	4,700	6,932	17,160	24,428	38,829
AIR FORCE COMMAND AND CONTROL INFORMATION SYSTEM(S-EPA-DA)	4,031	2,280	1,596	-	-	155
CT133 - SYSTEMS UPGRADE (S-EPA)	24,068	23,744	324	-	-	-
UTILITY TACTICAL TRANSPORT HELICOPTERS (S-EPA)	1,183,524	958,999	37,967	73,177	70,955	42,426
REGION/SECTOR AIR OPERATIONS CENTRE PROJECT (S-EPA)	58,794	39,383	11,184	7,442	500	285
STRATEGIC AIRLIFT AIRCRAFT (S-EPA)	467,875	421,616	9,850	7,380	1,590	27,439
CF18 - INTEGRATED SUPPORT STATION (S-EPA-DA)	5,578	2,876	2,702	-	-	-
CF18- GROUND PROXIMITY WARNING SYSTEM (S-EPA)	8,914	7,879	1,035	-	-	-
HERCULES REPLACEMENT ACQUISITION (S-EPA)	103,555	92,555	11,000	-	-	-
AIR COMBAT MANOEUVERING RANGE INSTRUMENTATION (S-EPA-DA)	15,450	194	9,175	6,081	-	-
ADVANCED AIR-TO-SURFACE MISSILES (S-EPA)	102,935	84,488	11,473	3,017	-	3,957
8 AIR COMMUNICATION & CONTROL SYSTEM (S-EPA)	62,434	1,983	5,751	21,338	15,145	18,217
CANADIAN SEARCH AND RESCUE HELICOPTER - DEFINITION (S-EPA)	783,793	55,568	171,028	246,566	218,893	91,738
AIR FORCE SURFACE THREAT ELECTRONIC WARFARE TRAINING (S-EPA-DA)	24,264	8,389	11,271	23	-	4,581
AIR FORCE ENVIRONMENTAL CLOTHING STANDARDIZATION (S-EPA-DA)	10,530	6,082	2,497	1,900	-	51

PROJECT TITLE	Currently Estimated Total cost	Forecast Expenditures to March 31, 1999	Planned Expenditures 1999-00	Planned Expenditures 2000-01	Planned Expenditures 2001-02	Future Years Requirements
JOINT OPERATION AND CIVIL EMERGENCY PREPAREDNESS						
Construction						
Arnprior, Ontario CANADIAN EMERGENCY PREPAREDNESS COLLEGE	3,700	100	3,600	_	-	-
<u>Equipment</u>						
NUCLEAR BOLOGICAL AND CHEMICAL MASKS (S-EPA) NUCLEAR EMERGENCY RESPONSE TEAM (S-EPA-DA) JOINT COMMAND, CONTROL AND INTELLIGENCE SYSTEM (S-EPA)	31,723 6,143 18,111	31,483 5,940 9,198	240 153 7,000	- 50 -	- - -	- - 1,913
COMMUNICATION AND INFORMATION MANAGEMENT						
<u>Equipment</u>						
CENTRAL COMPUTATION PAY SYSTEM (S-EPA)	30,902	30,402	500	-	-	-
MATERIEL ACQUISITION AND SUPPORT INFORMATION SYSTEM (S-PPA)	6,752	5,298	1,454	-	-	-
INFORMATION TECHNICAL MANAGEMENT TOOLS (S-PPA-DA)	3,363	538	1,479	1,346	4 467	500
HIGH ARCTIC DATA COMMUNICATION SYSTEMI (S-EPA) DEFENCE MESSAGE HANDLING SYSTEM (S-EPA)	33,150 42,587	18,661 10,855	6,000 13,230	3,522 4,650	4,467 13,852	500
CLASSIFIED ELECRONIC KEY MANAGEMENT SYSTEM (S-EPA)	27,000	18,944	6,944	1,112	13,632	_
ITERIM ELECTRONIC WARFARE OPERATIONAL SUPPORT CENTER (S-EPA)	20,450	18,654	1,796	-	-	_
IONIZING RADIATION SAFETY (S-EPA-DA)	6,758	4,852	283	256	289	1,079
CABLE NETWORK MODERNIZATION ACROSS CANADA (S-EPA-DA)	7,367	6,968	399	-	-	-
DEFENCE DATA WAREHOUSE (S-EPA-DA)	1,441	-	741	700	-	-
VIDEOCONFERENCING SERVICES (S-EPA-DA)	3,561	2,299	1,262	-	-	-
ELECTRONIC DOCUMENT AND RECORDS MANAGEMENT SYSTEM (E-SPA)	3,714	2,376	1,339	-	-	-
INTEGRATED INFORMATION ENVIRONMENT DIRECTORY SERVICES (S-EPA-DA)	3,074	1,281	1,793	-	-	-
RESERVE INTEGRATED INFORMATION PROJECT (S-EPA)	76,424	75,208	1,216	-	-	-

PROJECT TITLE	Currently Estimated Total cost	Forecast Expenditures to March 31, 1999	Planned Expenditures 1999-00	Planned Expenditures 2000-01	Planned Expenditures 2001-02	Future Years Requirements
SUPPORT TO THE PERSONNEL FUNCTION						
Construction						
Kingston, Ontario CONSTRUCT RMC DORMITORY (S-EPA)	10,000	250	7,000	2,750	-	
Toronto, Ontario CFC QUARTERS (S-EPA)	8,000	1,500	6,500	-	-	-
MATERIAL INFRASTRUCTURE AND ENVIRONMENT SUPPORT						
Construction						
Montreal, Quebec FARNHAM RANGE - ST JEAN (S-EPA)	11,160	9,090	1,660	80	330	-
Ottawa, Ontario PEACEKEEPING MONUMENT (S-EPA)	2,220	2,150	70	-	-	-
Trenton, Ontario UPGRADE UTILITIES (S-EPA) RELOCATE CANADIAN PARA CENTRE (S-EPA)	6,250 16,000	1,750 14,090	1,500 1,910	1,500 -	1,500	-
Toronto, Ontario CONSOLIDATE CFB TORONTO (S-PPA)	28,000	200	12,000	15,800	-	-
Calgary, Alberta AREA SUPPORT UNIT CONSOLIDATION - IRP 95 (S-EPA)	5,510	540	4,960	-	-	-
Edmonton, Alberta RANGE & TRAINING AREA FACILITY (S-EPA)	7,890	7,650	60	60	60	60
<u>Equipment</u>						
CF SUPPLY SYSTEM UPGRADE (S-EPA)	289,313	181,000	57,717	50,596	-	-

Reserve Force

Role

The 1994 *Defence White Paper* defined the primary role of the Reserve Forces as augmentation, sustainment and support of deployed forces and, in some cases, for tasks that are not performed by Regular Forces. Within the Total Force concept, both the Regular and Reserve Forces support the ongoing peacetime tasks and activities of the Canadian Forces.

Description

As detailed in the *National Defence Act*, the Reserve Force is one of the three components of the Canadian Forces. The Reserve Force is composed of members who are enrolled for other than continuing, full-time military service. The sub-components of the Reserve Force are:

- the Primary Reserve
- the Supplementary Reserve
- the Cadet Instructors' Cadre
- the Canadian Rangers

The elements of the Primary Reserve are the Naval Reserve, the Militia, the Air Reserve, the Communication Reserve and approximately 250 positions assigned to the National Defence Headquarters Primary Reserve List.

The Supplementary Reserve is broken down into the Supplementary Holding Reserve and the Supplementary Ready Reserve which hold names of personnel who could be called if needed. Members of the Supplementary Reserve are not required to perform duty or training except when on active service. They provide a pool of personnel with previous military service who could be recalled in an emergency. Civilian specialists are also enrolled when there is a defined need.

The Cadet Instructors' Cadre, a subcomponent of the Reserve Force, consists of officers who have undertaken to perform such military duty and training as may be required of them, but whose primary duty is the supervision, administration and training of Sea, Army and Air Cadets. The Cadet Instructors' Cadre is the Reserve component of the Canadian Cadet Organization through which the Canadian Cadet Program is delivered. The financial requirements for the CIC are included in the CCO/CIC Corporate Account.

The Canadian Rangers is a sub-component of the Reserve Force which consists of volunteers who hold themselves in readiness for service but who are not required to undergo annual training. They are obliged to serve only when placed on active service. Rangers must be in good health and must be able to live effectively off the land. The

role of the Canadian Rangers is to provide a military presence in sparsely settled, northern, coastal and isolated areas of Canada which cannot conveniently or economically be covered by other elements of the Canadian Forces.

Primary Reserve

Naval Reserve

The Naval Reserve consists of 24 divisions located across Canada with its headquarters in Québec City, Quebec, and under command of the Chief of the Maritime Staff. The Naval Reserve authorized manning level is 4,000 to 5,000 personnel. The Naval Reserve mission is to provide Maritime Command with trained personnel for the manning of combat and support elements, within the Total Force, to meet Canada's naval defence objectives in peace, crisis and war. In addition, Naval Reservists are responsible for the manning of maritime coastal defence vessels, naval control of shipping, harbour defence, mine countermeasures, administrative and logistic support, and community and public relations by maintaining a naval presence throughout Canada.

Training for the Maritime Coastal Defence task includes coastal surveillance and patrol, and mine countermeasures activities such as route survey (ocean floor mapping), mechanical mine sweeping and seabed object inspections. The new Maritime Coastal Defence Vessels have a multi-role capability in coastal surveillance and defence including a limited mine countermeasures capability.

The Harbour Defence task provides for the defence of ports and anchorages and their immediate approaches in times of crisis. It includes provisions for port safety and security, harbour patrols and interdepartmental operations. The harbour defence organization consists of four units, two per coast. Each team is supported by a dive inspection team. Rigid hull inflatable boats are used to conduct the majority of harbour control activities.

The Naval Control of Shipping task provides a contingency capability to place merchant shipping under government control and, if necessary, provide naval protection. The Naval Control of Shipping organization consists of four regional teams, two per coast.

Militia (Army Reserve)

The Army Reserve, part of the Land Force Command's geographic area structure, is currently organized into ten Canadian Brigade Groups, under the command of the Chief of the Land Staff. The Brigade Headquarters are located in Vancouver, Calgary, Winnipeg, London, Toronto, Ottawa, Montreal, Québec City, Moncton and Halifax. The approximate current personnel planning level for the Army Reserve is between 18,500 and 20,000, with a total of approximately 135 units in over 115 different locations across the country, varying in strengths from 50 to 250 personnel.

The Army Reserve provides the capability to generate forces for the army and national level units, as and when required. The fundamental roles of the Army Reserve are to provide a framework for mobilization, to augment and sustain the regular component of the Army, and to serve as a the continuous link between the military and civilian communities. These roles are accomplished through augmentation of both trained individuals, as well as trained units of varying sizes, as situations dictate. With a relatively small Regular Army component, and a vast and sparsely populated landmass, the Reserve Army is also available for domestic and sovereignty operations. Reserve Army personnel are trained in a wide number of occupations and professions through a variety of institutions, including local, area and national schools across Canada. Outside of the Army Areas, senior Reserve Army personnel are located both at the National Army Headquarters in Ottawa and at the Land Force Doctrine and Training Systems Headquarters in Kingston.

Air Reserve

The primary role of the Air Reserve is to augment and sustain the regular air force. The Air Reserve provides support to the Air Force in ongoing peacetime tasks as well as deployed operations. In recent years, many Air Reservists have assisted in United Nations, NATO, and domestic operations, providing relief to regular force air and ground crews and support personnel. The Air Reserve has a planning level of 3,000 and the current strength is approximately 1,900 personnel.

The Air Reserve, which is commanded by the Chief of the Air Staff, is an integral part of the total Air Force. Air Reserve positions are fully integrated into the core processes at both National Defence Headquarters and 1 Canadian Air Division Headquarters. Most Air Force wings, squadrons and units are comprised of both Regular and Reserve personnel. Three flying squadrons are reserve-heavy with reserve force commanding officers – 402 Squadron in Winnipeg which is equipped with the Dash 8, 400 Tactical Helicopter Squadron in Borden and 438 Tactical Helicopter Squadron in St. Hubert which both fly the CH-146 Griffon helicopter. The Commanding Officer of the Contingency Capability Component is a Reserve position, and there is one reserve-heavy Airfield Engineering Squadron, in Bridgewater, Novia Scotia. The administration of Air Reservists is handled by Air Reserve Flights.

Most air environment and support occupations are available to reservists. The Air Reserve targets occupationally qualified personnel such as former members of the Regular Force, or civilian candidates whose qualifications equate to those of the required military trades. The Air Reserve also recruits unskilled candidates and ensures that all required occupational and military training is provided.

Communication Reserve

The role of the Communication Reserve is to:

- provide individual and subunit combat-capable information technology, information management and information operations augmentation and sustainment as detailed in the Canadian Forces Mobilization Plan
- provide information management services (component-specific tasked functions)
- provide the information technology, information management and information operations reserve component framework for mobilization, and
- provide a link between the Canadian military and civilian communities.

The annual average strength of the Communication Reserve is approximately 1,900 personnel. The Communication Reserve is currently organized into 23 units divided into five AOR Groups located as follows: 70 Comm Gp – Trenton, 71 Comm Gp – St. Hubert, 72 Comm Gp – Halifax, 73–74 Comm Gps – Edmonton, and the CF Information Ops Gp – Ottawa.

Training, to total force standards, and employment of the Communication Reserve, not including integral administration and logistical support, is based on a total of 1802 identified individual tasks. To this end, the Communication Reserve performs various operational tasks on a full time and part time basis which include:

- individual augmentation to United Nations missions
- operational theatre deployments
- domestic operations of the National Command and Control Information System
- assignments to the Army Signals units and troops
- information management tactical support to the Militia, and
- manning Navy Transportable Tactical Command Centres.

All units are involved in the provision of Information Management services on a part time basis throughout the year, and, current and forecast, full-time annual employment s involves approximately 280 personnel year-round and 1,340 during the peak summer training period.

The Communication Reserve is a readily available resource made up of dedicated personnel, which has made a positive contribution to the operational demands placed upon the Canadian Forces.

The Canadian Rangers

The Canadian Rangers is a subcomponent of the Reserve Force and is organized into patrol groups and patrols. Operational control is assigned on a geographical basis to Land Force Command and Canadian Forces Northern Area. Land Force Command has delegated control of the patrols down to the Area Headquarters, which are responsible for domestic operations. Canadian Ranger patrols are located across the country and can be found in British Columbia, Yukon, the Northwest Territories, Alberta, Manitoba, Ontario, Quebec and Newfoundland. Rangers usually function as individuals and, in conjunction with their civilian occupations they report any suspicious or unusual activities in their respective areas and collect detailed information concerning their local area which may be of assistance in their other tasks, or of value to the Canadian Forces. These tasks are generally performed without pay. The appropriate rate of Reserve pay is paid for local training exercises, ground search and rescue and participation in other Canadian Forces exercises where they act as guides, advisors and survival instructors.

Resource Summary

The Reserve Force provides funding to other activities in addition to the support of the Reserve elements. This includes the Ceremonial Guard, the Canadian Forces Small Arms Competition, and the Compagnie Franche de la Marine. It should also be noted that the Reserve Force pay structures, pay levels and benefits are different from those of the Regular Force. The Reserve Force member earns approximately 85% of the salary of a Regular Force counterpart. Additionally, at present there is no pension plan in place, for either full- or part-time Reservists; however upon government approval to proceed, we will investigate the options of a such a plan for Reservists.

Primary Reserve Full Cost Estimate

The Primary Reserve accounts for approximately 8.6% of the total Defence Services Program. The expenditures are divided into four categories: direct, indirect, attributed and capital. This method of reporting is intended to provide greater clarity on the makeup of the total costs of the Primary Reserve.

Direct operating expenditures include funds specifically budgeted for the Primary Reserve such as pay, travel and goods and services which are locally procured.

Indirect operating expenditures reflect the Primary Reserve share of departmental resources, which are controlled centrally. Included are ammunition, equipment operating costs, clothing and the cost of maintaining facilities such as armouries.

Attributed expenditures are departmental overhead costs, which are allocated, for reporting purposes, to all activities including the Primary Reserves. In reality, these costs do not vary directly as a function of activity and would largely be incurred whether the Primary Reserve existed or not.

Capital expenditures are shown for the year in which payments have been made, and do not reflect an amortization of cost over the life of the asset. The capital expenditures can vary significantly from one year to the next, depending on priorities established within the capital equipment plan.

Total Primary Reserve Expenditures (\$000)1996-97 1997-98 1998-99 Actual Actual Actual Type of Expenditure **Expenditures Expenditures Expenditures** Reserve Pay 214,647 260,986 259,647 Regular Support Staff 101,612 106,826 118,838 Reserve Operating Budgets 27,927 28,123 26,876 **Subtotal Direct** 344,185 395,935 405,361 31,133 Ammunition 26,207 24,888 **Equipment Usage** 59,704 78,601 57,779 Clothing 17,941 18,276 22,914 Facility Operating 28,831 29,414 30,339 Subtotal Indirect 137,609 152,498 135,920 Base Support 103,673 94,845 99,800 Training 4,644 5,452 4,863 **Subtotal Attributed** 108,316 99,708 105,252 **Subtotal Primary Reserve** Operating 590,110 648,141 646,534 **Dedicated Capital** 54,137 34,413 59,488 **Shared Capital** 300,956 266,534 95,642 **Subtotal Capital** 355,093 300,947 155,130 **Total Primary Reserve Costs** 945,204 949,088 801,663

^{*} revised

Canadian Cadet Program

Objective

The objective of the Canadian Cadet Program is to develop in young men and women the attributes of good citizenship and leadership, promote their physical fitness and stimulate their interest in the sea, land and air activities of the Canadian Forces.

Mandate

The Canadian Forces, in accordance with Section 46 of the *National Defence Act*, control and supervise the Canadian Cadet Organizations (Royal Canadian Sea Cadets, Royal Canadian Army Cadets and Royal Canadian Air Cadets) in implementating the Cadet Program. In carrying out this responsibility, the Canadian Forces take into account the known policies and objectives of the Cadet Leagues and local sponsors and co-operate with them to the fullest extent possible.

Management Principles and Key Initiatives

While respecting the mandate and capabilities of all partners, the management structure and practices will be based on service, empowerment, innovation and accountability. To this end the Canadian Cadet Program:

- promotes consultation, communication, participation and innovation as the foundation of our leadership and human resource management practices
- delegates increased authority and permit greater managerial flexibility at all levels, balanced by attendant accountability for results and the manner in which they are achieved
- encourages innovative decision-making and accepts increased risk management, guided by the values of good citizenship and the military ethos
- fosters continuous improvement in results and efficiency, and promotes a service orientation in accomplishing the tasks
- adopts accountability-oriented planning and resource management that link objectives and activities with resources, make costs visible, and identify results achieved, and
- fosters more cost-effective and competitive activities by confirming value-added practices, exploring service delivery options, considering commercial standards and giving users of internal services increased choice and responsibility.

Vision

The Canadian Forces, working with the other stakeholders, embrace:

- a results-oriented and cost-effective Canadian Cadet Program that makes optimum use of entrusted resources to achieve program aims
- a dynamic, innovative Canadian Cadet Program committed to excellence, continuous improvement and mutual respect, and
- a culture that is responsive to change and restraint, reflects the values of Canadian society and meets the needs of the Canadian Cadet Organization Structure and Roles.

Organization for Delivery

The Canadian Cadet Program is one of the federally sponsored national youth training programs for 12- to 18-year-olds and is conducted in partnership with the Navy League, Army Cadet League and Air Cadet League, which provide local sponsors for each corps or squadron. The Canadian Forces provide Regular Force and Primary Reserve support and the Cadet Instructors' Cadre, who are members of the Reserve Force charged with the supervision, administration and training of cadets.

There are approximately 60,000 Canadian youth in the Cadet Program who benefit from the training provided. They are organized into approximately 1,112 cadet corps or squadrons, 610 cadet bands, 27 Cadet Summer Training Centres and various gliding, sailing and land training schools and centres located across the country.

Resource Summary

The funding allocation to the Canadian Cadet Program amounts to approximately \$111 million, or less than 1% of the total Defence Services Program. These figures include funds received through the Government Youth Initiatives.

National Defence Cadet Program Expenditures

(\$000)	Actual	Actual	Forecast	Actual
, ,	1996/97	1997/98	1998/99	1998/99
Personnel	48,110	56,987	61,759	63,768
Operating	46,933	48,351	47,897	52,729
Sub-total	95,043	105,338	109,656	116,497
Grants	615	615	615	646
Capital	1,195	858	655	2,795
TOTAL	98,853	106,811	110,926	119,938

Performance Accomplishments

All cadets benefited from the Local Headquarters training program (training within the community) conducted from September through May, and nearly 23,000 of these cadets attended summer training courses, participated in leadership roles as staff cadets during summer training, and participated in international exchanges. This past year saw the incorporation of the Reserve Get-Well Package and the introduction of the Government Youth Employment Strategy, which resulted in more funding being allocated to the Cadet program. With this investment we are making a significant contribution to the learning and career opportunities of young Canadians. For further information on the Youth Employment Strategy, visit <www.youth.gc.ca>.

We have also made investments in the future development of the Cadet Program through the establishment of the Rocky Mountain National Army Cadet Summer Training Centre, located near Cochrane, Alberta. After 50 years of successful training at Banff, Alberta, the Cadets relocated their activities in support of the Heritage Canada National Parks Development Program, which seeks to revitalize Banff National Park's Bow Valley Area. Consequently, the cadets will begin their training at the Rocky Mountain training centre.

We have enjoyed a long and successful tradition of cadet units north of the 60th parallel since the inception of the first army cadet unit in Dawson, Yukon Territory, in 1902. This past year saw this tradition continue with a new Royal Canadian Army Cadet Corps being formed in Pond Inlet, Nunavut, with over 100 cadets. This is brings the total number of cadet corps in Nunavut to 11 and the total number north of the 60th parallel to 24. These organizations provide a dynamic and structured activity for youth in northern Canada.

To assist with the long-term planning for the organization, the Cadet Program Strategic Guidance was developed outlining key issues, corporate goals, priorities, special initiatives and available resources. It covers a five-year planning period to reflect the multi-year impact of new initiatives and long term goals. In its efforts to deal with current and anticipated challenges, the Canadian Forces and the Cadet Leagues have embarked on a renewal process to ensure that they continue to offer vibrant and attractive training programs well into the twenty-first century. The study and implementation of the recommendations produced by the strategic review, as part of the renewal process, will constitute a major undertaking and will incorporate a review of many of the existing issues and procedures.

Junior Canadian Rangers Program

The objective of the Junior Canadian Rangers Program is to provide a structured youth program, which promotes traditional cultures and lifestyles in remote and isolated communities of Canada. The criteria for the establishment of a Junior Canadian Rangers patrol are dependent on are the presence of a Canadian Ranger patrol, the absence of a Cadet unit in the community and significant community support.

Mandate

The Canadian Forces, in accordance with section 46 of the *National Defence Act*, control and supervise the Junior Canadian Rangers, which are formed as a cadet organization, and ensure the implementation of the Junior Canadian Rangers Program. In carrying out this responsibility, the Canadian Forces take into account and co-operate with the local, regional, provincial or territorial and federal agencies involved in the Program to the fullest extent possible.

Management Principles

While respecting the mandate and capabilities of all partners, the management structure and practices are based on service, employment, innovation and accountability. To this end the Junior Canadian Rangers organization:

- promotes consultation, communication, participation and innovation as the foundation of our leadership and human resources management principles
- delegates increased authority and permit greater managerial flexibility at all levels,
 balanced by result-based accountability and the manner in which they are achieved
- encourages innovative decision-making processes and accepts risk management, guided by cultural values, good citizenship and military ethos
- fosters continuous improvements in results and efficiency, while promoting a service orientation in accomplishing the task
- adopts accountability-oriented planning and resource management that link objectives and activities with resource, make costs visible, and identify results achieved, and
- fosters more cost-effective and competitive activities by confirming the value added practices, exploring service delivery options, considering commercial standards, and giving users of internal services increased choices and responsibility.

Structure and Roles

The Junior Canadian Rangers Program is one of two federally sponsored national youth programs (the other being the Canadian Cadet Program) in Canada. The program is conducted in partnership with local and regional adult committees composed of community members. The support of the community is the cornerstone of the Junior Canadian Rangers Program. The participants, leaders and resources for the program are drawn from the local area, with the focus of all training and activities being local practices and customs. The Canadian Forces provide financial and administrative support the program. Training is validated regularly by Canadian Forces personnel during visits and field exercises.

Performance Expectations

There are currently approximately 900 Junior Canadian Rangers who benefit from the training given in remote and isolated communities across the country. Junior Canadian Rangers patrols are located in the Yukon, Nunavut, the Northwest Territories and in Northern Ontario and Quebec. The training fosters good citizenship, community responsibility, leadership, personal health and welfare, and self-esteem in the Junior Canadian Rangers, thereby building a stronger, healthier community for all.

Resource Summary

Funding allocations for the Junior Canadian Rangers Program amounts to a total of \$2,423,000 (\$323,000 allocated by the Department of National Defence, \$300,000 allocated by Human Resources Development Canada and \$1,800,000 allocated through the Youth Initiatives). The summary below outlines how the funding was allocated:

(\$000)	Actual 1998-1999	Forecast 1999-2000
Personnel	\$620	\$1,087
Operating	\$876	\$1,334
Capital	\$727	\$520
Total	\$2,423	\$2,921

As an indication as to the popularity of this program with the youth of these areas, over the past year 12 Junior Canadian Ranger Patrols were established. This raises the current total to 33. These patrols will be expanded in response to requests from communities. With the continued support of the funding received from the Youth Initiatives, we hope that 20 will be established over the coming year.

Sustainable Development Strategy



As its contribution to the Government's vision of sustainable development, commitments to improve the Department's environmental performance were made in its first sustainable development strategy, *Environmentally Sustainable Defence Activities*, published in December 1997 and available on the Web at

http://www.dnd.ca/admie/dge/asd/sds1_e.htm. Our commitments are to address major issues related to ecosystems, pollution prevention, hazardous materials, climate change, and cultural resources by achieving 22 measurable multi-year targets. The Department's action plan includes building its environmental performance capacity through the application of three principles (stewardship, appropriate skills and knowledge, partnership) and implementation of a formal environmental management system. This 1998-1999 fiscal year report to Parliament shows department-wide results for the first full year of implementation, based on reports at the departmental, Service Line, and site (Canadian Forces base or operating unit) levels.

During 1998-1999, we began implementing the action plan, confirmed individual responsibilities, provided functional guidance, developed a reporting protocol, targeted funding, and compiled results. Reporting units affirmed that they are using the three principles to build capacity for better performance and have provided information on progress made on the 22 targets. Further work is required to identify baseline data and improve information management systems. In accordance with ISO 14000 standards, documentation of procedures for environmental management systems has begun at the departmental level and in most service lines. Our efforts for next year will focus on gaps in implementation and reporting and preparing the next strategy, to be tabled in 2000.

Results for Sustainable Development Strategy Targets

A.1.1. Training Area Management (TAM) plans

TAM plans have been initiated at 12 of the 13 selected training areas specified in the SDS, providing direction for the protection of rare and endangered species, wetlands, and critical habitats. The target has been largely achieved.

A.2.1. Natural Resource Management (NRM) plans

NRM plans have been prepared in conjunction with TAM plans at 12 of the 13 selected training areas, providing direction for the protection of rare and endangered species, wetlands, and critical habitats, as well as sustainable resource use. The target has been largely achieved.

A.2.2. Pesticide use

With 48% of sites reporting, about 9 tonnes of pesticides and 7,400 L of liquids of unspecified strength were used in FY98/99. Usage in FY 93/94 (the baseline year) is not currently available. Pesticide use is believed to be down as a result of consolidation, downsizing, and use of new products. Better records are needed to confirm the trend over time.

A.3.1. Planning tool for noise

The airfield noise module has been developed and will be tested in 1999; the impulse noise module, for artillery, detonations, and small arms, is being developed; the last noise module, for helicopters, will be started in 2000.

B.1.1. Treated water consumption

With 74% of sites reporting, 23.5 billion litres of water were used in FY 98/99, extrapolated Department-wide to an estimated 32 billion litres. DND/CF usage in FY 89/90 (the baseline year) was 60 billion litres. Water use is down 45% as a result of consolidation, downsizing, and conservation. This exceeds the 20% reduction target by a factor of two.

B.2.1. Solid waste sent to landfill

With 35% of sites reporting, about 12,900 tonnes of waste were sent to landfill in FY 98/99. Waste sent to landfill in FY 97/98 (the baseline year) could not be estimated. Solid waste generation is believed to have declined substantially as a result of consolidation, downsizing, and recycling.

B.2.2. Construction and demolition projects with floor area exceeding 2,000 m²

Fourteen (82%) of the 17 projects that were reported in FY 98/99 incorporated waste reduction plans. Additional information is needed to ensure that future reports cover all projects which meet the criteria.

B.3.1. Liquid and solid waste streams from ships

In FY 98/99, 40% of ships requiring new treatment systems were refitted, making 76% of the fleet now compatible with applicable standards. Development of ships' environmental management systems has also contributed to this success.

B.3.2. Sewage treatment plant (STP) and storm sewer discharges

Monitoring showed that four of seven STPs (57%) operated within applicable standards over 85% of the time in FY 98/99; two STPs (29%) were within standards over 50% of the time; and one STP (14%) operated outside of standards. Additional information is needed to evaluate the status of storm sewer discharges.

C.1.1. High-risk hazardous materials

DND/CF has identified 106 products used by the Department that present a high risk. In FY 98/99, 55 of these (52%) were eliminated from the departmental catalogue. This result exceeds the 5% reduction target by a factor of ten.

C.1.2. Polychlorinated biphenyls (PCBs)

Across DND/CF, 9 tonnes of PCB solids and 2,000 litres of liquids were removed from service in FY 98/99, of which 77% of solids and 100% of liquids were sent for destruction. The target to send PCBs for destruction as they are phased out was largely achieved for FY 98/99.

C.1.3. Hazardous waste sent for disposal

With 63% of sites reporting, 430 tonnes of hazardous solid waste and 1.7 million litres of liquid waste were sent for disposal in FY 98/99. The target, a trend over time, will be demonstrated using data from future years.

C.1.4. Fuel storage tanks

The departmental database showed the following numbers of tanks registered in accordance with federal regulations:

Calendar 1998	endar 1998 Tanks Tanks in complianc registered with federal guideli		Talling her his compliance	Tanks to be upgraded in 1999	Tanks to be upgraded in 2000
Above-ground	2395	1617	778	330	110
Underground	851	449	402	20	70

C.2.1. Contaminated sites

With over 75% of sites reporting, 927 contaminated sites have been identified. Eighty-two (9%) contaminated sites were remediated in FY 98/99, and a further 201 (22%) contaminated sites are being risk-managed.

C.3.1. Spills

With returns from 84% of sites, DND/CF had 535 reportable spills in FY 98/99, releasing 828,000 litres of material. The SpillNet information system, recently operational, now provides for reporting by hazard class. The target, a trend over time, will be demonstrated using data from future years.

D.1.1. Products and equipment containing ozone-depleting substances (ODSs)

The departmental inventory showed that 62 tonnes of refrigerants are known to be in service in buildings in FY 98/99. Plans to begin removing these materials from service are in development.

D.1.2. Releases of ozone-depleting substances (ODSs)

During calendar year 1998, 87% of sites reported 124 releases of ODSs involving 3 tonnes of material with an ozone-depleting potential (ODP) of 16.4 tonnes. Halon accounted for 52 of these releases, involving 1.3 tonnes of material and an ODP of 13.5 tonnes. The target, a trend over time, will be demonstrated using data from future years.

D.1.3. Halon use

The departmental inventory showed DND/CF now has only 2.6 tonnes of Halon remaining in infrastructure, with 27.2 tonnes of Halon removed from infrastructure in FY 98/99. The target to limit Halon use to essential military requirements has been largely achieved.

D.2.1. Vehicles

In calendar year 1998, departmental records for the 1,970 vehicles in the commercial fleet showed an average fuel consumption of 14.4 litres per 100 km. Over 41 million km were driven, consuming almost 6 million litres of fuel.

D.2.2. Energy consumption in infrastructure

Reports showed that about 75% of infrastructure used 10.5 million gigajoules (GJ) in FY 98/99, extrapolated Department-wide to 14.0 million GJ. Use in FY 89/90 (the baseline year) was 16.3 million GJ. Consumption is down 14% as a result of consolidation, downsizing, and conservation. This result closely matches the 15% reduction target.

E.1.1. Cultural and heritage sites, artifacts, and monuments

Direction for protection of cultural and heritage sites, artifacts, and monuments is included in TAM plans initiated at 12 of the 13 selected training areas. The target to incorporate these resources in TAM plans has been largely achieved.

E.2.1. Heritage buildings

Based on limited reports, 10 out of 53 of heritage buildings (19%) are at constant or improving Facility Condition Index (FCI). Work continues toward establishing the FCI for each DND/CF building.

National Search and Rescue Program

Executive Director's Message

Canada boasts one of the most effective national search and rescue programs in the world despite the challenges posed by its vast size, expansive ocean areas of responsibility, varied terrain and harsh climate. Canadian search and rescue (SAR) is founded on co-operation, expertise and complex multi-jurisdictional partnerships.

The report on plans and priorities for 1998-1999 called for three general results.

Result 1: A cohesive and efficient National Search and Rescue Program by

- working towards closer ties with non-federal counterparts
 - Joint federal/non-federal meetings were held and agreement reached on the need to continue to discuss mutual problems and seek multi-jurisdictional solutions. It was agreed that the NSS could act as the central co-ordinator for these activities.
 - Almost all provinces and territories have accepted the SAR Training Standards developed by provincial/territorial training experts through NSS facilitation.
- identifying performance information required to manage the SAR program as a cooperative endeavour and making this information accessible to Canadians
 - This activity is holding, pending agreement on a National Vision and Objectives for the National SAR Program. Non-federal, input, acceptance and support is required before proceeding. A federal vision and objectives will be developed first.
- improving comptrollership under the New SAR Initiatives Fund (NIF)
 - Management of the fund was reviewed and several improvements were recommended. Improved procedures will be implemented as resource levels and efficiencies permit.
 - In F/Y 98/99 96 NIF projects were funded, 46 of them new, and 59 were completed.
 - In F/Y 98/99 seven NIF projects supported partnership activities with NGOs.
- developing an improved prevention program
 - An interagency Prevention Working Group has been established, Chaired by the NSS with a Vice-Chair from Parks Canada. A Vision and Objectives for a National Prevention Program have been agreed upon.
 - The Working Group agreed on the need for a Prevention Information System.
 - NIF Prevention proposals are improving and now follow the procedures recommended by the Prevention Working Group.

Result 2: Effective information and tools by

- collecting data on SAR incidents to help improve program development and decision making capabilities
 - Significant progress has been achieved in getting the RCMP, OPP, SQ and the Royal Newfoundland Constabulary to standardize their SAR data collection and to send it to NSS.
- using the newly created single Canadian Beacon Registry and disseminating information to stakeholders
 - The Beacon Registry continued to register data on ELTs, EPIRBs and PLBs and provide this information to the Canadian Mission Control Centre. Registry personnel also answered hundreds of calls and provided information on beacon use and registration.

Result 3: Influential national and international partnerships by

- Co-ordination and focus on an improved SAR vision and objectives
 - The Review on Intergovernmental Cooperation and led ICSAR to agree that improvements in interdepartmental co-ordination were needed together with increased accountability. Part of this exercise will be the agreement on a new vision and objectives for federal SAR.
 - The need for a truly national SAR vision, that would have non-federal agreement and buy-in, is understood, and provincial and territorial input will be solicited.
- supporting Canadian COSPAS-SARSAT initiatives
 - The Executive Director of the NSS accepted the Chair position on the COSPAS-SARSAT Council, and facilitated the incorporation of geo-stationary satellites into the program, and the transition arrangements for the COSPAS-SARSAT Secretariat when INMARSAT privatized.
 - NSS continued to support COSPAS-SARSAT policy development through participation in working groups, committees and the council. In addition, the NIF funded two initiatives to improve the Canadian COSPAS-SARSAT ground segment.
- continuing to hold annual SARSCENE workshop and tradeshow and expand its scope to include international partners for better exchange of SAR information and expertise
 - The SARSCENE workshop at Banff in October 1998 had the highest attendance to date with 639attendees (59 foreign), 50 trade show exhibits and 88 information sessions.
 - Four issues of SARSCENE magazine were published, circulation 12,500, to share information and awareness of the various components of Canadian SAR.
 - Mr. Harry Strong, CEO of the Canadian Coast Guard Auxiliary won the NSS
 Outstanding SAR Achievement Award and 12 other organizations received
 Achievement Certificates in recognition of their exceptional contribution to SAR in
 Canada.

A summary of SAR personnel requirements and program costs follows.

National Search and Rescue Program

Figure 1: Details of Personnel Requirements by Departments (FTEs)

	Actual	Actual	Actual	Estimates	Planned	Planned
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
National Search and Rescue Secretariat	15	15	15	16	18*	18
Parks Canada Agency	67	64	67	67	67	67
Environment Canada	14	14	14	14	14	14
Department of Fisheries and Oceans	817	815	815	815	815	815
Department of National Defence	776	750	751	751	746	746
Transport Canada	7	7	7	7	7	7
Total	1,696	1,665	1,669	1,670	1,667	1,667

Figure 2: Costs (\$000) for National Search and Rescue Program

		•			
Actual	Actual	Actual	Estimates	Planned	Planned
1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
12,582	12,318	9,277	10,146	10,346	10,346
4,961	4,542	4,929	4,929	4,929	4,929
985	985	985	985	985	985
128,198	91,374	71,771	106,292	106,292	106,292
113,552	98,631	158,412	239,082	299,857	299,857
875	873	885	895	905	915
261,153	208,723	246,259	362,329	423,314	423,324
	1996-97 12,582 4,961 985 128,198 113,552 875	1996-971997-9812,58212,3184,9614,542985985128,19891,374113,55298,631875873	1996-971997-981998-9912,58212,3189,2774,9614,5424,929985985985128,19891,37471,771113,55298,631158,412875873885	1996-97 1997-98 1998-99 1999-00 12,582 12,318 9,277 10,146 4,961 4,542 4,929 4,929 985 985 985 985 128,198 91,374 71,771 106,292 113,552 98,631 158,412 239,082 875 873 885 895	1996-971997-981998-991999-002000-0112,58212,3189,27710,14610,3464,9614,5424,9294,9294,929985985985985985128,19891,37471,771106,292106,292113,55298,631158,412239,082299,857875873885895905

^{*}Note: The NSS has acquired the services of one officer for 1999/2000 and will likely require two more from 2000 onward. Formal application and justification for these positions has not yet been accomplished.

Emergency Preparedness Canada

Emergency Preparedness Canada (EPC) is the federal government's primary agency through which it seeks to achieve an appropriate level of civil emergency preparedness in Canada. EPC derives its mandate principally from the *Emergency Preparedness Act* and A Federal Policy for Emergencies, and has as its mission to safeguard lives and reduce damage to property by fostering better preparedness for emergencies in Canada. The overall program objective is to contribute to, and ensure, an adequate and reasonably uniform level of emergency preparedness throughout Canada.

Although EPC has a mandate to stimulate, encourage and co-ordinate emergency planning by other federal departments/agencies and at other levels of government, organizations other than EPC are ultimately responsible for completed emergency plans and emergency response operations. Consequently, measures of EPC's performance necessarily focus on the range and extent of its interactions, its development of various tools, exercises and training packages to assist the various stakeholders in the development of emergency plans in Canada and abroad.

Within this environment, EPC supports the Emergency Preparedness, Humanitarian Assistance and Disaster Relief objective by furthering preparedness for emergencies and administering disaster financial assistance.

Achievements during the reporting period included the following:

- EPC focused its attention on preparations for the transition to the new millennium and EPC supported the federal government's response to Y2K challenges as part of the National Contingency Planning Group's Y2K efforts. Activities in this regard were focused on the development of organizational structures, procedures and processes that would be required in managing the response to a Y2K-related emergency.
- In conjunction with the Insurance Bureau of Canada, EPC set the stage and was a key force in the preparation for, and conduct of five Regional Mitigation Workshops and a National Mitigation Conference.
- EPC completed work on a four-year project to develop a prototype of the Natural Hazards Electronic Map and Assessment Tools Information System (NHEMATIS) which is comprised of an electronic natural hazards map and a series of risk assessment/search and query tools for distribution to EP professionals. NHEMATIS along with a Technical Manual and a Users Guide is available through EPC.
- Under the leadership of EPC, the tri-lateral, digitally based, electronic North
 American (Canada, United States and Mexico) Natural Hazards and Disaster Map
 was published in the July 1998 English and Spanish editions of the National
 Geographic magazine, along with an article on natural hazards. EP awareness has
 been enhanced in the three NAFTA countries through the distribution of 15 million
 copies of this publication. A French version was subsequently printed by EPC, in

partnership with the National Geographic Society, Natural Resources Canada and Environment Canada.

- The five-year Federal-Provincial-Territorial Strategy for Training in emergency Preparedness and Response concluded in March 1999, resulting in the provinces and territories assuming more responsibility for basic and entry-level courses. EPC's Canadian Emergency Preparedness College specialized in the delivery of advanced and specialist level training, including a Business Resumption Planning course to assist federal departments in their preparations for the Y2K.
- EPC was also instrumental in the development of the Canadian Emergency Preparedness Association. It was formally established in FY 1998-1999 to provide a new national forum for the discussion and dissemination of information; the promotion of better knowledge, understanding and co-operation in emergency preparedness in Canada; and the development of national standards and a nationally-consistent certification process of emergency preparedness practitioners. A membership drive has been launched within the EPC community across Canada.
- EPC administered Grants and Contributions programs in FY 1998-1999 to encourage emergency preparedness and response activities and assist in the recovery from emergencies and disasters. In particular, under the Disaster Financial Assistance Arrangements, payments in excess of \$359 million were issued to the provincial/territorial governments to assist them with the cost of dealing with disasters. In addition, through the cost-shared Joint Emergency Preparedness Program, the federal government, in consultation and co-operation with provincial and territorial governments, contributed in excess of \$4.3 million to projects designed to enhance the national emergency response capability.

The ultimate result of these and other activities is a state of emergency preparedness in Canada that addresses, in part, Canadians' expectations with respect to their safety and security. The best measure of the state of emergency preparedness in Canada is, of course, what happens when major emergencies occur. While Canada was fortunate not to experience emergencies during 1998-1999 on the scale of the 1997 Manitoba Flood or the 1998 Ice Storm, the ongoing refinement of the emergency plans throughout the reporting period, along with other initiatives, has advanced the state of civil emergency preparedness in Canada. These measures are expected to enhance the ability to safeguard lives and reduce damage to property as EPC works through the National Contingency Planning Group in fiscal 1999-2000 to prepare for any Y2K-related emergencies.

Communications Security Establishment and the National Cryptologic Program

Agency Overview and Mandate

The Communications Security Establishment (CSE) is an agency of the Department of National Defence. CSE was established in 1946 and became part of the Department of National Defence in 1975. As Canada's national cryptologic agency, the CSE forms part of the intelligence and security infrastructure supporting the Government of Canada. In this capacity, it accomplishes its mission through two distinct but related cryptologic program components – signals intelligence and information technology security.

Signals intelligence is the collection and study of, and the production of intelligence reports from, foreign radio, radar and other electronic emissions. Signals intelligence provides unique and timely information on the intentions, capabilities and activities of foreign states, organizations or persons. This intelligence is used by policy makers to resolve issues relating to the defence of Canada or the conduct of its foreign affairs. The CSE receives assistance in the conduct of signals intelligence activities from the Canadian Forces Informations Operations Group which operates from a number of stations in Canada.

The Information Technology Security Program's mission is to deliver solutions which help the federal government achieve an appropriate level of security for its telecommunications and automated information systems. The CSE helps to protect the Government's sensitive information assets and the privacy of citizens. In addition, the Information Technology Security program, through its association with industry, contributes to the development of a national information technology security capability that provides employment at home and export opportunities abroad. To fulfil its mandate, this program has five specific objectives:

- to furnish advice, guidance and services to the Government on the planning, acquisition, installation, and procedures for use of secure communications systems
- to supply cryptographic keying material, devices and documentation
- to conduct research, development and evaluations on the security aspects of automated information and communications systems, with a view to advising clients on the security of these systems and their application in Government
- to advise and guide Canadian industry in developing secure communications and electronic data processing systems for government requirements, and
- to provide advice, guidance and services for the protection of the security and privacy interests of Canadians in the transactions of electronic commerce.

Annex G Communications Security Establishment and the National Cryptologic Program

Accountability

The Minister of National Defence is answerable to Parliament for all the CSE activities. The Minister approves capital spending for the CSE and major spending recommendations made to Treasury Board. The Minister also approves the CSE's key policy initiatives and is responsible for CSE-related issues in Cabinet.

Two Deputy Ministers, the Deputy Secretary to Cabinet for Security and Intelligence in the Privy Council Office and the Deputy Minister of National Defence, are responsible for ensuring that the Minister is fully informed of the CSE's activities. The Deputy Secretary is accountable for the CSE's policy and operations, and the Deputy Minister of National Defence is accountable for administrative matters affecting the CSE.

The Communications Security Establishment responds to foreign intelligence priorities approved by Ministers. As well, the Communications Security Establishment responds to specific event-driven intelligence needs of government departments.

Communications Security Establishment's Resource Profile

(thousands of \$)	Actual FY 96/97	FTE 96/97	Actual FY 97/98	FTE 97/98	Actual FY 98/99	FTE 98-99
Salary and Personnel	57,680	870	57,183	892	49,417	890
Operations and Maintenance	20,637		18,729		24,875	
Total Operating Requirement	78,317		75,912		74,211	
Capital	38,832		38,340		25,541	
Total Requirement	117,149	870	114,252	892	99,752	890

Legislation and Regulations Administered

The Minister of National Defence is assigned relevant responsibilities in the administration of the following Acts:

- Aeronautics Act
- Army Benevolent Act
- Canada Elections Act (under the general direction of the Chief Electoral Officer, the Department of National Defence administers the Special Voting Rules, Schedule II to the Act, as they relate to Canadian Forces electors)
- Canadian Forces Superannuation Act
- Defence Services Pension Continuation Act
- Emergencies Act
- Emergency Preparedness Act
- Garnishment, Attachment and Pension Diversion Act
- National Defence Act
- Pension Benefits Division Act (with respect to members and former members of the Canadian Forces)
- Visiting Forces Act
- Fisheries Act
- Department of Public Works and Government Services Act
- Canadian Environment Assessment Act
- Canadian Environment Protection Act
- Auditor General Act
- Official Languages Act
- Employment Equity Act

Recognizing Our People

The Deputy Minister and the Chief of the Defence Staff annually recognize the professionalism of our Defence Team. The following men and women have demonstrated particularly effectively the proud commitment we have in serving all Canadians.

Donna Billard

Secretary, Directorate of Cabinet Liaison

As the secretary of the Directorate of Cabinet Liaison and Finance/ Supply Officer, and later as the Administrative Officer for the National Defence Headquarters United Way/Health Partners Campaign, her performance has been exemplary.

John MacDonald

Corporate Services, 12 Wing Shearwater

In recognition of his leadership in fostering a milieu of change and renewal coupled with excellence in client service for the facilitation of Air Force, 12 Wing Shearwater and Formation Halifax reengineering initiatives

Gaetan Perron

Resource Manager, Canadian Forces Fire Service

In recognition of the remarkable dedication and unflagging energy he has displayed in order to improve fire safety standards within the Department of National Defence and the Canadian community as a whole.

Rosemary Driscoll

Base Information System Consultant, CFB Petawawa

In recognition of exemplary dedication and outstanding performance during the planning and execution of operation reconfiguration, a national level operation. Her constant effort, dedication and vast job knowledge were noted by all involved with planning of the operation.

Jocelyn Keough

Secretary, Canadian Forces Provost Marshal

Has demonstrated, through her 22 years of service, the highest level of loyalty and professionalism possible. She exemplifies the qualities of allegiance, and selflessness and carries these through her day to day tasks as well as through her regular charitable work.

Sharon O'Brien

Personnel Officer, Civilian Personnel Service Centre

In recognition of her outstanding efforts as the CPSC(A) CPO of 5 Wing Goose Bay from June 1997 to October 1998. She was instrumental in ensuring that comprehensive human resources services were provided to managers and employees faced with unique and challenging circumstances and issues.

Josette Pelletier

Director, Translation Bureau, ADM (Pol)

In recognition of her exemplary work, her dedication and her unwavering professionalism. Under her direction, the translation bureau has produced a prodigious quantity of translations of consistently superior quality for the Minister and senior management.

Sqt André Bolduc

Chief of the Air Staff System Manager, Air Review and Corporate Services In recognition of his exceptional achievement in the field of information technology/information management in the building of a new NT Local Area Network for the Chief of the Air Staff and for his outstanding contribution above and beyond the call of duty to the maintenance and well being of that system.

Hélène Sirois

Information Technology Specialist 3 Canadian Support Group In recognition of her exemplary leadership, of her immense expertise with respect to computers and networks, and her limitless dedication.

Brigadier-General Pierre Sénécal (Retired)

Conservator of the Citadelle de Québec Museum Citadelle de Québec For his efforts to enhance the prestige of the Citadelle de Québec and for the changes he has made to the museum. By means of sound marketing operations, he opened the doors of the Citadelle to the outside world and raised the profile of this unique fortress.

Morrie Evans

General Manager Operations Canadian Forces Housing Agency In recognition of an outstanding contribution to the success of the implementation of the Canadian Forces Housing Agency.

Gordon Coulman

Computer Services Administrator CFB Cold Lake

In recognition of his outstanding technical capabilities and foresight which have enabled 10 Field Technical Training Squadron to implement leading edge training technology to better carry out its mission.

Dr. Michael Margolian

Section Head - Nuclear and Proliferation Issues

He was the DND official most directly responsible for briefings, negotiations and drafting of DND positions and documents related to the standing committee on foreign affairs and international trade study on nuclear arms control, disarmament and non-proliferation.

Contact Information

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Our Internet site is updated on a regular basis and contains background information as well as current information on the Department and Canadian Forces activities undertaken on behalf of all Canadians.