



National
Defence

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Building on a Stronger Foundation

**Annual Report of the
Chief of the Defence Staff
1999 - 2000**



Canada 



Canadian destroyer leads NATO fleet — interoperability is key to the future.

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About the Cover: Highlighted on the cover is a soldier outfitted in various pieces of clothing and equipment from the Clothe the Soldier Project. The project is intended to prepare Land Force personnel for twenty-first century operations. Also on the cover are images from the Army, Navy, Air Force, and Junior Canadian Rangers.



MESSAGE FROM THE CHIEF OF THE DEFENCE STAFF

As the Chief of the Defence Staff, I am pleased to present to you my Annual Report on the state of the Canadian Forces.

While the past year was one of the busiest and most demanding years we have faced in more than four decades, there is no question that the men and women of the Forces met, and often exceeded, expectations.

Whether building or securing peace in the Balkans, providing humanitarian assistance after the earthquake in Turkey, spearheading Canada's search and rescue efforts, or helping to protect our borders against criminal activity, the Canadian Forces continued to contribute to the safety, security and well-being of Canadians and communities throughout the world.

The high operational tempo experienced in recent years, coupled with limited resources and personnel, have presented a serious challenge to the Canadian Forces. In fact, this intense level of activity has become unsustainable, and has required us to make some tough choices in order to ensure the sustainability of the Canadian Forces over the long term. For example, we have re-deployed Canadian personnel from East Timor, and are in the process of rationalizing our commitment in the Balkans and outsourcing some support functions.

We have made great strides in recent years to meet these challenges and are now building on a much stronger foundation. As a result of our reform and change initiatives and two consecutive years of budget increases, we have improved the quality of life of Canadian Forces personnel and that of their families, increased the standards of education and training throughout the Forces, strengthened our leadership at all levels, and purchased state-of-the-art equipment such as the *Coyote* reconnaissance vehicles and VICTORIA-Class submarines.

Although the fundamental tenets of Canada's defence policy remain valid, the world continues to change, and the Canadian Forces must adapt accordingly. Internationally, threats to peace, stability and human security are more complex, and modern military operations are becoming more dangerous and demanding. In addition, weapons and equipment systems are more sophisticated. At home, Canadian demographics are shifting and the competition for skilled labour is becoming increasingly intense.

As we enter the twenty-first century, the Canadian Forces must maintain the ability to protect and promote the things we value, while ensuring a better balance in our investments between current operations and future requirements. This will require us to focus our investments on the core capabilities needed for the future, maximize efficiencies wherever possible and reduce capabilities in some areas in order to invest in others.

To help achieve this balance, we have developed *Strategy 2020*, a long-term planning framework that will allow us to meet Canada's current defence commitments while adjusting to emerging defence issues. Based on current defence policy, *Strategy 2020* emphasizes the need for the Canadian Forces to be combat-capable, globally and rapidly deployable, interoperable with our closest allies, and an "employer of choice" for Canadians. These objectives are vital to ensuring the long-term effectiveness and relevance of the Forces.



**General J.M.G. Baril,
Chief of the Defence Staff**



While difficult decisions remain, I am confident that the Canadian Forces are on the right track. As one of Canada's most visible and important national institutions, we are working hard to strengthen leadership, ethics and diversity to ensure we reflect the best of Canadian society. Over the next year, special attention will also be given to reforming health care services, enhancing the professional development of our people, and restructuring the Reserve Force. These and other initiatives will help to revitalize the Forces and ensure that they are capable of operating effectively across the spectrum of conflict, from providing humanitarian assistance, to peacekeeping, to war.

Ultimately, the Canadian Forces are, and always will be, about people: the people we serve, the people we defend, and the men and women who make the personal sacrifices to protect and promote what we value as a nation.

They are the Canadian Forces. And, they are prepared for the challenges of the future.

J.M.G. Baril
General
Chief of the Defence Staff



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INTRODUCTION

As part of the wider set of reform initiatives outlined in the 1997 *Report to the Prime Minister on the Leadership and Management in the Canadian Forces*, this report is intended to provide Parliament and the Canadian public with an overview of the current state of the Canadian Forces.

National defence is a core function of government and the Canadian Forces are a vital instrument for putting into practice Canadian defence and foreign policy. As such, it is important for Canadians to have high-quality information on the current activities and operations of the Canadian Forces, as well as on the issues and challenges they are presently facing and initiatives being undertaken to address them.

The **first section** in this year's report reviews the mission and key roles of the Canadian Forces, describes the major international and domestic operations undertaken by the Forces in 1999-2000, and provides an overview of the contributions that the men and women of the Forces make to the safety, security and well-being of Canadians and communities around the world.

Section two examines the progress made in recent years in enhancing the operational effectiveness of the Canadian Forces, and reviews recent quality of life initiatives, increased standards of education and training, initiatives to improve leadership within the Forces, and the latest capital equipment acquisitions.

The **third and final section** of the report details the key challenges that must be addressed by the Canadian Forces as they continue to adapt to change, including building a sustainable force able to meet the expectations of the Government and Canadians; maintaining and enhancing the Canadian Forces' ability to operate efficiently and effectively across the spectrum of conflict; and capitalizing on the Revolution in Military Affairs.

The report contains **four annexes** that provide additional information on Canadian Forces operations during the past year; capital procurement priorities and the status of major capital equipment projects; the senior military leadership in 1999; and the breakdown of the Regular Force by rank. ■



PART I — MAKING A DIFFERENCE AT HOME AND ABROAD

Operations define the Canadian Forces. Whether at home or abroad, ongoing or anticipated, operations drive military endeavours and guide everything from training and doctrine, to personnel policies and equipment acquisitions.

People, on the other hand, define operations. They include not only those Canadians deployed on operations, but also the very people that they are deployed to help. From peace support operations in Kosovo and East Timor, to disaster assistance in Turkey, and search and rescue activities in Canada, the men and women of the Canadian Forces make a significant contribution to the safety, security and well-being of Canadians and communities around the world.

Mission and Key Roles

The mission of the Canadian Forces is to defend Canada and Canadian interests and values while contributing to international peace and security. In order to deliver on this mission, the Canadian Forces must be capable of participating in operations and activities across the entire "spectrum of conflict". (Figure 1)

Here at home, the Canadian Forces are responsible for the surveillance and control of Canada's territorial, air-space, and maritime approaches; for aid of the civil power; and for providing assistance to civil authorities in areas such as search and rescue, fisheries and border protection, environmental surveillance, counter-terrorism response, emergency preparedness and disaster relief.

The Canadian Forces also make an important contribution to many national priorities as a vital Canadian institution. The Forces reflect Canada's diversity and maintain a visible presence in more than 3,000 communities across the country. They also support economic growth, innovation and research and development, and operate the largest federally funded youth programme in Canada, including the Cadets and Junior Canadian Rangers.

As a partner with the United States in North American security, the Canadian Forces help monitor, patrol and protect the Canadian approaches to the continent. Canadian and American forces work together on an ongoing basis in areas such as training, intelligence sharing, drug interdiction, civil emergency preparedness and response, and research and development. The Canada-U.S. defence partnership is embedded in the North American Aerospace Defence Command (NORAD) and is a key element of Canada's overall relationship with the United States.

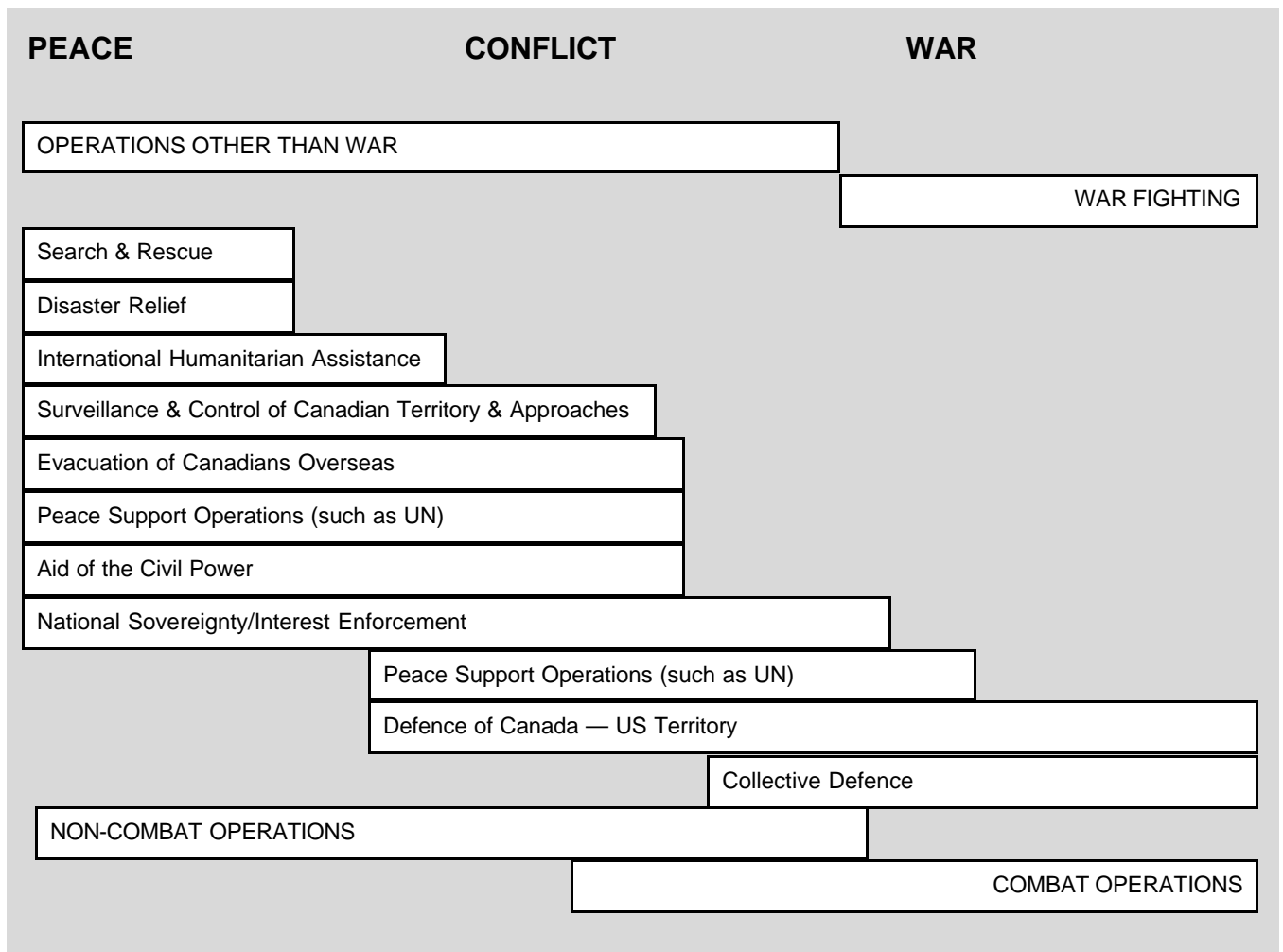
Internationally, the Canadian Forces are a key instrument through which Canada protects and promotes its values and interests on the world stage. The Forces are critical to delivering on Canada's international commitments to the United Nations and the North Atlantic Treaty Organization (NATO), and play an important role in the Government's efforts to advance a more secure world and promote human security. Recognized for their expertise in peacekeeping and peace-building, peace



Canadian soldiers on an East Timor beach, awaiting supplies from HMCS PROTECTEUR.



Figure 1 — The Spectrum of Conflict



enforcement, democratic civil-military relations, military training assistance, de-mining and humanitarian assistance, the Canadian Forces also maintain 26 military attachés accredited to 90 countries, supporting Canadian diplomacy around the world.

In short, the Canadian Forces are a multi-purpose, combat-capable force that enable the federal government to address Canada's defence needs and interests at home and abroad. And, Canadians clearly support these roles. According to Defence's annual national survey:

- 95% of Canadians agree that it is important for Canada to maintain a modern, combat-capable military;
- 94% agree that peacekeeping requires combat-ready forces;
- 92% believe that it is important for the Canadian Forces to be able to protect human rights in fragile democracies;
- 90% strongly support the use of the Canadian Forces to help Canadians in crisis; and
- 90% support Canada's continued participation in NORAD.



Operations in 1999-2000

1999-2000 was one of the busiest and most demanding years for the Canadian Forces since the Korean War.

For most of the year, more than 4,500 Canadian Forces personnel were deployed on 23 missions around the world. This commitment represented a higher ratio of the total force structure deployed on peace support operations than that of most other like-minded, Western nations.

This tempo of operations stretched the Canadian Forces. While the Forces were able to meet the demands of the year, it is a pace that cannot be sustained over time. When asked to sustain a high tempo of operations, the men and women of the Forces spend less time in Canada between international deployments. This has an impact both on their professional development and their quality of life — as well as on the quality of life of their families who must endure long periods of separation.

Significantly, the Government has reduced Canada's overseas commitments through the return of over 600 Canadian Forces personnel from the International Force in East Timor, as well as through the Balkans Rationalization project, which will see the re-deployment of approximately 1,400 Canadian Forces personnel from allied operations in Kosovo.

Nevertheless, the operational tempo currently being sustained by the Canadian Forces remains high. From 1948 to 1989, the Canadian Forces were involved in 25 international operations. Since 1990, they have deployed on 65 missions around the world, 32 of which have taken place in the past two years alone. It is likely that the Canadian Forces will be called upon to do even more in the decade ahead.

International Operations

The most visible and significant Canadian Forces operation during the past year took place in **Kosovo**. As part of its efforts to end the humanitarian crisis and bring peace to Kosovo, NATO launched an air campaign against the Federal Republic of Yugoslavia in March 1999. The Canadian Forces contributed 18 CF-18 fighters at the height of the campaign, flew more than 675 combat sorties, and accounted for 10 percent of all NATO strike missions.

In April 1999, Canada announced that it would host up to 5,000 Kosovar refugees until the situation in the Balkans stabilized. As a result, temporary quarters were set up at numerous Canadian Forces Bases, and an airlift of refugees was begun in early May. The refugees remained in Canada, receiving the care and attention needed to regain their strength and health, until it was safe for them to return home.

With the end of the air campaign in June 1999, approximately 1,400 Canadian troops joined the NATO-led peace implementation force operating in Kosovo under Operation KINETIC. The mandate of the force was to create a safe environment that would permit the return of the Kosovar refugees and the re-establishment of a functional economy.

The Canadian Forces also played a key role in the international peacekeeping force in **East Timor**. In September 1999, approximately 650 Canadian Forces personnel joined the Australian-led multinational force of 7,500 soldiers, sailors, airmen and airwomen. Canadian Forces activities included the



CF-18 returning from a mission over Yugoslavia.



airlift of over 900,000 kilograms of cargo and 2,100 passengers by aircraft from 8 Wing Trenton, at-sea and ashore replenishment duties performed by Her Majesty's Canadian Ship PROTECTEUR, and the control of over 1,000 square kilometres of jungle by a Canadian reinforced infantry company — personnel from the 3rd Battalion, Royal 22^e Régiment.

Under Operation PALLADIUM, the Canadian Forces also support peace operations in **Bosnia-Herzegovina**. The 1,350-strong Canadian task force — which includes a battle group, support and command element — is supporting the United Nations in deterring hostilities, establishing a secure environment, and monitoring the peace, as part of NATO's Stabilization Force. The rationalization of Canada's commitments in the Balkans will see the number of Canadian Forces personnel deployed to Bosnia-Herzegovina increase to an approximate strength of 1,800 troops over the next year.

In addition to these major operations, the Canadian Forces continued to serve abroad in many other areas.

Following the massive earthquake that devastated parts of **Turkey** in late August 1999, Canada's Disaster Assistance Response Team (DART) was quickly deployed to provide medical assistance and relief. Throughout its 40-day mission, the 200-member DART team cared for over 5,100 victims of the earthquake, produced and distributed over 2.7 million litres of clean drinking water, and constructed a tented camp for 2,000 displaced people.

Canada's Navy made a noteworthy contribution to the Standing Naval Force Atlantic (STANAVFORLANT), the NATO Immediate-Reaction Naval Force. During the past year, HMCS ATHABASKAN and HMCS IROQUOIS served alternately as the Squadron's Flagship. In the summer of 1999, with a Canadian in command of the Squadron, STANAVFORLANT was deployed to the Adriatic at the height of the Kosovo crisis to ensure that relief supplies from Italy reached Kosovo, while stopping war materials from reaching the combatants. The Squadron also assisted in deterring the Yugoslavian Navy from threatening United States aircraft carriers whose planes were flying missions in the region.

In the **Arabian Gulf**, HMCS REGINA, with a crew of approximately 240 Canadian Forces personnel, joined forces from the United Kingdom, Australia, New Zealand, Norway, France, the United States and others to monitor and enforce the UN Security Council resolution sanctions against the import and export of commodities to and from Iraq. Before returning to Canada in mid-December 1999, HMCS REGINA completed more than 95 hailings and 22 boardings as part of the multi-national maritime force.

Working with the United Nations in **Bosnia, Cambodia** and **Mozambique**, the Canadian Forces also contributed to international efforts to remove landmines. In Cambodia, in particular, Canadian Forces military engineers continue to provide the expertise needed to help rid the countryside of millions of unexploded landmines so that Cambodians can rebuild settlements and reclaim arable land.

Domestic Operations

At home, the most significant domestic operation during the past year centred on the transition to the Year 2000. Thousands of Canadian Forces mission critical systems, both in Canada and abroad, were inventoried, assessed, and tested for Year 2000 vulnerabilities. As a result of these efforts, the millennium transition — as well as the transition to



Canadian Rangers at work in the North.



other key dates — passed with no operational impact on the Canadian Forces or the Department of National Defence.

In addition to preparing Defence for the transition to the Year 2000, the Canadian Forces also had to be ready to assist the rest of the nation in the event of serious Year 2000 system failures. Although the transition to Year 2000 was virtually incident-free, the Canadian Forces were thoroughly prepared to help Canadians if they had been called upon. Under Operation ABACUS, the Canadian Forces employed 2,500 dedicated personnel in the field over the millennium transition. An additional 14,000 Regular Force and 11,000 Reserve Force personnel were also ready for employment over the millennium transition, had the need arisen.

In addition to Kosovo, Bosnia, East Timor and Y2K, it is important to remember that the Canadian Forces also maintained their core, ongoing operations in support of search and rescue, surveillance and control of Canadian airspace and coastal approaches, and in support of other government departments. In 1999:

- more than 700 Canadian Forces personnel, in co-operation with the Canadian Coast Guard, responded to 8,716 aeronautical and maritime incidents and rescued 4,670 people;
- the Canadian Forces committed 155 ship-days and more than 1,000 maritime patrol aircraft flying-hours to support other government department programmes in areas such as law enforcement;
- the Canadian Forces, at the request of Citizenship and Immigration Canada, provided assistance in dealing with the arrival of four smuggling vessels — which were carrying upwards of 600 illegal migrants — off the West Coast of Canada; and
- the Canadian Forces increased the level of helicopter and associated ground support to the Royal Canadian Mounted Police Marijuana Eradication Programme to support counter-drug surveillance and interdiction operations.

The Canadian Rangers, a sub-component of the Reserve Force located in coastal and northern areas of Canada, provided invaluable assistance to domestic operations over the last year. Ranger activities included communications support during Operation ABACUS, the reporting of unidentified vessels within Canadian waters, helping to counter illegal migration on the West Coast, and responding to various emergencies in isolated, northern areas. In 1999, the Chief of the Defence Staff awarded commendations to 1 and 2 Canadian Ranger Patrol Groups for their exemplary work during life-threatening situations.

In short, in 1999 the men and women of the Canadian Forces sustained the highest tempo of operations abroad in decades, supported the largest domestic contingency planning operation in history, and maintained core operations in support of the defence of Canada and North America.

For a complete compendium of Canadian Forces operations during 1999-2000, refer to **Annex A**. ■



PART II — BUILDING ON A STRONGER FOUNDATION

The Canadian Forces have had to deal with dramatic change during the 1990s.

While both the defence budget and Regular Force personnel levels were reduced throughout the decade in support of the Government's efforts to eliminate the deficit, operational demands on the Canadian Forces increased significantly. Moreover, the nature of military operations has changed dramatically. Operations are becoming more complex and demanding, weapons and equipment systems are more sophisticated, and the proliferation of high-end conventional weapons is making many theatres of operations more dangerous.

In order to meet these challenges, the Canadian Forces have actively focused on maintaining and enhancing the effectiveness and efficiency of essential, core military capabilities. Canadian Forces priorities have included:

- nurturing and improving the quality of life of Canadian Forces personnel and their families;
- enhancing education, training and professional development;
- strengthening the capital equipment programme; and
- strengthening leadership within the Forces.

As a result of these efforts, the Canadian Forces have a much stronger foundation upon which to build for the future. The Canadian Forces have made significant progress in improving pay, benefits and housing for the men and women in the Forces. Moreover, substantial progress has been made in improving standards for education and training, enhancing leadership development, and in bringing state-of-the-art equipment — such as the *Coyote* reconnaissance vehicles — to support operations.

While more needs to be done, these initiatives have made the Canadian Forces more combat-capable and operationally effective today than they were ten years ago.

At the same time, the defence funding increase in Budget 2000, as well as the funding increase in 1999 for Quality of Life initiatives, were significant steps forward for the Canadian Forces. By easing the resource pressures on Defence, it will help to provide the flexibility required to ensure the long-term relevance and effectiveness of the Canadian Forces.

Investing in Our People

The profession of arms is unique in that it places special demands and responsibilities upon its people. Canadian Forces personnel are often subject to extended periods of separation from family and friends, long working hours in harsh climates, physical deprivations, and ultimately risk to life and limb. In return for working under these demanding circumstances, fairness dictates that they and their families be properly supported.

Quality of Life

The Quality of Life (QOL) Programme was established in 1998 following a report issued by the Standing Committee on National Defence and Veterans Affairs. Designed to improve the working and living conditions of Canadian Forces personnel and their families, it includes improvements to pay and allowances, accommodations, the military family, transitions, the injured, the retired and veterans.



In the past year, significant strides have been made in implementing the programme. On 1 April 1999, full pay comparability between the military and the Public Service was restored, with pay increases averaging between 14 percent and 18 percent for privates and lieutenants/2nd lieutenants respectively. Other initiatives being pursued include:

- the review of Acting Pay as part of the overall review of the Total Compensation Package currently being conducted;
- the implementation of new parental leave and allowance regulations that provide 93 percent of pay for a period up to 12 weeks and increase the current parental leave from 10 to 26 weeks;
- a plan to replace the current Accommodation Assistance Allowance with a new Post Living Differential that provides compensation for overall cost of living differences in locations across Canada; and
- the development of a Family Care Assistance plan to provide some financial relief for personnel who incur additional family care expenses as a result of operational requirements.



The quality of life of military families is a priority for the Canadian Forces.

To better support military families, the Canadian Forces have developed a Family Policy; established Employment Assistance Counsellors and Priority Employment for Military Spouses; extended support services to the families of Reservists serving on international operations; and now provide emergency childcare through Military Family Resource Centres. The Forces are also pursuing a series of initiatives to improve compassionate travel and enhance the ability of families to be reunited in times of emergency.

To improve housing for military families, the Canadian Forces Housing Agency was provided with an additional \$50 million in 1999 and \$30 million in 2000 for health and safety repairs in Private Married Quarters (PMQ's). Furthermore, military accommodation requirements and the private sector market supply are being examined to develop a long-term Master Implementation Plan to permit the orderly disposal, refurbishment and, if necessary, replacement of PMQs.

The concerns of Reservists are also being addressed. Currently, Reservists are the only part-time component of the federal Government without a pension plan. A feasibility assessment for a Reserve Force pension plan will be completed in 2000-2001, and the development of options, technical implications, and a detailed plan will follow after the required approval is received.

With the commitment of the senior military leadership — and two straight years of increased funding for defence — we have made significant progress in improving the quality of life of Canadian Forces personnel and their families. In spite of operational pressures and the urgent requirement for capital investment, we must continue to ensure the best possible life for our people and their families.



Health

Health care is one of the most important issues to Canadians today and is a critical quality of life issue for the Canadian Forces. The Canada Health Act specifically excludes Canadian Forces members from the definition of "insured persons" for whom health services are provided under provincial health care insurance plans. As such, the Canadian Forces are both legally and morally responsible for ensuring that medical and dental services are provided to full-time Canadian Forces personnel. Moreover, the health of Canadian Forces personnel clearly has a direct impact on their ability to do their jobs.

The Canadian Forces Medical Services are currently facing significant challenges. Funding pressures have led to the closure of three military hospitals since 1989 and have precipitated a steady decline in the number of uniformed health care professionals. Efforts to address these deficiencies by relying more on public health care services, and through the implementation of the Medical and Dental Officer Retention Pay plan and a Recruitment Allowance, have proven insufficient.

These problems have been compounded by the high operational tempo being sustained by the Forces. To support international operations, the Canadian Forces have had to deploy greater numbers of medical personnel overseas, thus leaving fewer doctors at home to deliver domestic health services. Moreover, military health professionals have been left with less time to conduct important medical training, skill upgrades, and professional development.

The resulting strain is evident in the fact that attrition rates for Medical Officers completing their obligatory service is now at about 80 percent, a rate much higher than that experienced by comparable Western militaries. Without an adequate influx of replacements, the problem multiplies and leads to higher levels of stress and attrition rates.



CF member providing medical treatment overseas.

In response, the Canadian Forces are taking significant action. In January 1999, a review of the Canadian Forces Medical Services was ordered by the Chief of the Defence Staff, and soon thereafter a special Task Force was established to address the most urgent health care issues. The report, which included a special Task Force Action Plan, was completed by the Chief of Review Services last fall and was quickly endorsed by the Armed Forces Council and the Defence Management Committee, and was supported by the Minister of National Defence.

Further to this, the Croatia Board of Inquiry issued its final report on the investigation into the possible exposure of Canadian Forces

members to environmental contaminants in quantities sufficient to pose a health hazard during the course of their duties from 1993 to 1995. The resulting Action Plan, combined with the Task Force Action Plan mentioned above, will help spearhead a wide range of comprehensive reforms in the Canadian Forces Medical Services.

The medical reforms, some of which are already underway, include the issuance of a personalized health card to Regular Force members and the opening a Project Management Office for implementing a wide variety of administrative changes. Most significantly, all health care resources have been placed under the command of the Director General Health Services, a brigadier-general who is responsible for health standards, doctrine, policies and the management of military health programmes.



Other initiatives include the establishment of five Operational Trauma and Stress Support Centres across the country which offer mental health services to personnel returning from operations; the creation of a Centre for the Support of Injured and Retired Members and their Families in partnership with the Department of Veterans Affairs to provide information and assistance to members and former members injured during their military career and to act as an advocate if the situation demands it; and the development of a new Members Assistance Programme which provides 24 hour, seven days a week, emotional and psychological support to both Regular and Reserve Force personnel and their families.

The Canadian Forces are also improving the way they deal with unlicensed drugs and vaccines, which are sometimes dispensed to Canadian Forces personnel in order to provide them with the optimum protection against, and treatment of, diseases not generally encountered in Canada.

This procedure is strictly managed by Health Canada, in co-operation with drug manufacturers. The Department of National Defence has recently established an Office of Regulatory Affairs to liaise with Health Canada and to ensure proper monitoring of products accessed through Health Canada's Special Access Programme (SAP).

In order to increase compliance with Health Canada's requirements for unlicensed drugs, the Department is continuously improving its control over, use, and monitoring of unlicensed drugs, whether they are accessed through SAP or clinical trials. The Department's initiatives include:

- a directive dealing with the procurement and reporting requirements for unlicensed drugs issued in July 1999. A Canadian Forces Medical Order for these requirements is under development;
- submission of significant individual adverse event reports to the Health Canada Advisory Committee on Causality Assessment, the SAP, and drug product manufacturer (ongoing);
- implementation of a database of all unlicensed drugs administered to Departmental personnel, including name, date of administration/use and reported adverse events (ongoing); and
- posting of Patient and Health Care Provider Information Sheets for unlicensed drugs on Canadian Forces Health Services Intranet website (ongoing).

While these efforts to improve Canadian Forces health services have begun in earnest, much work remains to be done. Health issues will continue to be a top priority for the senior leadership of the Canadian Forces over the coming years.

Recruiting and Retention

Another growing issue is recruitment and retention.

As is the case with Canadian Forces Medical Officers, the current operational tempo is creating a strain on specific trades such as information technology specialists, preventative medicine technicians, and construction engineers. For example, the Canadian Forces currently face a shortfall of 230 information technology specialists — out of an establishment of roughly 1,600 personnel.

The resulting impact on the quality of life of members working in these technical trades, combined with a healthy Canadian economy and a relative abundance of civilian employment opportunities, is making it more difficult for the Forces to attract and retain these specialists.

While the Canadian Forces are currently adjusting to changing realities at home and abroad, there are, unfortunately, no easy solutions. The economy is prospering, the labour market is becoming more competitive, and operational requirements must continue to take priority in order to ensure that the Canadian Forces are able to fulfil their mission and mandate.



Diversity

One method the Canadian Forces are using to improve recruiting and retention rates over the long-term is to adapt to the cultural and demographic changes that have occurred in the Canadian workforce. More and more Canadian workers are women, Aboriginal peoples, or members of a visible minority, and the Forces must be responsive to this reality in order to attract and retain the best and brightest that Canada has to offer.

Moreover, as a national institution, and in order to better conduct operations around the world, the Canadian Forces must adapt to change in Canadian society by continuing to build a diverse and representative military force.

To this end, the Canadian Forces have established Defence Advisory Groups for Women, Aboriginal Peoples, Visible Minorities and Persons with Disabilities. These groups are assisting in identifying barriers to employment so that the Canadian Forces can eliminate them and improve working conditions and retention rates. For example, an Aboriginal Entry Programme has been created to assist First Nations, Metis and Inuit peoples adjust to life in the Forces.

Complementing these advisory groups is the Employment Equity Plan, *Building Teamwork in a Diverse Canadian Forces*, which specifically targets groups that are increasing as major elements in the Canadian workforce but are underrepresented in the Canadian Forces. The plan targets recruitment, retention and promotion of these groups with the aim of increasing representation in all occupations and ranks — without compromising the principles of merit or the operational effectiveness of the Forces.

In order to promote a healthy and tolerant work environment, the Canadian Forces have also designed and implemented standards of professional conduct that have been imparted to members through formal instruction. Sexual Harassment and Racism Prevention courses, as well as courses outlining the relevant diversity policies in the Canadian Forces, are embedded at various levels of military training.

Enhancing Education and Training

The effectiveness of a military force depends largely upon the individual and collective knowledge and skills of its members. As the world changes and operations become more complex and demanding, it is vital that the Canadian Forces continue to invest in, and enhance, the knowledge and skills of our people.

Knowledge through Education

To strengthen our education and knowledge base, the Canadian Forces have made important strides in improving education standards, learning opportunities and ethics.

To ensure that the officer corps is capable of operating in today's complex world, officer education and training is being enhanced and reformed through a wide set of initiatives, many of which fall under the Officer Professional Development 2020 Project (OPD 2020).

Each phase of OPD 2020 will examine and improve upon a specific period in an officer's professional development. As an OPD 2020 initiative, the Enhanced Leadership Model would focus on improving the early stages of officer development — including commissioning, basic training and initial military education.

A baccalaureate degree is now a prerequisite for commissioning in the Canadian Forces, with few exceptions. It is anticipated that within ten years the entire officer corps will have at least one undergraduate degree. For Regular Force members, increased resources are being provided to assist



in attaining an initial degree on either a full or part-time basis. For Primary Reserve Officers, a project has been funded — and is currently being finalized — that will provide tuition reimbursement, after time served.

The Royal Military College of Canada (RMC) has also undergone an extensive review to ensure that undergraduates receive a broad-based education, with special emphasis being placed on the development of values, ethics and leadership. In addition, RMC has extended learning opportunities to the larger Defence community through the Office of Continuing Studies, which offers undergraduate and graduate degrees to Canadian Forces members, their families, and civilian defence employees.

Military education for officers does not stop at the undergraduate level. In fact, the Canadian Forces will spend \$1.2 million over the next fiscal year to sponsor 150 officers in job-related, post-graduate programmes.

At the Canadian Forces College, a National Securities Studies Course and an Advanced Military Studies Course were recently created for those holding the rank of colonel and above. The courses concentrate on strategic issues at the senior command and staff level. In addition, a "Newly Promoted Brigadier-Generals/Commodores Seminar" was conducted this year to enhance the professional development of general/flag officers.

Since 1994, the Defence Ethics Programme has made progress in its efforts to increase ethical awareness in the Canadian Forces. Ethics of military leadership and the Canadian Forces Code of Ethics are now taught to all new recruits, and will be included in professional development courses for all officers and non-commissioned members.

During the past year an "ethics and operations" review was completed. It identified key ethical issues involved in peacekeeping environments and prompted a draft set of principles designed to better manage ethics in high intensity operational environments.

In order to bring these various elements of professional development under a common, harmonized structure, the concept of a Canadian Forces University is currently being examined. A Canadian Forces University will link all elements of the officer training, education and professional development system from the undergraduate level, through the Command and Staff College, to post-graduate studies. It will also encompass aspects such as accreditation, developmental periods, core curriculum, career based degrees, the Leadership Institute, and the new Canadian Military Journal.

Skills through Training

While education and knowledge are an important element of maintaining a professional fighting force, skills development and training are also vital.

Rapid advances in technology and the introduction of new weapons systems are changing the way activities across the spectrum of conflict are conducted. The Canadian Forces must remain current in order to remain effective. Modern simulators, for example, offer an increasingly realistic and cost-effective method for the Canadian Forces to test and improve technical leadership skills in high-pressure, combat scenarios.

At the same time, the Canadian Forces must continue to invest in traditional forms of combat training. However, meeting this requirement is a challenge, particularly in light of the high operational



Officer Cadet from the Royal Military College of Canada.



tempo currently being sustained. For example, to meet operational demands, the Army has had to reduce the intensity of its conventional combat training, particularly at the formation level.

To address these issues, the Canadian Forces are actively seeking new approaches to meet their joint and combined training requirements. For example, the Canadian Forces Joint Operations Group — operational as of 1 June 2000 — will form the nucleus of a Joint Task Force Headquarters and provide command and control in the event of a large-scale (or Disaster Assistance Response Team) deployment. Training for joint sea, land and air elements is a key part of its mandate.



Army Reservists on a 10-day exercise in Fort Knox, Kentucky.

As demonstrated in the past year in Kosovo and East Timor, the Canadian Forces must also be capable of operating alongside allied forces. Combined training activities with our NATO and NORAD partners enable the Forces to test and evaluate levels of interoperability, and make improvements to standard operating procedures. As part of the substantial list of Canada-U.S. bilateral training activities, negotiations are underway for the eventual participation of Canadian Brigade Headquarters in U.S. Divisional exercises. And, work is underway for the Canadian Forces to participate in a major multinational exercise, UNIFIED SPIRIT 2000.

Strengthening the Equipment Programme

Defence must strengthen its capital equipment programme. Significant portions of the Canadian Forces equipment inventory are ageing rapidly, and as the Auditor General reported in 1998, without increased capital investment, the Canadian Forces face eventual "rust out".

To some extent, the problem of "rust out" is self-reinforcing. As equipment ages, it becomes more expensive to maintain, but less effective. Over time, insufficient capital investment results in increased downstream costs as equipment ages, technologies become obsolete and maintenance costs rise. The net effect is the gradual erosion of the country's defence capabilities.

Due to resource constraints, the high operational tempo, the need to support institutional reform and continuous re-investment in human resources, Defence has been unable to maintain adequate levels of investment in capital equipment over the past few years. Investment in the capital portion of the Defence budget currently stands at about 19 percent, significantly lower than the 23 percent minimum annual investment that is considered necessary to maintain a modern, healthy and balanced force.

This same problem extends to general infrastructure. More than 44 percent of realty asset holdings are in excess of 40 years old, and must be replaced. It is estimated that roughly 50% of the Defence infrastructure will be unusable within 10 years. The cost of addressing this maintenance backlog exceeds \$1.0 billion.

Significantly, Defence is taking action to ensure the long-term relevance and operational effectiveness of the Canadian Forces. As a long-term target, Defence is planning to increase the capital portion of the defence budget to a minimum of 23%. Defence also intends to enhance its long-term Strategic Capabilities Plan by aligning strategic capability requirements to anticipated funding levels over a 25-year period.



Where possible, efficiencies are also being identified and enhanced. For example, in order to cut overhead, the Realty Asset Strategic Plan is examining the possibility of sharing facilities and land with other governments, other government departments, and the private sector.

Significant Projects

Within this context, it is important to recognize that significant progress has been made in modernizing our defence capabilities over the past few years.

With the delivery of modern frigates and coastal defence vessels over the past decade, and the acquisition of four VICTORIA-Class submarines, the operational effectiveness of the Canadian Navy has been significantly improved. For example, the VICTORIA-Class submarines are faster, quieter, can submerge deeper, will require less frequent maintenance and fewer personnel to operate, and have larger and more comfortable living facilities. The first submarine, Her Majesty's Canadian Ship VICTORIA, is expected to arrive in Halifax at the end of 2000.



A VICTORIA-Class submarine.

For its part, the Army is currently in the midst of a major modernization effort designed to improve everything from individual weapons to battlefield command, control and communications systems. For example, with the delivery of the *Coyote* reconnaissance vehicles and LAV III armoured personnel carriers, and the completion of the Tactical Command, Control and Communications System Project, the Army will be better prepared for the battlefield of the twenty-first century.

Moreover, through the Clothe the Soldier Project, the Army is acquiring 24 separate items of footwear, clothing, handwear, headwear, ballistic protection and load carriage vests, all of which are compatible and intended to enhance the safety and comfort of its soldiers. Despite some delays, the project is progressing, and to date has delivered a number of products to Canadian Forces personnel.

The Air Force has also invested in new equipment, such as 100 CF Utility Tactical Transport Helicopter. The CH-146 *Griffon*, as it is known, is able to perform national and international tactical transport roles in support of land forces, air forces, joint operations, civil emergencies, and a wide range of other defence objectives. In addition to the *Griffon* helicopters which are now operational, the Air Force will also be receiving 15 new Canadian Search and Rescue Helicopters, called the *Cormorant*, to replace the ageing CH-113 *Labrador* fleet.

For more information on current capital equipment projects and specific procurement priorities, refer to **Annex B**.

Leadership

Effective and decisive leadership is one of the most important ingredients in preparing the Canadian Forces for the future. Leadership is much more than the simple management of resources. It carries with it the responsibility for the lives of one's subordinates and the understanding that one's own life may be put at grave risk.

In order to operate effectively across the spectrum of conflict, the Canadian Forces must develop and nurture leaders at every level. In addition to mastering the profession of arms, Canadian Forces



leaders must possess high ethical standards, be innovative, have vision, be flexible and open to change, and they must be willing to subordinate their own self-interests for the benefit of the Forces. Most of all, leaders must lead.

Leadership Development

The overall quality of leadership in the Canadian Forces remains high, a fact partly illustrated by the number of senior allied commands that are occupied by Canadian officers. During the past year, for example, Canadian officers have held a number of prominent positions, including Commander of the Allied Command Europe Mobile Force; Deputy Commander of the U.S. Army 3rd Corps; Chief of Staff, Supreme Allied Commander Atlantic; Commander of the UN Disengagement Observer Force in the Golan Heights; and Commander of Standing Naval Force Atlantic.

Having said that, the Canadian Forces have been working hard to strengthen the officer corps and develop tomorrow's leaders, following closely the issues identified in the 1997 *Report to the Prime Minister on the Leadership and Management of the Canadian Forces*.

Through the comprehensive Enhanced Leadership Model, junior and subordinate officers will receive more training in leadership, ethics, ethos, and fundamental military principles. Likewise, senior and general/flag officers are receiving improved leadership training at the strategic level, better enabling them to prepare the Canadian Forces for the future.

The Canadian Forces are also working to create a new Leadership Institute. Once established this summer, the institute will provide a permanent forum for leadership research and development, thereby facilitating the study and dissemination of leadership issues throughout the Canadian Forces.

Leading Reform and Cultural Change

As the Canadian Forces continue to adapt to the dynamic security environment, as well as to the expectations of Canadian society, our leaders must promote and nurture institutional reform and cultural change.

Over the past few years, the Canadian Forces have implemented comprehensive reforms to the way we do business. These reforms are reflected in the *Final Report of the Minister's Monitoring Committee on Change*, which highlights improvements made to openness and transparency, accountability, leadership, Reserves and Cadets, military justice, and a number of operational issues. For example, command structures, planning procedures, rules of engagement, and pre-deployment training have all been enhanced and clarified in order to improve Canadian Forces operations.

Of the 339 change items overseen by the *Minister's Monitoring Committee on Change*, over 70 per cent have been fulfilled. While these are impressive achievements, it is imperative that the change agenda continue to move forward. Accordingly, it falls to all leaders to see through these reforms, and thereby continue to rebuild public confidence in the Canadian Forces.

Within this context, sweeping changes to the *National Defence Act* and necessary implementing regulations that deal with military justice came into effect on 1 September 1999. These reforms are designed to modernize the Code of Service Discipline and promote accountability, fairness, integrity and transparency within the military justice system. Some of the specific areas of reform include:

- clarifying the roles and responsibilities of the Judge Advocate General and military judges;
- separating the system's investigative, prosecution, defence and judicial functions;



- increasing the transparency and strengthening the accountability in the referral and disposal of charges; and
- providing for non-commissioned officer representation on Court Martial panels when the accused is a non-commissioned member.

Amendments to the *National Defence Act* also require that officers who preside at summary trials be trained, and certified as qualified, to perform duties in the administration of the Code of Service Discipline before assuming their respective duties. More than 2,000 Forces members have received this formal training and certification from the Judge Advocate General.

Oversight and Review

The Canadian Forces have introduced a Streamlined Grievance Process and co-operated closely with the Government's creation of an independent, advisory body called the Canadian Forces Grievance Board to review all grievances referred to it by the Chief of the Defence Staff and to provide findings and recommendations.

Transparency and accountability have also been improved with the establishment of the independent Military Police Complaints Commission, which became operational on 1 December 1999. This organization will hear complaints from either civilians or Canadian Forces personnel about the conduct of the Military Police in the performance of any of their policing duties or functions. Military Police can also file a complaint if they believe an investigation has been interfered with. The Military Police Complaints Commission is external to, and independent of, the Department and the Forces, and has the power to investigate and conduct public hearings.



Military Police operating abroad.

In addition to these improvements in grievance procedures and independent oversight, the Ombudsman's Office became operational in June 1999. The Ombudsman's role is to operate as a neutral third party independent of the chain of command and civilian management, to ensure that all members are treated fairly, and to contribute to substantial and long-lasting improvements in their welfare. The Ombudsman reports directly to the Minister of National Defence. ■



PART III — FUTURE CHALLENGES

The defence funding increase in Budget 2000 was a significant step forward in positioning the Canadian Forces for the future. It will help Defence and the Canadian Forces strengthen the capital equipment programme, enhance leadership, nurture the quality of life of our personnel and improve the health care we provide them.

However, the Canadian Forces are being asked to sustain significant and simultaneous overseas commitments in multiple theatres around the world. While progress is being made to reduce the overall number of troops currently deployed overseas, the high tempo of operations experienced in the 1990s is expected to continue into the foreseeable future.

Just as significantly, the character of military operations is changing. Operations are becoming more complex, demanding and dangerous. As witnessed in Kosovo, new technologies are having a dramatic impact on weapons, equipment and how military operations are conducted. Moreover, when serving abroad, the Canadian Forces are increasingly at the centre of large networks of players involved in conducting enforcement operations, supporting law and order, and providing emergency relief and humanitarian aid.



A Canadian Forces Pioneer standing sentry.

The Canadian Forces have also had to adjust to changing realities at home. Canadian demographics are shifting and competition for skilled labour is creating significant pressures on the Forces' ability to recruit and retain people in trades such as medicine, engineering and information technology.

As we enter the twenty-first century, the Canadian Forces must maintain the ability to protect and promote the things we value, while ensuring a better balance in our investments between current operations and future requirements.

Strategy 2020 was developed by the Department and the Forces for this purpose. At its core, *Strategy 2020* is a broad framework on how to best meet Canada's current defence commitments while adjusting to emerging defence issues. Based on the Government's defence policy, it articulates broad, strategic objectives that must be met if Canada is to continue to play an active role in promoting international peace, stability and human security.

As set out in *Strategy 2020*, the Canadian Forces must generate, employ and sustain a "viable and affordable force structure trained and equipped to generate advanced combat capabilities that target leading edge doctrine and technologies relevant to the battlespace of the 21st century."

The strategy emphasizes principles such as interoperability, global deployability, modernization and re-investment in our people. These objectives are inter-connected and must be achieved to ensure the long-term relevance of the Canadian Forces.

Sustaining Operations

While preparing for the future, the Canadian Forces must continue to sustain current operations and activities.



There is no question that the current tempo of operations has stretched the Canadian Forces. To sustain overseas missions over time, general planning principles require that at least three Forces members must be committed for every member deployed. For the Land Forces and National Level Units, the ratio is four to one. This is known as the sustainment ratio, and it is required to ensure that Canadian Forces personnel have the time to train for their mission, serve abroad, and receive leave and professional development upon their return home.

In recent years, personnel — particularly in speciality trades — have been deployed overseas more often. In some instances, they are at home for only 12 months before being deployed on another international operation. Clearly, this operational tempo is affecting the quality of life of our people, as well as training, equipment, and ultimately the operational effectiveness of the Forces.

The Canadian Forces are taking action to alleviate pressures caused by the current tempo of operations. Guided by *Strategy 2020*, the Forces are taking steps to improve the overall efficiency and sustainability of our force structure. For example, the Canadian Forces are developing plans to out-source certain elements of Defence's combat support capability, thus relieving some pressure on overburdened trades. Studies are also underway examining the future of the parachute capability, further infrastructure rationalization, and the acquisition of more easily deployable and maintainable equipment.

Other structural and organizational changes are being examined as a means to improve the efficiency and effectiveness of existing military resources. For example, options are being studied for the creation of a National Military Support Capability to improve deployable operational support capabilities in order to sustain current and potential Canadian Forces operations. This would allow for more efficient use of scarce resources.

Moreover, through the Mobilization Planning Framework, the Military Occupation Structure Review, and the development of various planning scenarios, the Canadian Forces are working to test the relevance and cost-effectiveness of existing force structures, make improvements, and thereby maximize the employment of military resources. The harmonization of force structures will improve the ability to plan and execute prolonged operations, Main Contingency Force deployments and national mobilization.

Defence is also looking at how best to restructure the Reserves as part of its efforts to strengthen the overall operational effectiveness, affordability and sustainability of the Canadian Forces. To assist in this process, the *Minister's Monitoring Committee on Change* was reconstituted and instructed to provide advice to the Minister of National Defence on issues pertaining to the Land Force Reserve Restructure, and to monitor the implementation of reforms in the Reserves.

In the coming years, Defence plans to further align the Regular and Reserve Force, increase resources dedicated to Reserve units, and make them more viable and operationally relevant. Specific improvements include defining the mission and operational roles of the Reserve Force, strengthening training and readiness, and improving equipment. These changes will enhance the ability of the Reserve Force to augment deployments abroad. They will also ensure that the Reserves are better prepared, as part of a balanced force structure, to provide a basis for mobilization.

Enhancing Operational Capabilities

In addition to sustaining current operations, we must ensure that the Canadian Forces have the core capabilities they need for the future. In the emerging security environment, it is clear that some defence capabilities are becoming more relevant — such as rapid reaction, global deployability and interoperability — while others are becoming less so.



Combat Capability

As demonstrated during the Gulf War and more recently in Kosovo, Canada continues to be well-served by multi-purpose, combat-capable forces. Clearly, only combat-capable forces have the flexibility required to engage effectively in activities across the spectrum of conflict, from enforcing international sanctions and deterring aggression, to participating in humanitarian assistance and disaster relief operations.



The new Light Armoured Vehicle (LAV III) in CFB Gagetown training area.

The Canadian Forces are more combat-capable today than they were ten years ago. This was achieved by improving the quality of life of Canadian Forces personnel, increasing the standards of education and training, strengthening leadership within the Forces, and through the acquisition of state-of-the-art equipment. Examples of equipment acquired over the last decade include the *Coyote* reconnaissance vehicles, *Eryx* anti-armour weapons, Maritime Coastal Defence

Vessels, Canadian Patrol Frigates, *Griffon* helicopters, precision guided munitions, and improved command, control and communications systems.

In order to ensure the combat-capability of the Canadian Forces in the future, we must move forward with our modernization and revitalization efforts, such as the acquisition of four VICTORIA-Class submarines and new Armoured Personnel Carriers (LAV III).

As well, the Army Transformation project was recently established. The Army is in the early stages of a fundamental transition, with doctrine being updated, new equipment entering service and organizational and cultural change ongoing. The Army Transformation project is currently producing a blueprint for the "Army of Tomorrow," one which focuses on modernization, combat-capability and global deployability.

Rapid Reaction and Global Deployability

If Canada is going to continue to play an active role in the world and give increased prominence to the human security agenda, the Canadian Forces must be able to deploy quickly and efficiently to trouble spots throughout the world to support peace and humanitarian aid operations. The conflict in East Timor and the earthquake in Turkey both underscored the need for the Canadian Forces to be globally deployable.

Recognizing the growing importance of global deployability, Canada's allies — including Australia, Great Britain and the Netherlands — have begun to boost investment in strategic air and sealift to improve the expeditionary capability of their forces. Many of these countries are also creating



Members of 89 Logistics Squadron loading a helicopter onto a CC-130 Hercules aircraft.



lighter, more mobile, ground forces that are designed to respond quickly to regional contingencies ranging from humanitarian missions, to peacekeeping operations, to armed conflict.

In order to respond quickly and effectively to a broad range of threats anywhere in the world, Canada's Army is moving towards a predominantly wheeled vehicle inventory that requires less support, is easier to deploy, and yet provides adequate firepower and protection. For example, the Light Armoured Vehicle III is now entering service, and features a stabilized automatic 25mm cannon, a laser range finder, and both image intensification and thermal sights. These changes will improve the speed, agility and deployability of the Canadian Forces, while, at the same time, being more cost-effective.

The Navy is also planning equipment acquisitions that will extend the strategic reach of the Canadian Forces. The Afloat Logistics and Sealift Capability project seeks to provide the capability to deploy and support land forces, including tactical aviation. As our experience in East Timor confirmed, the existing PROTECTEUR-Class Auxiliary Oiler Replenishment ships do not provide all of the support required by land forces in modern peace support operations.

For its part, the Air Force is currently investigating options for enhancing its strategic airlift capability, as well as a strategic air-to-air refuelling capability. It is essential that the Canadian Forces have the ability to deploy rapidly throughout the world with the appropriate military hardware.

Maintaining our Ability to Work with our Allies

If Canada's contribution to international peace, stability and human security is to remain meaningful, the Forces must also be interoperable with Canada's military allies in coalition contexts such as Kosovo.

Interoperability means more than having identical or compatible equipment; it encompasses an understanding of each other's policy, doctrine and equipment. It is an ongoing process dependent upon the training, education and flexibility of Canadian Forces personnel. The increase in the number of combined and joint operations, together with the quickening pace of technological change, makes interoperability with Canada's allies more critical and difficult.



The Canadian Forces make an important contribution to STANAVFORLANT.

It is especially important that the Canadian Forces remain interoperable with our American counterparts. Not only do the two forces cooperate closely in the defence of North America, but as partners in NATO they also work together in a broad range of operations throughout the world. Existing fora such as NORAD, the Permanent Joint Board on Defence, and the Military Co-operation Committee all provide venues for ensuring interoperability between the two forces.

The ability to communicate with our closest allies will be key to ensuring interoperability in the twenty-first century. Future missions will rely heavily on space-based capabilities to provide intelligence, surveillance data and robust command and control. Space-based systems currently allow instant communications between various Canadian headquarters and facilitate direct interoperability with the military forces of the United States.

Over the next decade, Defence will continue to invest in space capabilities through the Joint Space and Canadian Military Satellite Communications projects, building upon Canadian expertise in



partnership with our allies. Defence is also participating in the development of the American Advanced Extremely High Frequency (AEHF) military communications satellite programme. As a result of this initiative, the Canadian Forces will be provided with guaranteed global access to the highly secure AEHF military communications satellites, beginning in 2006.

The Revolution in Military Affairs

The Revolution in Military Affairs (RMA) represents the most significant long-term challenge in positioning the Canadian Forces for the future. There is no question that the RMA will have an impact on the men and women of the Forces, their operations and activities, and on the military capabilities needed for the future.

A Revolution in Military Affairs is a dramatic change in the nature of military operations brought about by the innovative application of new technologies, coupled with changes in military doctrine and operational and organizational concepts.



CF member inspecting precision guided munitions.

Initial glimpses of today's RMA were seen during the Gulf War. Images from cameras mounted in the nose of "smart bombs" were broadcast world-wide and established beyond doubt that military operations had entered a new era, where technology and information play as important a role as people and firepower.

Without question, the RMA will have a profound impact on the Canadian Forces, particularly their ability to operate effectively across the spectrum of conflict. Assessing the best way to incorporate and take advantage of the RMA has become an important force development issue for the Canadian Forces. Clearly, the first priority is maintaining interoperability with Canada's

allies, particularly the United States. At the same time, an appropriate balance must be achieved between current and future requirements, as well as between the quality and quantity of defence capabilities required by the Canadian Forces.

To build a modern, relevant and combat-capable force will require increased emphasis on conceptual development, modelling and simulation, and experimentation. There are currently a number of collaborative opportunities available within NATO. The Canadian Forces are exploring these options and will seek to participate with Canada's allies where and when appropriate.

At this early stage in the Revolution in Military Affairs, it is essential that the Canadian Forces encourage the free flow of ideas and prepare our personnel for the changes ahead. The Strategic Capability Planning Working Group recently assumed overall responsibility for co-ordinating all joint RMA activity in the Canadian Forces, and is working to stimulate intellectual debate on the issue. For example, a three-day symposium was held in April 2000 to explore Concept Development, Experimentation/Modelling and Simulation, an important aspect of the RMA.

Today's Revolution in Military Affairs represents both a challenge and an opportunity for the Canadian Forces. Maintaining interoperability with Canada's closest allies in the context of the RMA will be a significant challenge, and is one reason why the Canadian Forces are planning to increase investment in capital equipment. Properly applied, advances in technologies such as information and



guidance systems have the potential to significantly enhance the operational effectiveness of the Canadian Forces.

Moreover, the Revolution in Military Affairs represents a unique opportunity for Canada to nurture Canadian innovation in information technology, particularly in the areas of telecommunications, information management and remote sensing.

Meeting the challenge of RMA is a key tenet of the Canadian Forces' strategy for the future. As *Strategy 2020* states, Defence must focus its "research and development efforts to target leading-edge technologies, while capitalizing on Canadian technological know-how, to build and extend the Canadian Forces' distinctive competencies." ■



CONCLUSION

Throughout the past year, the men and women of the Canadian Forces continued to make a difference both at home and abroad. Whether building or securing peace in Kosovo and East Timor, providing humanitarian assistance after the earthquake in Turkey, spearheading Canada's search and rescue efforts, or preparing for the millennium transition, the Canadian Forces contributed to the safety, security and well-being of Canadians and communities throughout the world.

However, these commitments stretched the Canadian Forces in 1999 — it is a pace of operations that has been reflective of the past decade, but one that cannot be sustained over time.

With the defence funding increase in Budget 2000, our extensive reform and change initiatives, and *Strategy 2020*, the Canadian Forces are now building on a much stronger foundation.

Nevertheless, the Canadian Forces must be ready to meet new challenges. Operations are more complex and demanding, weapons and equipment systems are more sophisticated, and the proliferation of high-end conventional weapons is making many theatres of operations more dangerous. At home, Canadian demographics are shifting and the competition for skilled labour is creating significant pressure on the Forces' ability to recruit and retain people in speciality trades.

In order to meet these challenges, the Canadian Forces are focusing on enhancing the effectiveness of core military capabilities. This includes nurturing our people and improving their quality of life, as well as strengthening our investment in modernization, global deployability, and the capabilities required to ensure that we remain interoperable with our closest allies.

The lifeblood of the Canadian Forces will continue to be our people. Ultimately, it is the men and women of the Canadian Forces who assist in ensuring the safety, security and well-being of Canadians and communities around the world. It is therefore imperative that they have the proper leadership, training and equipment to do an increasingly difficult and dangerous job. ■



ANNEX A: CANADIAN FORCES OPERATIONS

Domestic Operations

Operation ABACUS: Under Operation ABACUS the Canadian Forces (CF) prepared responses to possible Year 2000 system failures. Approximately 2,500 CF personnel were employed during Operation ABACUS at Headquarters across Canada and at the National Command and Control Information System. An additional 14,000 Regular Force and 11,000 Reserve Force personnel were also ready for employment over the millennium transition, had the need arisen. Fortunately, the Year 2000 rollover occurred with little impact.

Sovereignty Operations: The Canadian Forces, through various continental defence arrangements like NORAD and in conjunction with other government departments, provide surveillance and control of Canadian airspace and coastal approaches. In 1999 this included a commitment of 155 ship-days and more than 1,000 maritime patrol aircraft flying-hours to support other government programmes and law enforcement operations.

Counter-Migrant Smuggling Operations: The Canadian Forces provide assistance to other government departments and agencies by identifying, tracking, and intercepting vessels suspected of carrying illegal migrants. The CF provided assistance, at the request of Citizenship and Immigration Canada, in dealing with the arrival of four smuggling vessels off the West Coast of Canada carrying upwards of 600 Chinese migrants during the summer of 1999. Aircraft conducted surveillance and naval vessels helped interdict the migrant vessels, providing rescue support and transportation to secure locations. As well, Defence facilities ashore at Esquimalt, British Columbia, were used as temporary housing for the illegal migrants.

Counter-Drug Smuggling Operations: Throughout the past year, the Canadian Forces continued to provide assistance to the Royal Canadian Mounted Police (RCMP) in support of counter-drug surveillance and interdiction operations. In addition, the level of CF helicopter and associated ground support to the RCMP 1999 Marijuana Eradication Programme was increased with proportionate improvement in its effectiveness. In July 1999, the Minister of National Defence and the Solicitor General of Canada reviewed and approved a revised memorandum of understanding on the provision of CF assistance to law enforcement activities. The new document both reaffirms the CF commitment to work with the RCMP in combating drug traffickers and formally authorizes the employment of a wide range of defence capabilities in support of RCMP-led counter-drug initiatives.

Search and Rescue Operations: In co-operation with the Canadian Coast Guard, the Canadian Forces provided support to and co-ordination of approximately 8,700 search and rescue incidents. These operations involved about 700 personnel.

Operation MANDOLIN: The Canadian Forces provided support to the XIII Pan-American Games held in Winnipeg, Manitoba, in July and August 1999. Types of support included equipment, facilities, and personnel. In fact, more than 380 personnel were employed in the athletes village, vehicle dispatch, marshalling of athletes, communications, medical assistance, evacuation, operation of the Games Operations Centre, and water safety patrols. In addition, members of the CF provided ceremonial support for the opening and closing ceremonies.

Operation PARASOL: In a highly successful joint humanitarian operation with Citizenship and Immigration Canada and the Red Cross, the Canadian Forces provided temporary accommodations to approximately 5,000 Kosovar refugees between April and August 1999. The Kosovar refugees were received at Canadian Forces Base (CFB) Greenwood and Trenton. Following a brief medical examination, they were then accommodated at CF facilities at Aldershot, Borden, Gagetown, Greenwood, Halifax, Kingston and Trenton.



International Operations

North Atlantic Treaty Organization (NATO) Kosovo Force — Operation KINETIC: With a mandate to establish and maintain a secure environment and, if necessary, to enforce the terms of the Military Technical agreement, Canada's contribution to Kosovo (since June 1999) consists of approximately 1,400 personnel including a National Command and Support element, an infantry battle group, a reconnaissance squadron and a tactical helicopter unit.

North Atlantic Treaty Organization (NATO) Stabilization Force — Operation PALLADIUM: With a mandate to support the United Nations (UN) in deterring hostilities, establishing a secure environment, and monitoring the peace in Bosnia-Herzegovina, the Canadian contingent of approximately 1,350 Canadian Forces personnel consists of National Command and Support elements, a battle group, an advanced surgical centre, a helicopter detachment and construction engineers. Canada also provides several staff officers to the various Headquarters positions located throughout Bosnia-Herzegovina.

Operation ECHO: In response to ethnic violence in Kosovo, a NATO-led air campaign was launched on 24 March 1999 against the Federal Republic of Yugoslavia. Canada's initial contribution was six CF-18 fighters which, at the height of the campaign, surged to 18 aircraft. More than 675 combat sorties were flown and various types of ammunition were expended with the majority of bombs, approximately 360, being precision-guided. The campaign ended on 22 June 1999 and Canada withdrew 12 CF-18 aircraft shortly thereafter. Since that time the Canadian Forces have maintained a commitment of six CF-18s in Aviano, Italy, in support of NATO forces in the Balkans.

United Nations Mission in Bosnia-Herzegovina: The mandate is to maintain a diplomatic presence, co-ordinate United Nations High Commissioner for Refugees (UNHCR) humanitarian activities, and create and monitor an international police force designated to implement various aspects of the Dayton Peace Accord. The Canadian Forces contribute a senior staff officer to the office of the UN Co-ordinator for Bosnia-Herzegovina.

United Nations Interim Administration in Kosovo — Operation QUADRANT: The mandate is to establish a civilian presence in Kosovo and develop an interim civilian administration. The Canadian Forces provided a communications officer and four staff personnel.

Bosnia-Herzegovina Mine Action Centre — Operation NOBLE: The mandate of this centre is to advise and train local authorities in Bosnia-Herzegovina in mine-clearing techniques. The Canadian Forces provided four staff officers: an advisor to the Assistant Director Co-ordination in Sarajevo, a financial advisor in Banja Luka, and a training advisor in both Bihac and Banja Luka. Their mission was to monitor and support the training of their civilian counterparts from Bosnia-Herzegovina, who will eventually take over all aspects of the Bosnia-Herzegovina Mine Action Centre. The Canadian Forces ended their participation in February 2000 and turned over responsibility to local civilian de-miners.

United Nations Mission of Observers in Prevlaka: The mandate of this mission is to monitor the situation in Prevlaka, at the southern tip of Croatia and bordering the Federal Republic of Yugoslavia. One Canadian officer is serving as a UN military observer.

Operation TORRENT: The Disaster Assistance Response Team (DART) again played a key role in Canada's contribution to an international disaster relief operation. On 17 August 1999, an earthquake measuring 7.4 on the Richter scale hit Turkey leaving 16,000 dead, 25,000 injured, 20,000 to 30,000 missing and approximately half a million people homeless. Just one week later, the DART was operating in Turkey and providing critical medical and potable water service to the devastated community of Serdivan. By the end of the 40-day mission, the DART had achieved extraordinary success. The Team's accomplishments included receiving more than 5,100 patients at its primary



care medical treatment facility, processing and distributing 2.7 million litres of potable water, and providing engineer assistance to the Red Crescent and the United Nations Children's Fund (UNICEF) in the establishment of temporary, tented accommodation for 2,000 people.

Operation AUGMENTATION: Maritime Interdiction Operations in the Arabian Gulf were established to monitor and enforce UN Security Council resolution sanctions against the import and export of commodities, including oil, to and from Iraq. Since 1991, Canada has sent ships to participate. Her Majesty's Canadian Ship REGINA deployed in June 1999 with approximately 240 personnel as part of the United States Ship ABRAHAM LINCOLN Carrier Battle Group. REGINA returned to Canada in mid-December.

International Force in East Timor (INTERFET) — Operation TOUCAN: This mission was mounted in September 1999 to restore peace and order in East Timor following violence precipitated by a vote to secede from Indonesia. Canada contributed over 600 personnel to the Australian-led multinational force of 7,500. The Canadian Forces deployment consisted of the following components:

Air Component — two Hercules transport aircraft with 105 personnel based in Darwin, Australia. They flew their first flight into East Timor on 28 September. They returned to Canada at the beginning of November following significant contributions to the Allied airlift;

Sea Component — Her Majesty's Canadian Ship PROTECTEUR departed Canada on 23 September with 277 personnel on board. PROTECTEUR began her at-sea and ashore replenishment duties upon her arrival in East Timor in October.

Land Component — a reinforced infantry company of 272 personnel departed Canada on 15 October and on 29 October conducted an amphibious landing on a beach near Suai, East Timor. The initial tactical area of responsibility was large and eventually grew to encompass more than 1,000 square kilometres. The company group conducted jungle patrols in very rugged terrain and under severe tropical climatic conditions, including torrential monsoon rain. They returned home in March 2000.

The Canadian Forces continue to have three personnel serving with the UN force that is taking over from the multinational force.

United Nations Civilian Police Mission in Haiti — Operation COMPLIMENT: The mandate is to help the Government of Haiti develop a professional national police force. The CF provided six armoured personnel carriers (*Bisons*), five maintenance personnel, and periodically, six drivers to teach the UN civilian police how to drive the vehicles. This operation was completed on 26 March 2000.

United Nations Disengagement Observer Force — Operation DANACA: The mandate is to supervise the cease-fire between Israel and Syria, supervise the redeployment of Israeli and Syrian forces, and establish an area of separation according to the disengagement agreement. Canada provides 186 personnel primarily for supply, transport, and maintenance support, as well as communications detachments to all UN Disengagement Observer Force units.

United Nations Peacekeeping Force in Cyprus — Operation SNOWGOOSE: The mandate is to maintain the cease-fire and help restore normal conditions. Two Canadians are serving with the United Nations headquarters.

Multinational Force and Observers — Operation CALUMET: The mandate of the Multinational Force and Observers in the Sinai, a non-UN mission, is to supervise the provisions of the peace treaty between Israel and Egypt in accordance with the Camp David Accord. Tasks include operating a series of observation and command posts, as well as verifying the adherence of the parties to the treaty. Canada provides 28 personnel to the headquarters staff.



United Nations Truce Supervision Organization: The mandate is to observe and maintain the cease-fire ordered by the UN Security Council and to assist the parties in supervising the application and observance of the General Armistice Agreement concluded separately between Israel, Egypt, Lebanon, Jordan, and Syria. Tasks include monitoring, supervising, and observing the cease-fire agreements, and providing observers in the Golan Heights, South Lebanon, and Sinai. Canada provides 11 personnel.

United Nations Iraq-Kuwait Observation Mission — Operation RECORD: The mandate is to monitor the Khor Abdullah Waterway (between Iraq and Kuwait) and the demilitarized zone, to deter violations of the boundary, and to observe any inter-state hostilities. The Canadian Forces provide five personnel as UN military observers and headquarters staff.

Mission Nations-Unies Guatemala — Operation QUARTZ: The mandate is the cease-fire agreement between the Government of Guatemala and the Unidad Revolucionaria Nacional Guatemala (URNG) for firm and lasting peace, signed in 1996 to officially end 36 years of civil war. The CF provides one Military Liaison Officer to advise the mission director on military matters and liaise between the government, rebels, verification teams and Guatemalan Armed Forces.

United Nations Development Programme — Support to the Cambodian Mine Action Centre: The mandate of this programme is to provide technical specialists to help conduct mine-awareness activities, mine-clearance training, and the planning of mine-clearance operations under the auspices of the United Nations Development Programme. Canada's contribution to this technical advisory group is currently seven personnel, including the Chief Advisor — Operations.

Standing Naval Force Atlantic: The CF contribution to the Standing Naval Force Atlantic, the NATO Immediate-Reaction Naval Force, is one ship. HMCS ATHABASKAN and IROQUOIS served in Standing Naval Force Atlantic during the fiscal year and also served as the Flag ships for the force. A Canadian was the commander of Standing Naval Force Atlantic during the year.

United Nations Mission in Sierra Leone (UNAMSIL) — Operation REPTILE: The Canadian Forces is providing five military observers to the UN mission in Sierra Leone.

United Nations Accelerated De-mining Program (UNADP) Mozambique — Operation MODULE: The Canadian Forces is providing three de-mining advisors.

The United Nations Observer Mission in the Democratic Republic of the Congo (MONUC) — Operation CROCODILE: A UN decision on the mandate for the UN military observers and protection force has not yet been determined and is awaiting the Secretary General's report. Canada is filling the position of Chief of Staff Plans and Operations in the Advanced UN Military Headquarters in Kinshasa.

United Nations Mission in the Central African Republic (MINURCA) — Operation PRUDENCE: The mandate was to support the UN force in the Central African Republic by providing a signals detachment. This operation spanned from April 1998 to October 1999, and was discontinued following successful presidential elections. The CF withdrew its 45 personnel in November 1999.

Operation CONNECTION: In order to expand the inter-agency co-operation between the Department of National Defence and non-governmental organizations, an officer was attached to CARE Canada from April to September 1999 and deployed to Albania. It is expected that a similar attachment will be made in the summer of 2000.



Arms Control Verification (ACV) Operations

Operation VERIFY: The mandate is to conduct arms control inspections to monitor military personnel levels and to verify the declared equipment holdings of the signatory countries under the provisions of the Treaty on Conventional Armed Forces in Europe. These inspections are usually conducted in co-operation with other signatory states through multinational inspection teams coordinated by the NATO Verification Co-ordinating Committee. Canada led two Operation VERIFY missions this year: one in Romania and the other in Russia. It also participated in a further 14 missions throughout Eastern Europe. The main thrust of these inspections is to achieve increased security and stability in Europe through the verification process.

Operation REDUCTION: The mandate is to conduct arms control inspections to verify the reduction of military equipment through destruction, conversion and recategorization under the provisions of the Treaty on Conventional Armed Forces in Europe. The CF participated in one Operation REDUCTION inspection during 1999-2000, providing an inspector to a NATO team tasked with certifying the reduction of Russian equipment east of the Urals. The main objective of this operation was to promote greater security and stability in Europe through the reduction of military equipment.

Operation QUESTION: The mandate is to conduct arms control operations resulting from Canada's signature of the 1994 Vienna Document. Canada led four Operation QUESTION missions this year: two inspection missions into Uzbekistan and Azerbaijan, and two evaluation missions into Latvia and Finland. In addition, Canada participated in a further eight Operation QUESTION missions in Europe. These operations aim to promote stability, transparency and openness in military affairs among the 53 nations of the Organization for Security and Co-operation in Europe (OSCE).

Operation MENTOR: The mandate is to provide arms control inspectors and training assistance for inspection teams led by the witness states, the Federation of Bosnia-Herzegovina, or the Republika of Srpska under the auspices of the Dayton Peace Accords. Canada participated in two Operation MENTOR missions during 1999-2000 by providing an inspector to inspection missions. The objective of these missions is to enhance mutual confidence and reduce the risk of further conflict in the Balkans.

Operation ACTIVE SKIES: The mandate is to conduct observation flights over other signatory states as permitted by the Treaty on Open Skies. The Treaty allows participating nations to fly over, on short notice, all territory of other participating nations while using onboard sensors to image any desired points of interest. Canada conducted two Operation ACTIVE SKIES missions during 1999-2000 (one over Russia and the other over Ukraine) and participated as an observer in a further two missions over Norway and the Czech Republic. These observation flights are recognized as an international Confidence and Security Building Measure with the goal of promoting greater military openness and transparency.

Operation PASSIVE SKIES: The mandate is to co-ordinate, escort and monitor OPEN SKIES observation flights over the territory of Canada. The Treaty on Open Skies allows signatory nations to fly over, on short notice, the territory of Canada and use onboard sensors to image any desired points of interest. Canada conducted one Operation PASSIVE SKIES mission during 1999-2000, supporting a Ukrainian flight over Canada. These observation flights are recognized as an international Confidence and Security Building Measure with the goal of promoting greater military openness and transparency.

Operation OPEN VIEW: Operation OPEN VIEW allows the escort of an inspection team from the Organization for the Prohibition of Chemical Weapons, and stems from Canada's signature of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons (the Chemical Weapons Convention). Operation OPEN VIEW 1/00 occurred at the Defence Research Establishment Suffield, Alberta, in February 2000.



United Nations Special Commission — Operation FORUM: The mandate is the inspection and destruction of Iraq's ballistic missiles as well as its chemical, biological, and nuclear facilities. Two Canadian Forces members are assigned to the operation at United Nations Headquarters in New York.

Partnership for Peace (PfP) Activities

The introduction of the Partnership for Peace (PfP) initiative in 1994 added a new dimension to the relationship between NATO and non-NATO countries. The aim of the PfP is to enhance stability and security throughout Europe. Canada has been a strong supporter of the PfP programme since its inception.

In 1999, Canadian Forces personnel participated in three maritime, three land, and two air force PfP exercises. Although the majority of these activities were conducted in Central and Eastern Europe, Canada hosted two major activities. One, dubbed Exercise CO-OPERATIVE BEST EFFORT 99, was an army peace support operation field training exercise involving more than 400 troops from 18 nations, and the other, Exercise CO-OPERATIVE ZENITH 99, was an air force search and rescue activity involving nine nations. ■



ANNEX B: CAPITAL PROCUREMENT

Investing in the future through focused capital procurement enables the Canadian Forces to build robust military capabilities. This, in turn, allows Canada to maintain its contribution to peace and security both at home and abroad. To this end, we are improving the way we procure capital equipment by:

- ❑ Increasing the capital portion of the defence budget to a minimum of 23%.
- ❑ Enhancing the long-term Strategic Capabilities Plan by aligning strategic capability requirements to anticipated funding levels over a 25-year period.
- ❑ Reducing the acquisition cycle for approved projects by 30% through a number of procurement reforms, including the use of pre-facilitated contracting, just-in-time delivery and better alliances with industry.

Procurement Priorities

Specific Canadian Forces procurement priorities, as outlined in the current capital plan, are:

- **Maritime Helicopter** — Under this project, Defence would acquire new maritime helicopters to replace Canada's ageing *Sea King* fleet.
- **Aurora Incremental Modernization** — This project consists of several elements aimed at refurbishing and replacing systems required to extend the capability of the *Aurora* long-range patrol aircraft. These aircraft are essential to providing long-range surveillance capability in support of the Canadian Forces and other government departments.
- **CF-18 Incremental Modernization** — This project consists of several elements aimed at refurbishing and replacing those systems required to maintain the Canadian Forces' capability to conduct airspace control, contingency air operations, and provide effective air support.
- **Canadian Military Satellite Communications** — Under this project, Defence is planning to acquire an effective long-range communications capability to support the command and control of deployed forces. Upon completion, it will enhance the Forces' ability to interoperate with key allies, particularly the United States.
- **Joint Space Capability** — This project will address two space-related capabilities: the surveillance of space, which will provide data on space objects of Canadian national interest; and surveillance from space, which will contribute to a comprehensive space capability in support of operations.
- **Afloat Logistics and Sea-lift Capability** — Under this project, Defence plans to acquire multi-purpose vessels capable of supporting naval task groups at sea and providing sea-lift for supporting land and air forces in joint operations.
- **Airlift Capability** — Strategic airlift is becoming increasingly necessary in the new international security environment. To make a difference abroad, the Canadian Forces must be able to deploy quickly to where they are needed. Under this project, Defence will review options for enhancing the strategic airlift capabilities of the Canadian Forces in order to meet the increased need for rapid deployability.
- **Strategic Air-to-Air Refuelling Capability** — The Canadian Forces lost its strategic air-to-air refuelling capability with the retirement of its Boeing 707s. This project will investigate the options available to re-acquire this capability.



- **Command and Control and Air Defence Capability Replacement** — This project is designed to replace the command and control and Task Group area air defence capability currently being provided by Canada's ageing IROQUOIS-Class destroyers.
- **Land Force Intelligence, Surveillance, Target Acquisition and Reconnaissance Capability** — This capability will provide Land Force commanders with timely and accurate operational intelligence to effectively employ forces and minimize the risk of casualties. The project will enable the processing of inputs from a wide variety of existing and anticipated national and international battlefield sensors.
- **Medium Indirect Fire System** — This project will correct identified deficiencies with the current Land Force medium indirect fire system.

Status of Major Capital Equipment Projects

This sub-section outlines ongoing capital equipment projects:

- **Canadian Search and Rescue Helicopter (CSH) Project** — The purpose of the CSH project is to replace the CH-113 *Labradors* with a fleet of 15 new helicopters. This project will address the operational deficiencies of the current CH-113 *Labrador* fleet, eliminate the support difficulties of these older airframes, and provide a fleet size sufficient for continuous operations well into the 21st Century. The project is on schedule with the first helicopter delivery in 2001.
- **Military Automated Air Traffic System Project** — A national air traffic system project that will automate air traffic services has been initiated by Transport Canada. To ensure that military air operations continue to function effectively, remain compatible with the national system, and keep pace with these enhancements, the Department of National Defence and the Canadian Forces has established the Military Automated Air Traffic System (MAATS) Project. MAATS is now scheduled for completion in 2004-2005.
- **Canadian Forces Utility Tactical Transport Helicopter Project** — The Canadian Forces Utility Tactical Transport Helicopter, or the CH146 *Griffon*, replaces three ageing helicopter fleets — the CH118 *Iroquois*, the CH135 *Twin Huey* and the CH136 *Kiowa*. The primary task of the aircraft is the tactical lift of troops and equipment. The project will deliver 100 CH146 *Griffons*, a flight simulator, composite maintenance trainer, facilities, mission kits (including defence electronic warfare suites), as well as other equipment, documentation and services. All 100 helicopters and mission kits were delivered on schedule.
- **Protected Military Satellite Communications Project** — The aim of the Protected Military Satellite Communications Project (Protected MILSATCOM) is to overcome current Canadian Forces interoperability and global command and control limitations. Upon completion, this project will enable long-range communications to deployed forces and facilitate their interoperability with allies.
- **Armoured Personnel Carrier (APC) Replacement Project** — The existing APC fleet does not meet the minimum operational requirements when compared to the modern, technically sophisticated weapons and vehicles Canadian soldiers encounter during operations. The APC Replacement Project aims to improve the protection, self-defence capability, mobility, carrying capacity and growth potential of the Canadian Forces APC fleet. Vehicle deliveries have begun and are on schedule.



- **Canadian Forces Supply System Upgrade Project** — The Canadian Forces Supply System Upgrade (CFSSU) project will employ information technology to modernize Canadian Forces military supply operations. Not only will this dramatically improve productivity, but it will also reduce overall computer processing costs and allow for local site processing to continue in the event of a network communication failure. To date, the Warehouse Management Information System has been delivered and installed at Montreal and Halifax. Nine classrooms have been set up and equipped for conversion training at the Canadian Forces School of Administration and Logistics and the Materiel Management Training Centre. The Test and Development Centre was handed from the prime contractor on 25 October 1999. Communications infrastructure is being delivered to all logistics sites. The project is to be completed by August 2001.
- **Tactical Command, Control and Communications System Project** — The aim of the Tactical Command, Control and Communications (TCCCS) Project is to replace the current Land Forces tactical communication system with a fully integrated system that will be secure, survivable, responsive and easily maintained under current and future battlefield conditions. The project will deliver a number of critical communications systems, including 10,000 radios installed in approximately 5,500 vehicles. Delivery and fielding of 4,633 portable lightweight assault radios, 253 air-ground-air radios and 1,125 battery charging systems occurred between 1996 and 1998. Official project completion is scheduled for March 2002.
- **Submarine Capability Life Extension Project** — The Submarine Capability Life Extension (SCLE) project will replace the ageing OBERON-Class submarine fleet with four VICTORIA-Class submarines. This includes safe-to-dive certificates, four crew trainers (including a combat systems trainer), a ship control trainer, a machinery control trainer, and a torpedo handling and discharge trainer. The project supports Canada's ability to conduct surveillance and control of its territory, airspace and maritime areas of jurisdiction, as well as participate in bilateral and multilateral operations. Canada has accepted delivery (*in situ*, in the UK) of the submarine trainers, and training began in February 1999.
- **Light Utility Vehicle Wheeled Project** — The aim of the Light Utility Vehicle Wheeled (LUVW) Project is to acquire up to 802 standard military pattern vehicles and associated logistics support, as well as up to 861 militarized commercial off-the-shelf vehicles to replace the current Iltis fleet.
- **Clothe the Soldier Project** (CTS) — Land Force personnel must be clothed and equipped to conduct war and operations-other-than-war world-wide, year-round and in all types of weather conditions. Much of the current suite of individual clothing and equipment is based on old technology and designs that have become obsolete. Taking advantage of improvements in material technology and assisted by human factors engineering, the CTS omnibus project will introduce 24 separate items of compatible footwear, clothing, handwear, headwear, ballistic protection and load carriage.

The currently approved sub-projects are:

- i. A CTS omnibus project, which includes 24 unique items.
- ii. The Improved Environmental Clothing System (IECS), which consists of Sweatshirts, Sweatpants, Coat Combat, Pants Combat, Parka and Overalls.
- iii. The Cold Wet Weather Glove (CWWG), to be worn with the IECS, provides protection to the soldier in cold, wet environmental conditions.
- iv. Lightweight Thermal Underwear (LWTU), which will enhance and be compatible with the IECS.



- v. The Wide Brimmed Combat Hat (WBCH), to be worn with the Combat Uniform, provides protection to the soldier from sun and rain.
- vi. Drawers Temperate Underwear (DTU), which will enhance and be compatible with the IECS.
- vii. The Wet Weather Boot (WWB), to be worn with the IECS, provides protection to the soldier in cold, wet environmental conditions.
- viii. Ballistic Eyewear (BEW), which will provide the soldier with ballistic eye protection. This includes ocular protection for ultraviolet radiation and various ballistic enhancements over the current combat spectacles.
- ix. The Combat Vehicle Crew (CVC) Glove, which will provide crews of Armoured Fighting Vehicles with fire-retardant handwear.
- x. The Multi-Tool, which will provide the soldier with increased sustainability in all field conditions. ■



ANNEX C: ARMED FORCES COUNCIL

The Armed Forces Council (AFC) is the senior military body of the Canadian Forces. The AFC meets regularly to advise the Chief of the Defence Staff on broad military matters pertaining to the command, control and administration of the Canadian Forces and to assist the CDS in reaching decisions.

The council is chaired by the CDS, generally meets once per month (or as required during operations), and includes the Vice-Chief and Deputy Chief of the Defence Staff, the Environmental Chiefs of Staff and senior military advisors.

Brief biographies of the members of the Armed Forces Council for 1999 are provided below. More information on their roles and responsibilities are available at www.dnd.ca. □

General Maurice Baril, CMM, MSM, CD Chief of the Defence Staff

General Maurice Baril was born on 22 September 1943 in Saint-Albert de Warwick, Que. Commissioned in 1963, he joined the Regular Force in the Royal 22^e Régiment (R22^eR).

General Baril has had a distinguished career, having served as a Commander of Combat Training at Canadian Forces Base Gagetown, Military Advisor to the Secretary-General of the United Nations, and Chief of the Land Staff. He has served in Lahr, Germany from June 1977 to April 1979, Cyprus in 1973, 1979 and 1981 and the United Nations.

General Baril was appointed Chief of the Defence Staff on 17 September 1997. He is married to Huguette Desjardins of Martintown, Ont. They have two children, François and Hélène. □

Vice-Admiral Gary Garnett, CMM, CD Vice-Chief of the Defence Staff

Vice-Admiral Gary Garnett was born in Halifax, NS, and grew up in Stoney Creek, Ont., where he became active in the Sea Cadet Programme at RCSCC LION. He enrolled in the Royal Canadian Navy as a Naval Cadet in 1963, and four years later received his commission after graduating from Carleton University.

Over the course of his naval career, Vice-Admiral Garnett has served in ships throughout Canada's fleet, including HMC Ships SKEENA, SAGUENAY, ANNAPOLIS, IROQUOIS, ALGONQUIN AND HURON. He has held positions ranging from Weapons Officer to Chief Personnel Services to Chief of the Maritime Staff.

Vice-Admiral Garnett was appointed Vice-Chief of the Defence Staff on 24 September 1997. He is married to Jill Garnett of Montreal, Que. □

Lieutenant-General Raymond Henault, CMM, CD Deputy Chief of the Defence Staff

Lieutenant-General Raymond Henault was born on 26 April 1949 in Winnipeg, Manitoba. He joined the Canadian Forces in 12 July 1968 as a pilot, completing training at CFB Borden, Ont., and RCAF Station Gimli, Man.

Over the course of his career, Lieutenant-General Henault has accumulated more than 4,500 hours of flying time on a range of aircraft, including: CF-101 Voodoo, Musketeer, and Twin Huey. He has served across Canada and in Paris, and Lahr, Germany. He has served as an Air Traffic Controller; Chief of Staff, Operations for Air Command Headquarters; and Director-General Military Plans and Operations (J3 Staff) at National Defence Headquarters.



Lieutenant-General Henault was appointed Deputy Chief of the Defence Staff on 4 September 1998. He is married to the former Loraine Mowat of Smithers, B.C. They have three children, Louise, Richard, and Michael. □

Vice-Admiral Greg Maddison, CMM, MSC, CD
Chief of the Maritime Staff

Vice-Admiral Greg Maddison was born in Nova Scotia in August 1949. In 1972, he graduated from the Royal Military College of Canada in Kingston, Ont., and received his commission.

Vice-Admiral Greg Maddison has served in HMC Ships ASSINIBOINE, TERRA NOVA, IROQUOIS AND ATHABASKAN. Over the course of his career, he has held positions ranging from Navigating Officer to Commander, First Canadian Destroyer Squadron, to Commander of NATO's Standing Naval Force Atlantic.

Vice-Admiral Maddison was promoted to his present rank and appointed Chief of the Maritime Staff on 24 September 1997. He is married to the former Linda Mellick. They have two children, Jessica and Keith. □

Lieutenant-General Bill Leach, CMM, CD
Chief of the Land Staff

Lieutenant-General Bill Leach was born in Sarnia, Ont., and began his military career in 1960 at the Collège militaire royal de Saint-Jean.

General Leach has served across Canada, in Soest, Germany, and with the United Nations Emergency Force (UNEF II) in Ismalia, Egypt. He has served as a Logistics Officer, Deputy Assistant Quartermaster General to the British Army on the Rhine, and Associate Senior Assistant Deputy Minister (Materiel).

Lieutenant-General Leach was promoted to his current rank and appointed Chief of the Land Staff on 24 September 1997. He is married to Mary Louise. They have two daughters, Kim and Shelley, and a son, Marc. □

Lieutenant-General David Kinsman, CMM, CD
Chief of the Air Staff

Lieutenant-General David Kinsman was born in Aylesford, NS, on 6 June 1946. In 1963, he was selected for the Regular Officer Training Plan in the pilot classification, and began pilot training at RCAF Station Gimli, Man., in 1966 following three years at Acadia University.

Over the course of his career, Lieutenant-General Kinsman has flown Tutors, T-33s, U.S. T-38 Talons, the CF-101 Voodoo, the CF-5 Freedom Fighter, and the CF-18. He has served in various locations across Canada and the United States, and has held positions as a pilot, flying instructor, Fighter Group commander, and Assistant Deputy Minister (Personnel).

Lieutenant-General Kinsman was appointed to his current position as Chief of the Air Staff on 1 April 1998. He is married to Audrian Fick of Winnipeg. They have two daughters, Heather and Andrea. □

Lieutenant-General Roméo Dallaire, CMM, MSC, CD
Special Advisor to the Chief of the Defence Staff on Officer Professional Development

Lieutenant-General Roméo Dallaire was born in Denekamp, Holland, on 25 June 1946. He enrolled in the Canadian Army in 1964 after four years in the Cadets and Reserves.

Lieutenant-General Dallaire has held various command, staff and training appointments in Canada and around the world. He has served as Commanding Officer of the 5^e Régiment d'artillerie légère



du Canada, Commander of the Collège militaire royal de Saint-Jean and Commander of the UN Assistance Mission for Rwanda (UNAMIR).

Lieutenant-General Dallaire was appointed as Special Advisor to the Chief of the Defence Staff on Officer Professional Development in February 1999. He is married to Elizabeth Roberge of Quebec City. They have three children, Willem, Catherine and Guy. □

Lieutenant-General Michael Caines, CMM, CD
Assistant Deputy Minister (Human Resources — Military)

Lieutenant-General Caines was born in Corner Brook, Newfoundland, in 1948. He initially enrolled in the Canadian Army Reserves in the Royal Newfoundland Regiment in 1964, and transferred to the Regular Officer Training Plan in 1965. He is a graduate of the Royal Military College in Kingston, Ont.

Commissioned as a Lieutenant in the Royal Canadian Armoured Corps, he was posted to the 12e Régiment Blindé du Canada in Quebec City as a troop leader. He subsequently served several tours of duty with the Regiment, the last as Commanding Officer.

Lieutenant-General Caines served as Commandant, Royal Roads Military College in Victoria, BC, Commander, Combat Training Centre in Gagetown, N.B., and Commander, Canadian Forces Recruiting, Education and Training System in Borden, Ont. prior to assuming the duties of Assistant Deputy Minister (Human Resources — Military) in July 1999. He is married to Ellen Greene of Placentia Bay, Newfoundland, and they have two daughters, Katherine and Elisabeth. □

Major-General Stu McDonald, CMM, CD
Chief Reserves and Cadets

Major-General Stu McDonald was born 2 June 1943, in North Battleford, Sask. After first joining the Royal Canadian Sea Cadets in Regina, he enlisted in the militia in Ottawa in 1958.

Major-General McDonald has had a broad and distinguished career with the Reserves and the Cadets. He has served as a Cadet platoon commander, Commanding Officer of 15th Field Artillery Regiment, a member of the Directing Staff of the Militia Command and Staff Course in Kingston, Commander of Pacific Militia Area, and Reserve Advisor at Land Forces Command.

Major-General McDonald was appointed to his current position as Chief Reserves and Cadets in 1997. He is married to the former Sally Clark of Victoria, B.C. They have a son, Ian, and a daughter, Wendy. □

Chief Warrant Officer Maurice Dessureault, OMM, CD
Canadian Forces Chief Warrant Officer

Chief Warrant Officer Maurice Dessureault was born on 2 November 1945 in Shawinigan, Quebec. He enrolled in the Canadian Army in 1964 and was posted to the 2nd Battalion Royal 22^e Régiment.

He served with the Regiment in Valcartier, Quebec, in Werl, in Northern Germany and later in Lahr, in Southern Germany. In 1983, he was posted to the Collège militaire royal de St-Jean as Master Warrant Officer of the military drill training section. He was promoted Chief Warrant Officer in 1987. In 1990, he was named Regimental Sergeant-Major of the 1st Battalion Royal 22^e Régiment and in 1992, deployed to Bosnia.

He held the appointments of Chief Warrant Officer Land Force Quebec Area and Land Force Command Chief Warrant Officer before being appointed Canadian Forces Chief Warrant Officer in June 1999. He is married to Marianne Claassen, who is originally from the Netherlands. They have one daughter, Désirée. ■



ANNEX D: SUMMARY BY RANK — REGULAR FORCE PERSONNEL

Military Rank	Actuals 1997-98	Actuals 1998-99	1999-00 Estimate	2000-01 Planned	2001-02 Planned	2002-03 Planned
General/ Lieutenant-General	9	9	10	10	9	9
Major-General	18	18	18	18	18	18
Brigadier-General	43	43	43	43	43	43
Colonel	250	259	270	268	267	266
Lieutenant-Colonel	872	885	944	945	942	939
Major	3,011	2,970	2,979	2,982	2,972	2,963
Captain	6,195	6,247	6,050	6,058	6,037	6,018
Lieutenant	1,325	1,260	1,330	1,332	1,327	1,323
Officer Cadet	1,391	1,368	1,536	1,538	1,532	1,527
Chief Warrant Officer	607	588	598	599	596	595
Master Warrant Officer	1,770	1,704	1,635	1,637	1,632	1,627
Warrant Officer	3,850	3,703	3,612	3,616	3,604	3,592
Sergeant	7,171	6,921	6,728	6,736	6,713	6,692
Corporal	28,779	29,118	28,259	28,294	28,196	28,108
Private	5,651	5,637	5,318	5,324	5,306	5,289
Total	60,942	60,730	59,330	59,400	59,195	59,010

¹Source: 2000 Report on Plans and Priorities.