



Canadian Forces Dental Services – an Introduction and History



The Canadian Forces Dental Services (CFDS) is the Dental Branch of the Canadian Forces (CF), which is comprised of 60,000 Regular Force members and 15,500 Reserve Force members in a unified, tri-service military organization. The mission of the Canadian Forces Dental Services is to enable the Canadian Forces to fulfill its operational role by providing high quality, operationally focused dental care, at home and abroad, which establishes and sustains a high state of readiness and is both consistent with the scope of dentistry available to the Canadian population and appropriate to the needs of the member. To fulfill this mission, the CFDS currently has an establishment of 119 officers (including dentists and administrative officers), 201 non-commissioned members (dental technicians and dental hygienists) and 110 civilian employees and contractors (including dentists, dental hygienists, dental assistants, nurses and receptionists).

Even though the CFDS provides operational dental care to CF personnel in the land, sea and air environments, all CFDS military personnel wear the land environment uniform. This reflects that, before the integration of Canada's three armed services in 1968, all military dentists belonged to the Royal Canadian Dental Corps of the Canadian Army; they did, however, provide dental services to the Royal Canadian Navy and Royal Canadian Air Force as well.

The CFDS had been led by a Director General Dental Services (DGDS), with the rank of Brigadier-General, until 1995. The Canadian Forces were then directed to reduce staffing and costs as part of federal government cutbacks. The CFDS was faced with the choice between self-imposed downsizing or the acceptance of massive reductions and potential outsourcing as dictated by external powers. The CFDS produced a proposal, which was accepted and implemented, which saw all dental units, complete with their commanding officer and HQ staff positions, abolished and the establishment of a single Dental Unit to command all CFDS dental clinics. The DGDS position was reduced to Colonel and renamed Director of Dental Services. Further, the CFDS was placed under a new organization, the Canadian Forces Health Services (CFHS), ending 58 years of 'dental' autonomy¹.

The downsized CFDS organization was clearly too lean to provide the level of dental service required to support the dental needs of the CF population. Dental fitness levels declined while the Director Dental Services fought to achieve an establishment that could work. Op CFDS Reforger was the process by which the present day CFDS establishment was reached. The current Director Dental Services is still working to ensure that the CFDS establishment is adequate to provide the appropriate level of

dental service in all locations, and a major establishment review is underway to achieve that goal.

In 2003 the Surgeon-General position, which had also been downgraded to Colonel, was reinstated at the rank of Brigadier-General. The Director Dental Services is now the only Canadian Forces professional-technical authority not established at a General rank.

1 Dental Unit is commanded by a Colonel and consists of a small headquarters in Ottawa and 26 dental detachments, including two in Europe. The three largest detachments are designated specialist centres and are commanded by a Lieutenant-Colonel. These clinics have a periodontist, a prosthodontist, and an oral maxillo-facial surgeon on staff, in addition to general dentists. Smaller clinics are commanded by Majors or Captains. Many clinics employ Advanced General Dentistry specialists to provide and co-ordinate specialty dental care. The majority of CFDS specialist officers complete their post-graduate training at US Army dental facilities, through a long-standing co-operative agreement between the two dental services. In clinics where specialist care is not available, patients may be referred to CFDS specialist centres or to civilian specialists in private practice.

Canadian Forces members are entitled to comprehensive dental care at public expense, which is that treatment available and necessary to maintain functional dental fitness. While the full spectrum of dental care is provided to our patients, the emphasis is on prevention. Dental enrolment standards are minimal; one of the tasks of the CFDS is to bring recruits to a state of dental fitness and to maintain that level of fitness throughout their career. When seen for their periodic dental examination, patients are assigned a dental fitness classification, based on NATO standard dental fitness codes². Dental Class 1 is 'Optimal Dental Fitness', Dental Class 2 is 'Functional Dental Fitness', Dental Class 3 is 'Potential Dental Casualty' and Dental Class 4 is 'Undetermined'. Patients assigned to Dental Class 3 require dental care to reach a state of functional dental fitness, while patients assigned to Dental Class 4 are those who have been delayed in being seen for their periodic dental examination.

Operational Capabilities

The CFDS must be able to seamlessly support naval, land and air operations of the CF, a tri-service organization. It must be prepared to serve anywhere in the world where CF soldiers are deployed.

Dental support is based on clinical capabilities referred to as "Roles". When deployed on operations, dental personnel provide Role 1 support (emergency dental care), which includes the control of life threatening oral conditions, the treatment of acute dental conditions (pain or dental injuries) and the initial stabilization of maxillofacial injuries for evacuation. Role 2 (sustaining) dental support includes the treatment of urgent dental conditions and treatment provided to intercept potential dental casualties, and is usually provided. When circumstances permit, some Role 3 (maintenance) care is provided,

such as more complex and comprehensive treatment to preserve functional dental fitness and the initial surgical management of maxillofacial injuries by dental specialists. Dental support is provided to the Fleet at sea from clinics aboard the two Auxiliary Oil Replenishment ships: HMCS Protecteur and HMCS Preserver. A dental team consisting of a Dental Officer and a Dental Technician provide Role 1 and 2 dental care. Space is at a premium on board ship, therefore the clinic is compact while providing the equipment necessary to accomplish the mission. The set-up for one operatory includes an X-ray head and radiograph processor (but no Panoramic radiograph capability), storage for supplies, operators' carts, a sterilization area and a desk.

The CFDS has two equipment systems to support land-based operations: the Dental Special Equipment Vehicle (SEV) and the Air Transportable Dental System (ATDS). These systems may be used to support either Army or Air Force operations.



Any time, Any where

The Dental SEV, commonly known as a Mobile Dental Clinic (MDC) is a self-contained "dental operatory on wheels" and is most suited to support sustained operations. This hard (but not armoured) climate-controlled shelter, mounted on a 2½-ton truck base, provides a compact yet comfortable environment complete with all equipment and tools needed to provide comprehensive dental care by a two person treatment team. There is space for storage of all dental supplies, equipment and the

team's personal kit when on the move. An optional tent for reception and waiting area can be attached to the shelter. The 10-kilowatt diesel generator is towed in a trailer and detached from the vehicle when it is set up for treatment.

The mobility of the Dental SEV allows independent travel to serve the CF soldiers in their locations, making "camp calls". The system is very heavy and slow driving up large hills and cumbersome to manoeuvre over rugged terrain. However, after arriving in location, set-up time is only about 60 minutes and the dental team is equipped to provide a wide range of treatment services.

The ATDS is used to support static operations of short duration because it is light (only 400 pounds), compact and logistically simple to transport into a theatre of operations. It can be set up under canvas tenting or inside any suitable shelter, such as an abandoned building. Its basic components are the compressor, chairs and operator cart

of the Dental SEV with the addition of a portable X-ray unit and sink; all are powered by a 5-kilowatt generator. Like the SEV, the set-up provides a complete dental operatory with all equipment and tools needed to provide a wide range of dental care.

HISTORICAL BACKGROUND PART 1 – OPERATIONAL EXPERIENCES

The history of the Canadian Forces Dental Services can be traced back to the Boer War in South Africa from 1899 to 1902. For the first time, Canadian dental surgeons operated in a theatre of war. Dr. David Henry Baird of Ottawa served with the No. 10 Canadian Field Hospital and Dr. Eugene Lemieux of Montreal served with the second Battalion Royal Canadian Regiment. Both belonged to the Canadian Army Medical Corps but had no Army status during this time. They accompanied the Canadian Troops in operations in the Transvaal, the Orange River Colony and the Cape Colony. The great number of soldiers who presented with dental emergencies established the fact that dental services in the field were indispensable. The Canadian Dental Association reacted while the Boer war was still on by pressing the government of Canada to form a Regular Army Dental Staff as a distinct branch of the medical service. This effort met with success when by General Order No 98, dated 2 July 1904, an establishment of 18 Dental Surgeons in the Army Medical Corps was authorized. Among the first Dental Surgeons to be appointed were the Boer War veterans, and now honorary Lieutenants, Doctors Baird and Lemieux.

World War I (1915-1918)



World War I Dental Parade

When World War I began, many recruits were rejected for Dental reasons. There were only 26 Dentists attached to various medical units and they could not cope with the demand for the service. Civilian dentists were asked to volunteer their service, so much of the treatment was done by private practitioners.

On 13 May 1915, General Order No 63 authorized the Canadian Army Dental Corps (CADC) as a separate corps under administrative and professional control of the Director of Medical Services. Canadian dental officers were attached to the field ambulances and did wonders in the forward area, including even the provision of gold plates³. A British Army consultant, Sir Cuthbert Wallace, stated in 1918 that, “the Canadians had a very perfect dental organization” and suggested that the British

service copy the Canadian model which enabled them to provide advanced treatment in the forward areas.

The CADC began operations overseas in July 1915 with a strength of 30 Dental Officers and 74 other ranks - a ratio of 1 dentist for every 1400 personnel. In 1915, the first Canadian Military Dental Clinic was established in a stable at the Exhibition Grounds in Toronto. This was the first Military Dental Clinic in the British Empire.

Dental mechanics were enrolled in the rank of Sergeant. The supply of dental mechanics from civilian sources was soon exhausted, prompting the CADC to submit a plan to open a military training school. A more novel approach proved satisfactory - the entire freshman class of dentists in Ontario was recruited as dental mechanics with the stipulation that they would receive credit for the freshman year if they completed their studies after their military service.

From July 1915, when the CADC began operations in the theatre of war, until December 1918, over 2.2 million dental treatments were performed³. This included 97,000 treatments for British troops and 50,000 treatments for 'trench mouth'. Another 1.4 million treatments were provided in Canada. Considering the small numbers of dentists on strength, this was an immense effort.

When the war ended on 11 November 1918, the CADC strength had increased to 223 officers and 459 other ranks serving in stationary hospitals, field hospitals, and field ambulances in Great Britain, France and Belgium. Seven officers and ten other ranks had died in action. In addition, 4 medals for Meritorious Service and 10 Orders of the British Empire were awarded.

The demobilization of 60,000 soldiers within a month following the war presented the Corps with the challenge of returning these soldiers to the state of dental fitness they had prior to embarkation. Two out of every three soldiers needed treatment³. The result was a short-lived increase in the strength of the Corps. Once demobilization was completed, the Canadian Army Dental Corps was disbanded. However, on 15 June 1921, the CADC was reformed as a corps in the non-permanent Active Militia.

World War II (1939-1945)

In reality, until 1939 the Dental Corps was little more than a number of individual dental officers scattered thinly throughout the units of the medical corps³. This ineffective arrangement was ended when the CADC was disbanded and replaced by the Canadian Dental Corps (CDC) under the command of a 'Chief Dental Officer'. The newly formed CDC immediately had to face the challenge of mobilization for World War II (WWII).

In October 1941, \$1750 was donated to purchase the first of 184 Mobile Dental Vans, mobile dental clinics mounted on a three-ton truck. With these trucks, dental treatment was provided closer to the front lines. As a result, the equipment and mobility of the Corps was the admiration of the dental corps of the other allied forces³.

The first dental detachment to serve at sea on an operational ship was established in 1943. The following summer a dental team was posted to the Canadian hospital ship

Letitia on a voyage to Manila, with the purpose of treating liberated prisoners of war. The next year it became policy to change detachments serving aboard hospital and other ships to give more personnel the experience of serving at sea³.

The use of dental records for forensic purposes, especially in identifying war casualties, came into prominence during WWII. Many fatalities were identified who lacked any other means of identification. Dental forensic techniques were also used to identify deserters and cases of fraudulent enrolment.



**Canadian Army Dental Corps mobile dental clinic
circa 1942**

When the Canadian Women's Army Corps was formed in 1941, the first female dental assistants were enrolled. Several hundred of these women were employed in clinics in Canada, freeing up male dental assistants for overseas service.

During World War II, the CDC deployed dental services throughout Canada to support the recruiting effort and demobilization, to the United

Kingdom to support the Royal Canadian Air Force and army training camps, to North Africa, Sicily and Italy, in support of the Normandy invasion, and finally throughout north-west Europe.

The following quote from a 1944 article in the Maple Leaf, the armed forces newspaper, succinctly describes the dental corps experience of World War II:

"Canada's Dental Corps is second to none in any army in the world in personnel, equipment and operation. These professional men and their assistants have been through the mill from Caen, Vaucelles, Falaise and the long run across France, Belgium into Holland and finally the Nijmegen salient. They take the latest in dental attention to the fighting men and know what it's like to work under shell and mortar fire. Throughout the Canadian push in Europe, they've handled the Canucks, English, Yanks, Czechs, Dutch, Belgians, Poles, civilians and many others. They've made and repaired enough false teeth to keep a nation chewing and kept many a good set fit for hardtack. They handle battle casualties of a dental nature either on the spot or through medical channels, for every operator is familiar with the surgical method of dealing with facial injuries.¹"

At the end of WWII the Canadian Army Dental Corps had a strength of over 5000 members, with fully half deployed overseas. 14 Dental Officers and 19 Dental Technicians gave their lives on active service during WWII.

The outstanding performance of the Canadian Dental Corps during the war convinced the authorities that it should be kept alive after demobilization. In Oct 1946 the Canadian Army was reorganized and for the first time the dental corps became a component of the regular force with an establishment of 88 Dental officers, five non-dental officers and 147 other ranks. In 1947 His Majesty King George VI granted the Royal Warrant to the Canadian Dental Corps in recognition of outstanding service. Thus, the CDC became the "Royal Canadian Dental Corps (RCDC)." In October 1950 an alliance with the Royal Army Dental Corps was also approved³.



Mobile Dental Clinic crossing the Rhine

Post World War II

After the War, the RCDC faced a serious recruiting challenge. With the post-war economy booming and a high demand for dental treatment in the private sector, only 22 out of 87 positions for dentists were filled, many of these in headquarters. Recognizing that dentists already in practice would be difficult to recruit, the focus was placed on dental students. A plan to subsidize dental studies in exchange for a commitment to service was introduced in 1948 and was immediately successful. The subsidization program in various forms has remained the main recruiting source of dental officers to this day. It was also in the late 1940s that the first dental officers received post-graduate training, the start of a specialty training program that has flourished over the years⁴.

Korea (1950-1957)

In early August 1950 the Canadian government decided that Canada would participate in the United Nations police action in Korea. The participation of the Royal Canadian Dental Corps in the Korean War was of enormous importance to the growth of the corps. During this action the strength of the Canadian Forces more than doubled and a similar increase in the size of the corps occurred. This permitted an improved rank

structure and better career prospects for dental personnel, which made service in the corps more attractive. In addition, the standard of service provided in Korea under difficult conditions enhanced the reputation of the corps with future senior army officers and, as a result, obtaining desired improvements and benefits were facilitated⁴.

The first dental detachment arrived in Pusan on 7 November 1950 and the last detachment departed Korea on 1 July 1957³. During these seven years, 43 officers and 85 other ranks served in Korea with great distinction, continuing the tradition of a high standard of mobile dental service to Canadian troops in the field³. This was in addition to the immense task of preparing the troops at home for mobilisation, many of which were WWII veterans who had not had any dental care for five years or were new volunteers “in dreadful dental condition.”⁴ The Officer Commanding of the dental detachment at the staging area in Fort Lewis, USA, reported that many members of the Princess Patricia’s Canadian Light Infantry had departed for Korea edentulous, which he considered a “scandalous” situation. He also commented that, “there were twice as many padres with the Special Forces as dental officers and did this mean that their souls were in worse condition than their mouths?”³

North Atlantic Treaty Organization (NATO) in Europe

27 Canadian Field Dental Detachment was stood up to support the Canadian Brigade in Europe that was Canada’s contribution to NATO following WWII. This dental unit provided a high standard of service to personnel of the brigade and their dependants in Germany until it was disbanded in 1970. During that period, 87 officers and 141 non-commissioned members served with this unit. A dental detachment also accompanied the new No. 1 Fighter Wing RCAF at North Luffenham, England, in November 1951. This detachment was later amalgamated into 35 Dental Unit, which became responsible for all CFDS activity in Europe.

For many years 35 Dental Unit operated medium sized dental clinics with 4 Canadian Mechanized Brigade Group in Lahr, Germany and with 4 Air Wing in Baden-Soellingen, Germany. The clinic in Lahr also had a fleet of mobile dental clinics and regularly exercised with the brigade. After Canada withdrew these formations from Germany in 1994, dental teams remained behind at SHAPE Headquarters in Casteau and Geilenkirchen and still provide dental care to Canadian military members and their families.

United Nations Emergency Force Middle East (UNEF)

In response to hostilities between Egypt and Cyprus in 1956 that threatened to disrupt the freedom of navigation through the Suez Canal, the United Nations deployed a police force, commanded by a Canadian Major-General, to police the zone between opposing forces and to prevent recurrence of fighting. Canada provided a self-contained battalion size force, augmented by ordnance, army service corps, dental and medical detachments, that was able to operate independently from a Canadian Base. Over one hundred RCDC personnel served with the UNEF detachment during its ten years of operation⁴.

United Nations Forces in Cyprus (UNFICYP)

In 1963 Canada offered military support to the newly organized United Nations peacekeeping operation in Cyprus. The first dental detachment arrived in Nicosia in 1964 and the detachment was continuously manned until the Canadian battalion was withdrawn in 1994. The only other dental team attached to UNFICYP was from the Royal Army Dental Corps and it became a common practice for the two teams to alternate 'on-call' as well as to cover each other's patients during absences due to leave or travel.

Gulf War 1990-91 (Op FRICTION, Op SCALPEL)

Canada deployed three HMCS ships and a CF-18 fighter jet squadron with 4,000 personnel (peaking at 2,700 personnel in theatre) in response to the Iraqi invasion of Kuwait. The three Canadian ships, representing less than 10% of the multi international force, accounted for over 25% of the interceptions. HMCS Protecteur had a dental team on board which kept very busy treating dental emergencies from all of the coalition ships. The CFDS also deployed an Oral and Maxillofacial Surgeon and his assistant to the Persian Gulf on board USHS Mercy, a US Navy hospital ship. Another dental detachment was deployed with elements of 1 Canadian Field Hospital, which supported the Royal Army Medical Corps 32 Field Hospital.

Somalia 1993 (Op DELIVERANCE)

The Canadian Airborne Regiment, totalling 1000 troops, deployed to Somalia in early 1993 to participate in Op Deliverance, a United Nations humanitarian aid mission. A dental team accompanied the regiment, working out of a SEV shelter that had been removed from the truck. During the 149-day mission there were 269 patient visits for a total of 985 dental procedures. Major Ed Karpetz, the dental officer, had previous military experience as a fighter jet pilot and was thrilled when given the chance to pilot a US Army Blackhawk helicopter.

Former Republic of Yugoslavia (FRY) 1992-2004

Over 40 CFDS dental teams, consisting of a Captain dental officer and a Sergeant dental technician, experienced a six-month tour in the Former Republic of Yugoslavia, with up to three teams present in theatre at any given time.

The Canadian military contribution to the Balkans has had 12 different names, depending on the makeup of the coalition. Canadian troops first came to the Balkans in February 1992 as part of the United Nations Protection Force (UNPROFOR). In 1995 NATO entered Bosnia-Herzegovina with the 60,000-strong Implementation Force (IFOR) to ensure that the belligerent parties complied with its terms. Standing Force (SFOR) (as the NATO force became known in 1996) was part of a major international effort to help Bosnia-Herzegovina reshape itself as a democratic European nation.



CFDS and RAMC members serving together at the multinational surgical hospital in Šipovo, Bosnia-Herzegovina

Canada has made a significant contribution to each of these missions and CFDS dental teams have always been there to serve CF personnel.

During this operation one or two dental teams were deployed, depending on the number of Canadian troops in theatre. CFDS personnel were located in various camps and would visit other camps with the Mobile Dental Clinic to provide dental treatment in location. Some camps had the ATDS portable dental equipment set up in trailers or under canvas, ready for visiting dental teams to utilize. In the case of dental emergencies, patients were evacuated to the location of a dental team.

A common dental condition encountered on operation was 'Popcorn Syndrome,' where troops would have popcorn husks caught under their gum tissue. Additionally, the troops started to develop gingival caries due to their sugary diet; the box lunches provided contained sandwiches and small salads but also soft drinks, juices and sweet packaged desserts.

The troops were also afforded dental cleanings and many dental technicians were given the opportunity to practice and hone this skill. The soldiers enjoyed having someone to care for them as they sat in an air-conditioned mobile dental clinic, reclined in a comfortable dental chair. It was a bit of a rare treat for them.

CFDS dental teams were very popular with many of the other contingents in theatre. In particular, a common memory is that of Czech troops arriving unannounced in an old grey military minivan, often with ten or more personnel squeezed in. The explanation was always that their dentist was away from camp; many of them had been in pain for some time waiting for him to leave so they could come to the Canadian dental team. One major attraction – Canadian dentists used local anesthetic!



Dental Officer giving out toothbrushes in a Bosnian school

Of particular note, a CFDS Dental Technician MWO Leslie Burton, was chosen as the first Canadian to be named Squadron Sergeant-Major at the Role 3 Multinational Integrated Medical Unit in Šipovo. This hospital was commanded by a British officer and manned mostly by British and Dutch personnel, as well as some other Canadians. The position had traditionally been filled by the Dutch medical forces. She was the only dental member in this medical unit.

Dental Forensic Team (Op PERSISTENCE)

In September 1998, Swissair 111 crashed into the Atlantic Ocean near Peggy's Cove, Nova Scotia. All 229 persons on board were killed. Shortly after the tragic crash of Swissair 111, the overwhelmed provincial coroner of Nova Scotia requested the assistance of the CFDS. During September and October of 1998 a total of 54 dental personnel were tasked to effect dental identifications of the victims.



CFDS Forensic Team in Shearwater, Nova Scotia

During the operation, 313 postmortem specimens were processed, with over 2000 radiographs taken. 198 antemortem dental records were received from around the world and compiled into a standard format. By the end of the operation, 149 positive identifications had been made, 102 of them by the dental team. Eventually DNA testing provided the identification of all remaining passengers and crew.

For its outstanding work during those difficult moments, the Canadian Forces Dental Services Forensic Team was honoured with the Canadian Forces Unit Commendation in May 1999.

East Timor 2000 (Op TOUCAN)

The initial Canadian Task Force to East Timor in 2000 included approximately 250 sailors from the Canadian naval replenishment ship HMCS Protecteur, a 250-strong light infantry company group largely from the 3rd Battalion, Royal 22^{ième} Régiment, and approximately 100 air force personnel with two CC-130 Hercules transport aircraft from 8 Wing Trenton, Ontario.

In October 2000 Canada commenced Operation Apollo, its contribution to the US led operation against terrorist elements in Afghanistan. The campaign included sea, land, and air forces. Canada's naval contribution included HMCS Halifax, HMCS Charlottetown, HMCS Vancouver, HMCS Toronto, HMCS Preserver and HMCS Iroquois, which were involved in surveillance, maritime interdiction to prevent al-Qaeda members from leaving the Arabian Sea area and protection for the US Navy's Amphibious Readiness Group. At any given time, there were three to five Canadian naval vessels on duty. Dental teams were deployed with HMCS Preserver and HMCS Protecteur.

Afghanistan 2002 – present (Op APPOLLO, Op ATHENA)

In 2002, further to the fight against terrorism, Canada launched a land-based mission named Op Apollo into the Kandahar region of southern Afghanistan. A total of 600 Canadian troops were deployed. A dental team was deployed with 1 Canadian Field



***Dental Hygienist during a dust storm
in front of the Dental Clinic, near Kabul***

Hospital to provide emergency dental care to the Canadian force.

The harsh climate with extreme temperatures (usually in the 40 Celsius range), dry dusty conditions and frequent high winds posed a challenge. During this six-month rotation, the dental team was called upon to fulfil its secondary roles of assisting the medical teams with mass casualties and of dental forensic identification when a friendly fire incident took four lives and wounded eight others.

A year later Canada once again committed troops to

Afghanistan. Op Athena was Canada's contribution to the NATO led International Security Assistance Force (ISAF), based in the Afghani capital of Kabul. 2,000 Canadian troops, including a dental team, deployed to Kabul in August 2003. As the dental equipment did not arrive until some time later, the dental team pitched in to help build their new camp, named Camp Julien.

During this operation, the dental team visited a local dental facility, the Phagman clinic, and noted that it had no means of sterilization and a very limited amount of consumable dental supplies; the only light source was a single bulb hanging from the ceiling. The team sought out donations of equipment and dental supplies from Canada and began distribution to this very needy clinic. The CFDS was able to identify surplus materiel from its many clinics and made a sizable donation. Future dental teams made further contributions to this charitable project.

Rotation 2 saw the Canadian Contingent downsized from 2000 to 600 troops. The camp became multinational, housing American, Belgian, Hungarian, Slovenian and even some Norwegian troops. The CFDS dental team was both welcomed and required. Throughout the tour they treated patients from every nation on the camp, civilian employees (Canadian, Nepalese, Indian), Afghan interpreters, civilians from the Canadian, British and American embassies, and even British troops flown in from Mazare Shareef for treatment.

In late 2005 the Canadian Contingent moved back to Kandahar and became the lead nation for a multinational hospital along with British and Dutch forces. The dental team on the ground found their patient pool had expanded from 600 to many thousands, and they spent long hours providing the most basic emergency care until other dental resources arrived. There are now three dental teams in place - an oral and maxillofacial surgeon and a general dentist from the CFDS and a general dentist from the Royal Army Dental Corps, along with their dental technicians.

1998 Ice Storm (Op RECUPERATION)

On January 4, 1998, an ice storm of epic proportions began in east central Canada. After about 80 hours of intermittent freezing rain and drizzle - nearly double the normal annual total - the icefall stopped on January 8 and the temperature dropped sharply. The weight of ice brought down millions of trees, the roofs of large buildings such as barns and arenas, 120,000 km of power lines and telephone cables, 130 major transmission towers, and about 30,000 wooden utility poles. More than 1 million households (4 million people) lacked electricity, which meant no lights, central heating, running water, refrigeration or hot meals. Twenty-five people died, most of them from hypothermia.

As a result of fallen trees, broken power lines and rivers of ice blocking the roads, emergency vehicles could hardly move. The provinces of New Brunswick, Ontario and Quebec requested aid from the Canadian Forces and Op RECUPERATION began on January 8. It was the largest deployment of troops ever to serve on Canadian soil in response to a natural disaster and the largest operational deployment of Canadian military personnel since the Korean War.

CF members from across Canada helped provincial and municipal workers clear roads, rescue people and animals trapped by storm wreckage, evacuate the sick, shelter and feed about 100,000 people frozen out of their homes, and ensure that farmers had the

generators and fuel required to keep their operations going. Military engineers and technicians worked around the clock with hydro and telephone crews to repair and replace downed transmission towers and utility poles.

At the height of the crisis, Op RECUPERATION involved 15,784 deployed Army, Navy and Air Force personnel, including 3,740 Reservists. All three field dental platoons were deployed to the affected region to provide dental care to the numerous military personnel working to restore services. Treatment was provided from mobile dental clinics until base dental clinics could reopen.

2003 Forest Fires (Op PEREGRINE)



Mobile Dental Clinic in support of Op Peregrine, Okanagan Valley, BC

Op PEREGRINE was the military response to a request for assistance by the Government of British Columbia in August 2003. At the height of the crisis, about 800 fires were burning in B.C. and tens of thousands of people had been ordered out of their homes. Eventually more than 2,200 Canadian Forces personnel were involved in fighting five of the worst fires over a 45-day period.

2 Field Ambulance Dental Platoon was deployed on Op Peregrine to provide emergency dental services to the CF personnel in location. Many of the reservists present had

deployed on very short notice, without the benefit of dental screening or treatment, and appreciated being able to access dental care in their camp.

United Nations Stabilization Mission in Haiti (MINUSTAH) 2004 (Op HALO)

From June to August of 2004, the Canadian Forces deployed about 500 personnel and six CH-146 Griffon helicopters to Haiti, as part of Op Halo, to assist the United Nations sanctioned multinational force in bringing stability to the country. A dental team was deployed to Haiti with Op Halo to provide dental services to CF members, as well as to RCMP and Canadian civilian employees. The detachment worked under canvas as part of the Advanced Surgical Team facility. Severe rainstorms flooded the tents on several occasions, but no damage was done to the equipment and the mission continued uninterrupted.

Summary

Since World War II Canadian Forces dental personnel have deployed integrally with every major Canadian expeditionary force, from Korea in 1950 to Afghanistan today. Our health care provider skills, along with our ancillary paramedical training, make us ideal partners with our Medical Branch colleagues in the provision of Integrated Health Services, anytime and anywhere.



CFDS Dental Technician spreading goodwill in Haiti

HISTORICAL BACKGROUND PART 2 – BRANCH MILESTONES

Royal Canadian Dental Corps Association (RCDCA)

The Royal Canadian Dental Corps Association (RCDCA) was founded in 1948 as the Defence Dental Association. It is a member of the Conference of Defence Associations, which advises the government, through the Minister of National Defence, on matters concerning the Canadian Forces. Currently the primary role is to act as a link between retired RCDC/CFDS members and the active component of the Dental Branch. Initially membership was limited to ex-officers of the RCDC with wartime experience, but now includes any serving or former member (officer, non-commissioned member or civilian) of the RCDC or CFDS. The RCDCA has limited resources but supports Dental Branch activities, particularly with respect to preserving Dental Branch heritage.

Canadian Forces Dental Services School

Provisions were made for each corps to have a school for training personnel; the RCDC School was located in Ottawa and training commenced in Aug 1947. The school remained in Ottawa until 1957 when it was moved to Camp Borden, a short drive north of Toronto, Ontario. The Minister of National Defence formally opened the new school

on 13 June 1958. The RCDC School was re-designated the Canadian Forces Dental Service School (CFDSS) in 1969, following integration of the CF, and is still very active. In 2003, the CFDSS and the CF Medical Service School (CFMSS) were amalgamated into the Canadian Forces Health Services Training Centre (CFHSTC). The first Commandant of the combined school was a lieutenant-colonel dental officer.

At one time all dental auxiliaries (hygienists, assistants, lab technicians, equipment repair technicians) received their technical training at CFDSS: only dentists required training from a civilian university. Now all technical training is done at an accredited civilian college or university, and CFHSTC teaches trained personnel how to perform their professional duties in the military environment and also offers continuing dental education and other clinical upgrade training to military dental personnel.

Every member of the dental services has either served on staff or has attended courses at the school. It is fitting that the school in Borden has become the 'home station' for the Dental Branch.⁴ The museum at the school houses many artifacts of historical importance to the dental services.

Dental Hygienists

Dental hygienists were introduced into the Corps in 1956. The first two hygienists employed were female Royal Canadian Air Force members who had received dental hygiene training in England. One of these, Flight Sergeant Pat Savage, later became the first peacetime female Warrant Officer in the RCAF. Another dental hygienist, June Patterson, later became the first female in the Canadian Forces to hold the rank of Chief Warrant Officer, the highest non-commissioned rank. The first class of dental hygienists was trained at the RCDC School in 1956. The military trade was called 'dental technician clinical', as civilian hygienists were trained in universities and held a Registered Dental Hygienist (RDH) diploma and the RCDC tradespersons could not meet these requirements. Despite the nomenclature, military hygienists had skills equal to or greater than their civilian counterparts and many successfully entered civilian practice later in life.

Curling Bonspiel and Golf Tournament

In 1963 Colonel CE Purdy, then Commandant of the RCDC School, suggested a corps wide bonspiel be held. With the approval of DGDS, the first RCDC Bonspiel was held in March 1963 with 12 rinks (teams) participating. Not only was the event such a huge success that it became an annual event, but between the curlers and non-curling school staff and students in-house, it was the largest post-war gathering of RCDC personnel⁴. The curling bonspiel is now an important component of the CFDS Annual Winter Working Group. Following the success of the curling bonspiel, the RCDC School also hosted an RCDC Golf Tournament in September 1963 with 47 golfers taking part⁴. It was equally successful and also continues to the present day, now hosted by the RCDCA each autumn.

W.R. Thompson Trophy

Brigadier-General (retired) WR Thompson donated a trophy to the CFDS, which is presented to the member or group who makes the most significant contribution to the land, sea, or air operational role of the CFDS during the last calendar year, or over the past several years. The award recognizes accomplishments in training, operations, development of doctrine or any other aspect of the CFDS operational role. Presented annually at the Winter Working Group mess dinner, many fortunate recipients have had the trophy presented in person by Brigadier-General (retired) Thompson.

Establishment of CFDS Branch Chief Warrant Officer

During the first DGDS/Chief Warrant Officer's Conference held in Ottawa on 3 May 1983 the suggestions was brought forward that a CFDS Chief Warrant Officer (CWO) be appointed and serve on the staff of the division of Dental Services. In July 1992 the Director General Dental Services appointed CWO Mark Arbour as the first CFDS Branch CWO. CWO Arbour was posted to CFB Halifax where he also fulfilled the duties of CFDS Senior Dental Laboratory Technician. The next two Branch CWO were posted to CFDS in Borden, Ontario and also filled the duties of School CWO.

When the establishment of the CFDS was downsized in 1996, only one CWO position remained. The Director Dental Services recognized that this position was better placed in Ottawa. CWO David Lamb was posted to Ottawa in July 1997 and the CFDS Branch CWO became an established position.

Canadian Dental Association (CDA)

The Canadian Dental Association is the national body representing dentists in Canada. The CDA works closely with all provincial dental associations and the Canadian federal government to promote oral health and the dental profession. The CDA is also a corporate member of the Fédération dentaire internationale (FDI), the equivalent world body. The Dental Branch and CDA have been long-term partners: CDA recommendations to the government of the day were responsible for the formation of the CDAC and CDC, and the CDA nominated all senior CDC officer appointments at the time. In 1982 Brigadier-General (retired) WR Thompson was elected as president of the CDA. Of significance, of the 26 Voting Members of the CDA, there is a permanent position designated for the Director Dental Services, giving the CFDS equivalent status to the provincial dental societies.

Canadian Dental Assistants' Association (CDAA)

At the 2005 Canadian Dental Assistants Association Annual General Meeting there was a unanimous vote that the CFDS be granted the status of Corporate Member of the CDAA. This marked the formalized beginning of a parallel and complimentary strategic partnership to the long held partnership CFDS Dental Officers have had with the CDA. To mark this formal association, the CDAA organized donations from manufacturers to

assemble 2,000 oral health care kits for the Canadian troops in Afghanistan, which were delivered during 'Dental Assisting Recognition Week' in 2006.

2005 SDFDS World Military Dental Congress



SDFDS Social Day: Director Dental Services and the Dental Branch Colonel-Commandant inspect the Compagnie Franche de la Marine, after a re-enactment of this historical regiment preparing for battle in the 18th century.

two meetings of the international SDFDS executive, and a social day showcasing the heritage and military culture of Canada.

In August 2005, the CDA and Ordre des dentistes du Québec (ODQ) hosted the 2005 FDI World Dental Congress in Montreal, Quebec. Traditionally, the FDI Section of Defence Forces Dental Services (SDFDS), which is the military component of the FDI, holds a Congress of uniformed dental professionals immediately prior to the World Dental Congress. Thus, the CFDS hosted the

SDFDS World Military Dental Congress in Montreal during August 2005. This event consisted of a three-day programme that included two days of scientific presentations,

The theme of the 2005 World Military Dental Congress was "Evolution in Military Dentistry." Sixty foreign delegates from 21 countries, many of them the chiefs of their respective Dental Corps, and 30 CFDS dental officers attended. The scientific sessions featured 22 presentations from delegates representing 12 countries and included four Canadian presenters.

Colonel Commandant

The Colonel Commandant of the Dental Branch is an honorary appointment granted by the Minister of National Defence, on the recommendation of the Director Dental Services, to a distinguished former officer. A ceremonial position, the Colonel Commandant acts as an ambassador for the Dental Branch and frequently attends branch events and ceremonies to foster esprit de corps, wearing the uniform of a Dental Branch colonel. The first Colonel Commandant, Brigadier Frank Lott, was appointed in 1947. Colonel William MacInnis, a retired CFDS dental officer, is the current Colonel Commandant of the Dental Branch. He served as Dean of the Faculty of Dentistry at Dalhousie University for ten years, and is currently the Registrar of the Nova Scotia dental regulatory authority.

Colonel-in-Chief

In 2006, the Canadian Forces Dental Services was delighted to be granted Royal Patronage for the first time in its 90-year history. Her Royal Highness Birgitte, the Duchess of Gloucester, accepted the honorary appointment as Colonel-in-Chief of the Canadian Forces Dental Services from Queen Elizabeth II in January 2006. While the Duchess of Gloucester is patron of a large number of organizations, many of which have medical, educational or welfare connections, including the Royal Army Dental Corps, this appointment is her first affiliation with the Canadian Forces.

References:

1. *Canadian Dental Association 1902-2002 – A Century of Service: Military Dentistry (Part Five of a Series)*, Doctor Ralph Crawford, 2002.
2. *A-MD-007-089/JD-000, Canadian Forces Dental Care Program*, 18 May 2004.
3. *The Story of the Royal Canadian Dental Corps*, Lieutenant-Colonel H.M. Jackson, MBE, ED, 1956.
4. *40 years of Progress: The Royal Canadian Dental Corps and the Canadian Forces Dental Services*, Colonel (Retired) D.H. Protheroe, DFC, CD, 1989.
5. *Canadian Forces Dental Services – 100 Years of Service*, Colonel Scott Becker, CD, QHDS, et al, 2004.