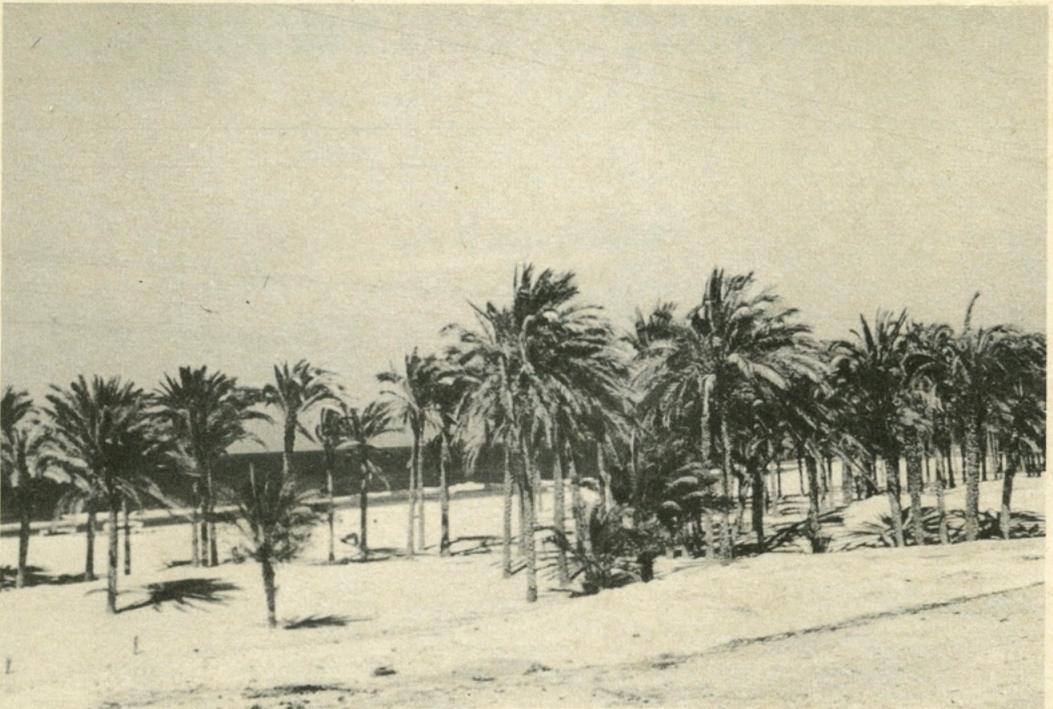


The

**ROYAL CANADIAN
DENTAL CORPS**

Quarterly



VOLUME 7 NUMBER 2

JULY 1966

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The RCDC Quarterly

Published by authority of Brigadier KM Baird, Director
General of Dental Services for the Canadian Forces

Editorial Board: Col BP Kearney
Lt-Col G MacDougall
Major JVP Chatwin

Subscription Rates

The RCDC Quarterly may be subscribed for at \$4.00 per
year by writing to:

Director General of Dental Services
for the Canadian Forces,
Canadian Forces Headquarters,
Ottawa 4, Ontario.

Cover Photograph

The beach at El Arish - Egypt

CANADIAN DENTAL DETACHMENT (UNEF) MIDDLE EAST

Major A.L. Kelland, CD, DDS, BA, BEd

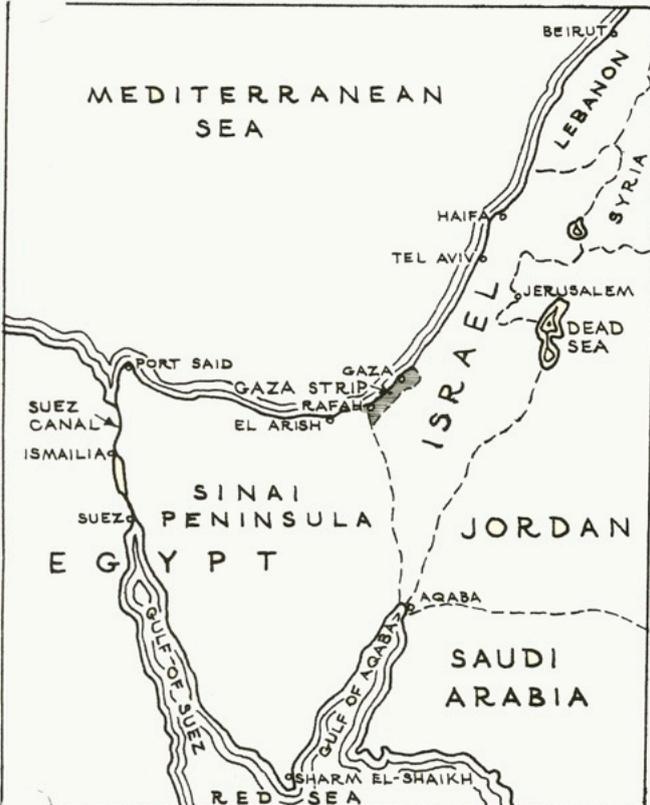


BACKGROUND

Canadian Forces have formed a component of the United Nations Emergency Force (UNEF) in Egypt ever since its inception approximately ten years ago. Some readers may wonder why it became necessary to form UNEF, and why Canada has taken a particularly active part in its function. A brief history of events leading to the Suez Crisis of 1956 seems appropriate.

The Jewish race has had a troubled history for many centuries. Palestine, that narrow strip of land hemmed in by the Mediterranean to the West and to the East by Lebanon, Syria, Jordan and Egypt, was for many years a part of the Ottoman - Turkish Empire. It was liberated during World War I and the League of Nations granted Great Britain a mandate to govern and administer the territory for a thirty-year period. One of the terms of the mandate was the implementation of the "Balfour Agreement", the main tenet of which was the establishment of a national home for the Jews in Palestine.

In 1948 Great Britain relinquished her mandate, withdrew her troops and the United Nations established the State of Israel. Since that time there has been no real peace between that country and its Arab neighbours by whom it is virtually surrounded.



Israel occupies much of the territory previously called Palestine. With the formation of the new state thousands of Arabs who had shared the area with the Jews for generations were either forced or persuaded to move. These refugees now live in concentrations in Lebanon, Jordan, Syria and the Gaza strip. Although the United Nations Relief and Works Agency (UNRWA) assists them by providing food, shelter, clothing and attempting to rehabilitate them, they are an unhappy group of people thwarted in their efforts to return to what they consider their homeland, and purposely not integrated and settled in the countries in which they exist. This situation helps to provide a continuing contentious problem used by the Arab states to maintain a sense of unrest and pressure on Israel. Approximately 300,000 of these Palestinian refugees live in the Gaza strip alone.

Following the establishment of the State of Israel, until the first of January 1949 there was open warfare between Jews and Arabs. Armistice agreements were negotiated between Israel and its four Arab neighbours with the assistance of the United Nations Acting Mediator on Palestine. For several years these armistice agreements prevented major hostilities from being resumed, but they proved inadequate to prevent civilian and military raids across the borders. On the one hand the Arab states continued to regard Israel as an illegal creation whose very existence they believed to be a threat to their own economic and political security. On the other hand Israel saw what she believed to be her just right to live and develop threatened by inveterate Arab hostility, including threats to exterminate her.

Among the obstacles to development which the Israelis encountered was an effective economic boycott imposed by the Arab States, in particular the Egyptian action in denying the use of the Suez Canal to Israeli ships and to ships of other nations carrying oil and certain other cargoes to or from Israel. In 1951 the Security Council of the United Nations adopted a resolution calling on Egypt to end its embargo on shipping bound for Israel. This issue was raised again later but no resolution was forthcoming because of the Soviet Union's use of the veto.

By a presidential decree in July 1956 the Egyptian Government nationalized the Universal Company of the Suez Maritime Canal. This sudden arbitrary move to expropriate the Suez Canal aroused fears that its future use by all nations in peace and war without discrimination had been prejudiced. The right to use this waterway, constructed by international agreement and with international co-operation had been guaranteed by treaty. Steps organized by France, Britain and the United States to bring about a satisfactory solution to the problem failed.

Provoked by the seizure of the Canal and with evidence of active Russian support in Egypt, on October 29 Israeli forces launched a major attack against her and advanced deep into the Sinai Peninsula. Britain and France called upon Israel and Egypt to cease hostilities and announced that unless the combatants complied with this ultimatum and withdrew their forces ten miles from the Suez Canal, British and French forces would intervene. They stated that the outbreak of hostilities "threatens to disrupt the freedom of navigation through the Suez Canal, on which the economic life of many nations depends." The ultimatum was accepted by Israel whose forces had come within ten miles of the Canal, but was rejected by Egypt; and following that rejection the British and French forces intervened by air and later on the ground.

Canada's policy at this time was to try to stop the fighting by urging United Nations action. In the UN General Assembly Canada sponsored a resolution calling for a plan for setting up an emergency international United Nations police force with the consent of the governments concerned. On November 4 the Emergency Session approved a resolution sponsored by Canada, Columbia and Norway which endorsed the Secretary - General's plan for a UN police force and appointed a Canadian, Major General E.L.M. Burns as Chief of the United Nations Command with authority to organize an international force. The function of the force was to secure and supervise the cessation of hostilities, to police the Zone between opposing forces and prevent the recurrence of the fighting.

CANADIAN PARTICIPATION

Prime Minister St Laurent made the following announcement November 7 on Canada's participation in the United Nations force for the Middle East: "...the Canadian Government has agreed to make an offer of a Canadian contingent to the Emergency International United Nations Force for the Middle East...of battalion strength, augmented by ordnance, army service corps, medical and dental detachments to ensure that the battalion group is self-contained and can operate independently from a Canadian base."

The main body of the Administrative Group (240 all ranks) concentrated at No 25 COD Montreal. Included within this group was a dental detachment, composed of - Major FS Sills, Sgt M Fediuk, Sgt C McFadden and Pte G Lepire (RCASC attached driver). This marked the formation of the Canadian Dental Detachment (UNEF) which has been serving with the Canadian troops in the Middle East since that time.

Transportation to Egypt from Montreal was by RCAF 426 Squadron. En route stops were made at Gander, Lajes Azores, Gibraltar and Naples. From Naples the group departed by Swiss Airlines for Abu Suweir, Egypt.

ABU SUWEIR

The Canadian UNEF troops on arriving in Egypt were billeted in part of an abandoned RAF station at Abu Suweir, located 15 miles West of Ismailia and about 60 miles East of Cairo. Accommodation and sanitation facilities were in a deplorable state of disrepair. The immediate problem was one of cleaning up and making the accommodation habitable. Canadian OCs were advised that stores and supplies would be requested through UNEF Headquarters and that support from now on would be a UN responsibility.

During those first hectic days when everything seemed to be in a state of confusion, a one-room dental clinic was set up and in operation within 24 hours after arrival. Major Sills used his field unit with Sgt Fediuk pumping the foot engine, and regular dental sick parades were held from the beginning.

After numerous "O" Groups, on November 29, better clinic accommodation was allotted to the dental detachment consisting of two 10' x 15' rooms with cement block floors, plaster walls, poor lighting and no plumbing. Everything was dirty and dusty, so detachment personnel set to work scouring and cleaning the accommodation. This all seemed rather futile, because two days later the clinic was moved to better accommodation - this time with two large and two small rooms with plumbing facilities, electric power, and storage space.

As far as dental stores were concerned, the detachment had on hand and in transit sufficient stores to last for a two-month period. These "in transit" stores arrived on 12 Jan 57 aboard HMCS Magnificent along with the main body of the Canadian contingent.

The role of the Cdn Dent Det at this time was to provide comprehensive treatment for approximately 1000 Canadian troops plus 100 Indian troops and any overflow or referrals from the other contingents.

Because of a shortage of dental supplies in the other national contingents the CO of the Cdn Dent Det was requested by HQ UNEF to compile an indent for dental stores and equipment for the six dental officers in UNEF, (Canadian 2, Columbian 1, Yugoslavian 1, Danish 1, Swedish 1) sufficient to last for a three-month period based on Canadian standards of treatment. The UNEF Commander appointed the CO of the Cdn Dent Det as Senior Dental Staff Officer (SDSO) for UNEF. In this capacity, among other added responsibilities, he became Senior Dental Advisor to HQ UNEF.

Dental stores and equipment purchased by UNEF were to be held at the Base Medical Equipment Depot with which the dental stores section was located, and all issues of dental supplies were to be actioned only on the authority of the SDSO.

Within the Cdn Dent Det itself, progress was being made on accommodation improvements. The Royal Canadian Engineers constructed laboratory benches and cupboards which were installed in the laboratory and clinic proper. The necessary rack stores including filing cabinets, folding tables, office desk etc. were obtained. The Canadians had the only lab facilities.

THE MOVE TO RAFAH

On March 1 the Israel Foreign Minister announced her government's plans for full and prompt withdrawal of Israeli forces from the Sharm al-Shaikh area and the Gaza strip. This announcement was made on the assumption that on the withdrawal of Israeli troops the United Nations Forces would be deployed in Gaza and that its takeover from the military and civilian control of Israel would be exclusively by UNEF.

When other UNEF contingents moved into the Gaza strip to take up their responsibilities, it was realized that the Canadian contingent, operating the maintenance area for all stores and equipment for UNEF, was too far removed from the rest of the Force. The excessively long lines of communication from Abu Suweir to the Gaza strip area taxed transport facilities and reduced its efficiency in supplying the Force.

An abandoned British army camp at Rafah, located in the Gaza strip, was considered to be adaptable to Canadian requirements and a move to that location was initiated.

The SDSO made a recce for dental accommodation at Rafah and selected a self-contained six room building which was in dire need of cleaning and repair. Every room was filled with trash and debris, all wiring and wall plugs had been ripped out, the doors, windows and sashes had been destroyed or stripped, and there were no plumbing facilities. Obviously the natives, many of whom must have been thieves to live, hadn't left any item of value in this abandoned British camp.



Building with burned-out appearance selected to become the dental clinic when Camp Rafah was taken over by Canadian Base Unit

The UNEF Base Medical Equipment Depot was to be located in a similar building adjacent to the dental detachment and the dental stores section was to be allotted a store room there. Dental and medical sleeping quarters were also available in a similar building within the dental detachment area.

As soon as the dental personnel had arrived in Rafah, a unit "self help" programme was instituted with the aid of civilian workmen. The clinic was cleaned and set up, screening and lumber were obtained for the windows and doors, water sumps started and latrines excavated. The engineers (RCE) installed electric wiring and equipment for the two treatment rooms. Power at this time was provided by a 2.5 kw generator supplied by the Ordnance Corps.

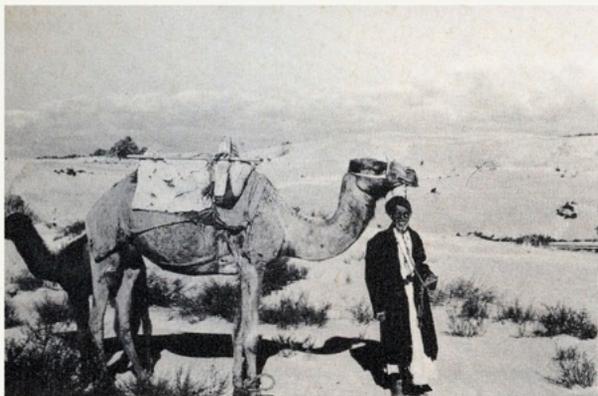
With the establishment of the Cdn Dent Det at Camp Rafah, a new chapter in its history was begun. From a makeshift existence at Abu Suweir there was now sufficient space to work and billet personnel as a complete unit. From that time, knowing that this would be "home" for the detachment during its time in Egypt, both the clinic and living accommodation were continuously improved, as was morale and overall working efficiency.

THE GAZA STRIP

During practically all of its ten year existence, most of the national contingents of UNEF including the Canadian Base Units have been located in or adjacent to the area known as the Gaza strip. A brief description of that will help to give readers an impression of conditions under which the Force

...es and carries out its tasks.

Prior to the formation of the state of Israel, this piece of land 28 miles long and three to seven miles wide was part of Palestine. It is desert country, bounded by the Mediterranean Sea to the West, by Israel to the North and East, and by Egypt to the South. The strip is the crowded home of about 400,000 Arabs, three-quarters of whom are registered refugees from what is now Israel and whose leaders insist that Gaza is only a temporary home. It might be considered as a pawn in Arab-Israeli hostility. This area was overrun by the Israeli Army during the 1956 invasion of Sinai. Many of the mines planted in the desert at that time are still there, and it is not uncommon for a camel to be blown up by stepping on one of them.



Familiar sight on the road between Rafah and El Arish.

As already mentioned, the many thousands of refugees in this area are supported by UNRWA which provides them with food, shelter and clothing, but they are an unhappy, discontented group of people, unable to support themselves on land which was incapable of providing for the previously smaller population. Neither

Israel nor the Arab states have attempted to rehabilitate them. Israel contends that for internal security and political stability the refugees cannot be admitted to the present state of Israel.

The city of Gaza is very ancient and is mentioned in the Bible. According to tradition it was here that Samson toppled the temple and in so doing, not only killed himself, but took many Philistines with him.

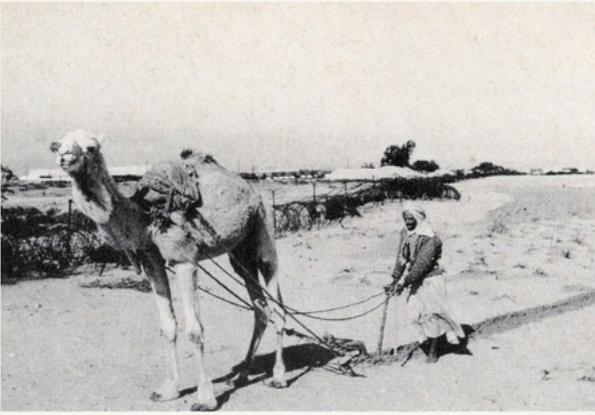
The boundary between the Gaza strip and Israel is fixed by a line known as the Armistice Demarkation Line. (ADL). Physically, the ADL is a three foot wide ditch running throughout its 35 mile length and is manned by 73 UNEF observation posts. Inhabitants along the ADL must remain a distance from it of 500 meters by night and 50 meters by day. The object of course is to discourage illegal entry to either country and prevent border raids and skirmishes.

The International Frontier (IF) separates Egypt from the Gaza strip and Israel. It starts at the Mediterranean Sea and for the first seven miles separates Egypt from the Gaza strip, then it intercepts the ADL and continues 120 miles south to the Gulf of Aqaba. Various sections of the ADL and IF are the responsibility of the national contingents of UNEF.

CAMP RAFAH

Camp Rafah covers an area of 260 acres of flat sandy desert. It is situated just inside the Egyptian border adjacent to the Gaza strip. The landscape is dotted by many whitewashed buildings and the main thoroughfares are paved. An outstanding landmark in the camp is its high water-tower which can be seen for miles in all directions. It supplies water pressure for the camp and is also a watering point for the surrounding Bedouin tribes. At certain times any day one can smell, see and hear groups of Bedouins with their camels and asses getting the daily supply of water (spillage from the tower) in earthen-ware jars.

Just over the perimeter fence and close to the dental clinic in Camp Rafah, an Arab tills the sand with his ancient plough.



CONSOLIDATION OF UNEF DENTAL SERVICE

With all UNEF contingents concentrated either within or near the Gaza strip, a firmer UNEF dental policy was requested by the UNEF Commander. This gave the SDSO added responsibilities which included:

1. inspection of UNEF dental detachments and assisting them in administration when possible;
2. provision, maintenance and disposal of dental records;
3. preparation of amendments to UNEF dental policy instructions, dental stores instructions, and a catalogue to dental stores.

At that time national contingents from the following countries had dental detachments: Canada, Norway, Denmark, Sweden, Columbia, Brazil and Yugoslavia.

In November 1957 the Cdn Dent Det's strength was increased so that it included three dental officers, three dental assistants, two laboratory technicians, one clerk (admin) and one storeman.

TREATMENT RESPONSIBILITY OF CANADIAN FIELD DENTAL DETACHMENT

The Cdn Fd Dent Det provided comprehensive dental treatment for all Canadian personnel in UNEF including 115 ATU (RCAF) at El Arish and smaller groups at various distant points:- the RCAF Group, Naples (closed down Jan 58); RCASC Group, Port Said; and the RC Sigs Group, Sharm al-Shaikh, Egypt. Treatment was also provided for the Indian contingent and for the International Staff (civilians) of UNEF and UNWRA. Local native employees were given emergency treatment. The Cdn Dent Det thus provided treatment for approximately 2500 personnel. Complete, comprehensive dental treatment has always been available at the Canadian dental clinic. On this account many referred cases considered beyond their scope have been accepted from other contingent dental officers. Much laboratory work has been done for the other contingents by the Canadian detachment.

The recent return to Canada of "A" Squadron, 8th Canadian Hussars (Princess Louise's), marked the end of nine years of desert patrols for Canadian Reconnaissance Squadrons (RCAC) based at Rafah. The number of Canadian troops in Egypt has been reduced to approximately 800. This, along with other reduced commitments prompted a corresponding reduction in the Detachment of one officer, one assistant and one technician (lab).

Since 1956 the clinic working day has fluctuated from a full day to half a day, determined by the weather and seasons of the year.

ACCOMMODATION

Both the clinic and living quarters for the Detachment have been cont

ously improved since they were occupied in April 1957. While most of the basic construction has been done by the Engineers (RCE), many improvements within the living quarters have been done by detachment personnel during off duty hours.



A view of the dental living quarters for the men. The clinic is a similar building to the right of this one, and between the two buildings there are trees and shrubs.

Since those early days when foot-engines were pumped and plumbing was non-existent, Rafah now has a reasonably well equipped clinic. The list of facilities and equipment installed since that time includes: the clinic wired with 110 and 220 volt lines, fluorescent lighting, a dark room, air conditioning unit in the laboratory, dental cabinets, operating lights, hydraulic dental chairs and airtors. The Canadian Detachment is more fortunate than others in UNEF in that some items of equipment have been supplied from RCDC resources.

In the OR's quarters, among other improvements, false ceilings were installed to make them cooler and the verandah was screened in, thus allowing the men to sleep out-doors during the warm summer nights without being molested by mosquitoes.

RECREATION AND LEAVE OPPORTUNITIES

During the summer season most Canadian personnel take advantage of the shorter working hours and spend their afternoons on the lovely sandy Mediterranean beach close by. The natives apparently don't appreciate their beaches and don't believe in bathing, but Canadians and other UNEF personnel make good use of them. Camp Rafah boasts a newly constructed outdoor swimming pool adjacent to the dry canteen.

Within the confines of Camp Rafah there is an 18-hole golf course and this sport has proven very popular with dental personnel. There's no shortage of sand-traps on the fairways, and one doesn't have to worry about replacing divots.

Softball, volley ball, badminton and tennis are also played as inter-unit sports both within camp and between the other national contingents.

Evening recreation is largely confined to an outdoor movie or to other mess activities such as bridge, cribbage or darts.

While in Egypt, every serviceman qualifies for one month's leave which must be taken while there. This leave is usually taken in two-week periods at the organized leave centers. The summer leave center is located in Beirut, Lebanon, and the winter leave center in Cairo. There is no charge to UNEF personnel for accommodation and meals at these centers and tours are arranged to places of interest for a nominal fee.

Besides the leave period described, the serviceman is allowed four organized tours, each of three or four days duration. These tours are not counted against leave. For example, a tour may be taken to Jerusalem on this basis. These tours, however, must be approved by UNEF Headquarters before permission granted to attend, and there is a minimum attendance requirement.



Canadians have served with UNEF in Egypt for nearly ten years. During that time there seems to have been little or no improvement in relations between Israel and her Arab neighbours. It seems likely that the Force will be required to remain there for some time to come.

RCDC personnel who have had the opportunity to serve in Egypt have found it an interesting experience. Not only have they had a chance to serve Canadian servicemen in a distant land, but they have also been able to meet and work with military personnel from several nations. The many ancient historical places within short range of Gaza, coupled with the liberal leave policy help to make what might be anticipated to be a lonely, boring tour of duty, one of great interest.

Personnel who have Served with the Canadian Dental Detachment - UNEF

<u>1956-57</u>	Sgt Minelli JV	Capt JOL Bourget
Major FS Sills	Cpl Lowery RJ	ASsgt Murley DT
Sgt Fediuk MM	Capt LA Reynolds	<u>1963-64</u>
Sgt McFadden EE	<u>1959-61</u>	Sgt Shechosky G
Sgt Mongeau JAM	Cpl Broomfield JWW	Sgt Sprathoff E-H
Capt DE Williams	<u>1960-61</u>	Cpl Vandervaart B
Sgt Brown AD	Cpl MacQuish G	Capt RJ Faturel
<u>1957-58</u>	Capt BA Gaudet	Major RJK Pyne
Major Kettlys HR	Major JCE McDonald	Cpl Johnson RB
SSgt Shaw VH	Sgt Petersen NC	Sgt Sapergia G
Sgt Arnsby WJ	SSgt Gagnon AJC	Cpl McDonald RW
Sgt MacDow CE	Cpl Gardner ADT	Capt JLY Cyrenne
Cpl Cordeau RNJ	Capt R Lanthier	ASsgt Roberts HW
Capt Ferry RG	Sgt Harmer WG	<u>1964-65</u>
Capt KN Munro	<u>1961-62</u>	Sgt Chase WF
Sgt Tapp JM	Sgt Reid HEW	Sgt Reid FJ
Cpl Jollimore GD	Cpl MacPhee JG	Cpl Wylie WL
Cpl Pentz RA	Sgt Christiansen JA	Capt AF Dailyde
<u>1958-59</u>	ASgt Martell CM	Major TC Gaudet
Cpl Semple A	Capt RDH Bunt	Cpl Hannay B
Sgt Tait AJ	Cpl Giles EW	Cpl Herrett TJ
Major G MacDougall	ASgt Drawe HK	Sgt Green AH
Sgt Bush BG	Major EJC Small	Capt JHG Charron
Sgt Casson DD	ASgt Boulanger JIJ	Sgt Shappee KR
Cpl Matheson RF	Capt FC Arpin	<u>1965-To Date</u>
Capt JJN Wright	Cpl Strub AL	ASgt Sabine-Pasley CStC
Capt FC Buschlen	ASsgt Schell EL	SSgt Raymond JE
Cpl Jennings GR	<u>1962-63</u>	Sgt Beattie ES
Sgt Dean MG	Sgt Storms GH	Capt JA Mattress
<u>1959-60</u>	ASgt Dancer G	Major JCRR Roy
Capt JS Davis	Capt GMD Conrad	Cpl MacLean LI
Cpl Eastwood CC	Cpl Moran DT	Cpl McKay DH
Cpl Jermain EA	Major AL Kelland	Cpl Lindsay RS
Sgt Crockett MD	ASgt Dion J	Capt RW Chernesky
Major DJ Carmichael	ASgt Fox F	ASsgt Kay JH
Sgt Shand G	Cpl Dumas FJ	ASgt Stenabaugh RH
		Cpl Eady NAJ
		Major GIJ Bisailon

PRESENT DAY CONCEPT OF DENTAL CARIES AND ITS CONTROL

Major W.A. Sugars, DDS



ACKNOWLEDGEMENT

This article is based on a series of two lectures delivered by Dr. L.S. Fosdick, Professor of Chemistry, Northwestern University, at the Montreal Dental Club Annual Fall Clinic 1965.

THE NATURE OF TOOTH ENAMEL

Present thinking concerning the control of dental caries revolves around the concept that the enamel of a tooth behaves like a semi-permeable membrane, and that it matures with time, becoming more resistant to the destructive effects of acid with age.

In order to appreciate what happens to the enamel of a tooth when exposed to the fluids of the oral cavity the nature of the exposed tooth structure must be understood.

Enamel is composed of two primary substances:

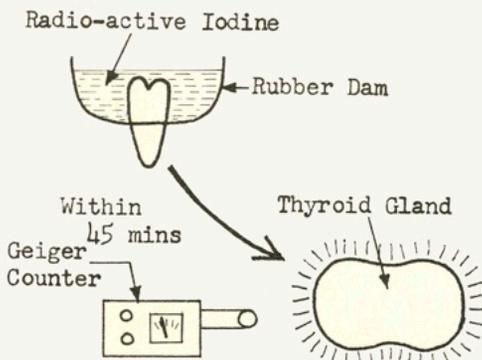
1. Enamel rods, which are dense and largely inorganic in composition and honey-combed in shape.
2. Inter-rod substance, which is more organic in composition than the enamel rods but also contains Ca, P and other minerals. This forms a sheath around the rods, binding them together.

When a tooth is attacked by caries it is this inter-rod substance that is destroyed, with the subsequent loosening and dropping out of the enamel rods. Some feel that the organic component of the inter-rod substance is first dissolved, while others feel that the inorganic component is the portion destroyed.

THE ENAMEL OF A TOOTH IS A SEMI-PERMEABLE MEMBRANE

The enamel of a tooth is a semi-permeable membrane. This has been verified in vivo and in vitro:-

In Vivo



If the enamel of a tooth in an experimental animal is isolated by means of the rubber dam and sealing wax and is then bathed with radio-active iodine for about forty-five minutes, the radio-active iodine will appear in the thyroid gland where it may be detected by geiger counter. This clearly demonstrates that the radio-active iodine has been able to penetrate the enamel, pass through the dentine, and via the circulatory system concentrate in the thyroid gland.

In Vitro

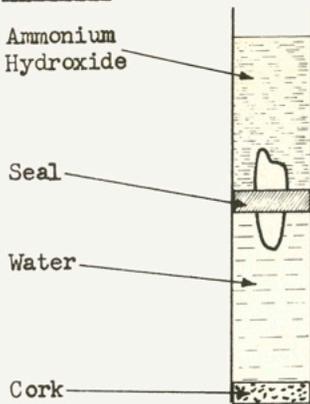


Fig. 2

If a sound tooth is placed inside a glass tube which is open at both ends so that the root portion of the tooth is completely isolated from the crown, and if water is placed in contact with the root portion, and ammonium hydroxide with the enamel portion, quantitative chemical analysis indicates that the usual laws of diffusion are obeyed. In general, the rate of diffusion is a function of age. The young tooth is much more permeable than the old tooth.

MATURATION

The enamel of a tooth matures with time and in so doing acquires a certain degree of immunity or resistance to dental caries. This is an observation that every dentist has made at some time or other. The simplest and most obvious reason is that with time all the pits and fissures where caries can start are drilled out and filled with amalgam or other filling material by the dentist. The other reason, neither so simple nor so obvious, is that the tooth has changed chemically.

If three perfectly sound teeth, one twenty years old, another ten years old, and a third an impacted third molar that has just been extracted and has not been exposed to the fluids of the mouth up to the time of its removal, are placed in three separate test tubes and the experiment as in figure 2 carried out; it will be found that the impacted third molar will have the fastest rate of diffusion and the twenty year old tooth the slowest, indicating that as the tooth gets older it becomes less permeable.

When a tooth erupts and comes into contact with the saliva, since there is an osmotic differential between saliva and the dental lymph at the D.E. junction, a migration of ions commences through the enamel.

If a membrane is homogeneous, the migration will take place through the so-called pores of the membrane. But if the membrane is heterogenous, as with enamel, one would expect that the migration would be selective and would occur through the lines of least resistance. In enamel, one might expect this to be through the less dense rod sheath and inter-rod substance.

Many ions such as Ca^{++} , Mg^{++} , CO_3^{\equiv} and PO_4^{\equiv} , during migration could become trapped in the enamel sheath and inter-rod substance. These ions could be adsorbed on the interface of the apatite crystals and could continue to calcify these areas. This may explain the marked decrease of permeability with age, and with it the increased resistance to the action of acid and dental caries.

CARIES AND DEAD OR DEVITALIZED TEETH

One of the enigmas of nature is that when alive, man's teeth often decay readily; whereas after death and burial his teeth are more resistant to the ravages of time and decay than are other parts of his body. The answer of course is that the non-vital tooth is not exposed to the infiltration of chemical substances because the osmotic differential is no longer active. The inorganic content of the tooth therefore remains relatively stable.

A devitalized tooth with a sealed pulp chamber does not exhibit character

dendronic or finger-like decalcification. It does decay, but does so on a broad even plane. A devitalized tooth becomes dehydrated and intensely brittle due to the absence of osmotic differential and the passage of fluids through the enamel.

THE ROLE OF FLUORINE

The action and reason for the effectiveness of fluorine can now be more readily understood.

When a tooth is exposed to fluoride ion, it penetrates the enamel following the lines of least resistance, i.e. the rod sheath and inter-rod substance. It penetrates only until it reacts with calcium, or the apatite interface or crystal. Thus, the distribution of fluoride in the enamel must be confined to the surface of the rods and to a variable depth along the sheath and inter-rod substance. The ions adsorbed on the interface of the apatite crystals apparently continue to calcify these areas and decrease the permeability of the enamel, thus accounting for the accompanying decrease in caries activity.

Hence, the artificial use of fluorine simply accelerates the maturation process so that it occurs at a much earlier age, thus inhibiting caries.

Whether fluorine is added to the water supply or used in tablet form it finds its way into the saliva and acts in the manner described.

Should gingival tissue recede rapidly, exposing tooth structure which has not benefitted from the maturing influence of saliva, rampant caries characteristic of "senile decay" may result.

THE ROLE OF SALIVA

Saliva is a super-saturated solution of calcium phosphate. The degree of immunity to caries in an individual is proportional to the degree of super-saturation of calcium phosphate in his saliva.

Normal passive saliva is slightly acid, with a pH of about 6.5, but the pH becomes alkaline when the salivary glands are stimulated and may reach 8.4. Active decalcification does not take place until the pH of saliva has dropped to 5.2.

Calcium phosphate in the saliva normally buffers acid before it becomes strong enough to decalcify the enamel of a tooth. It is evident that saliva affords protection from dental caries.

THE DENTAL FLAQUE

If a tooth with a well-formed microbial plaque inhabited with acidogenic micro-organisms is exposed to concentrated fermentable sugar, the sugar will penetrate the plaque to the tooth surface and ferment to form lactic acid with an H^+ potential of about pH5. Under these circumstances the hydrogen ion (H^+) will migrate into the enamel through the lines of least resistance, the sheath and inter-rod substance. If the latter were composed of pure apatite, one could predict the sequence of events, but it is not pure apatite, and it is the sequence of events in this area which causes much controversy among investigators. In any case, the activity of H^+ is apparently inhibited if the process of maturation already described has occurred.

CONTROL OF CARIES

When considering the control of acid within the plaque, it should be remembered that it is formed within 15 minutes after the ingestion of sugar and

starch, and that it has become dissipated by reaction or infiltration 30 minutes later. This indicates the futility of brushing teeth to prevent caries at time other than immediately after eating.

If it proves to be embarrassing to be excused for the purpose of brushing ones teeth when in company, one can at least accomplish part of the purpose by unobtrusively rinsing with water and swallowing it. The purpose is to rid the mouth of material that can form acid.

The elimination of sugar and starch from modern diets is impracticable. Therefore, the only alternative is to render the enamel more resistant to acids in the plaque by accelerating its maturation rate; and the easiest and best method is by incorporating trace quantities of fluorine in drinking water.

FLUORIDATION

The concentration of fluorine in the water supply should be one part per million, and there is evidence that the resulting reduction in caries may be as high as 80%. It is of most benefit to children because, as already emphasized, the enamel of young teeth is much more permeable than that of older teeth.

To those who object to the incorporation of fluorine into a water supply "because it is a poison", it should be pointed out that fluorine is present in many natural sources of water, and also occurs in a large percentage of food substances.

TOPICAL APPLICATION OF STANNOUS FLUORIDE

The topical application of stannous fluoride is effective in controlling dental caries, particularly when applied to children's teeth and to those with incipient carious lesions.

After stannous fluoride has been used, the dentist should be aware of the fact that the dark line which sometimes appears around a restoration may not be secondary caries but a stannous fluoride stain. Stannous fluoride stains carious enamel.

FLUORINE TABLETS AND FLUORIDATED TOOTHPASTE

Fluorine, when ingested into the body is subsequently secreted in the saliva, and the action of saliva on enamel has been described earlier in this article. Fluorine should be administered in tablet form to children who don't benefit from a fluoridated water supply.

A final aid in caries control, added so that none of the methods at ones disposal will be overlooked, is the use of fluoridated toothpaste which has proved to be of some value.

SUMMARY

Some of the present day thoughts regarding the process of dental caries have been reviewed, the theory outlining the action of fluorine in caries inhibition described, and methods for the control of caries endorsed in view of the scientific background knowledge presently available.

"The paradox of our age is the enormous gap between our scientific knowledge and skills on the one hand, and our organizational and financial arrangements to apply them to the needs of men on the other."

—The Royal Commission on Health Services in Canada

THE CLINICAL GROUP LECTURE

WO2 Fortin R.G., CD
WO2 Franzgrote H.E.G.

Clinical lectures and demonstrations were added to the dental health education program at RCAF Station St Jean, a training establishment, with the aim of intensifying the dental health message for the newly inducted trainee and to further motivate him toward better oral hygiene habits. The lectures are based on established and proven techniques of individual chairside instruction and are given to groups of five to fifteen persons in English and French by a Technical Dental Therapist and a Dental Technician Clinical.

Introduction of this new technique followed a thorough investigation and evaluation of existing methods during which systematic questioning of the recruits revealed a serious lack of retention of the dental health facts given to them during their period of induction.

For several years now a film and lecture have been presented to all new trainees during their initial week in the RCAF, together with a routine dental examination on enrolment. While dental health instruction leaves a definite impact at this time, it nevertheless is in direct competition with a number of ideas and conditions peculiar to the Armed Forces, some of them of elementary military and sociological importance to the individual adjusting to a completely new mode of life. It must be borne in mind that the object of the young man joining the Service is to become part of it first of all. His primary needs are food, clothing, shelter, understanding his place in the organization and fitting in. Only after his personal problems are settled will he respond to and endeavour to participate in those efforts which will result in his becoming an efficient, useful and dependable member of the Armed Forces.

A definite need can be filled by the clinical group lecture, a large number of servicemen motivated and specific problems in the individual emphasized by dramatic demonstrations. Familiarization with the clinic environment and relaxed participation in the discussion of oral hygiene problems and home care measures stimulate positive interest.

The clinical lectures are supervised and arranged in close coordination with the Senior Clinician at RCAF Station St Jean and the Dental Public Health Officer 15 Dental Coy. All RCAF departments concerned responded with interest and made groups of five to fifteen trainees available for this program.

The lecture itself is presented informally, comprising a discussion of dental caries and prevailing periodontal conditions within the group over a one hour period. No definite pattern is followed. The patients are grouped around the chair. This close proximity provides complete control over the group and incites interest by demonstrating modern techniques in today's dental practice. It would be deluding oneself not to realize that concepts of many of these young people about dentistry can still be found to be more than a generation behind the times. In small groups such as these the psychological barrier to coming forward with honest questions in front of others is covered and one can actually note a competition within the group to make intelligent inquiries. This aroused interest is then taken advantage of by seating each person in the chair for a dental hygiene and health examination. Each patient is given the opportunity to decline being examined in the presence of his com-

rades should he consider this an objectionable intrusion of his privacy. However, out of over one thousand patients who attended these lectures not one refused cooperation or shown signs of resentment. The opposite has been true, especially when dental disease in the dramatic form of rampant caries and progressive stages of gingivitis could be practically demonstrated.

Dental hygiene problems are discussed insofar as they are of general individual concern. Good illustrated charts are used together with models and dental health literature. The presence and removal of supra gingival calculus is demonstrated along with other accretions on the teeth and against the gingiva. The application of good oral hygiene measures is stressed repeatedly and directly related to any dental problems evident in the group. Those patients requiring urgent professional attention, and most are not aware of it, are advised to immediately arrange dental appointments. Dental health is then explained in terms of general health which are more familiar to most young people.

A question and answer period usually uncovers some excuses for poor oral hygiene habits. The need to be resourceful and how to compensate for the "lack of time and facility factor" during stress and strain periods, such as basic military training, is pointed out. It may be of interest to note in this context that, as in modern management techniques, the simplest solution is not necessarily the most obvious to every patient. For example, a toothbrush does not occupy as much space as a pack of cigarettes in any pocket, and a cupped hand can serve as a vessel to drink and rinse from for want of a glass after meals or snacks.

After further impressing upon the young servicemen that knowledge provides a first line of defence against disease they are again urged to follow good oral hygiene practises, to take the dental health message home to their families and to discuss it with their friends.

Several names of the attending students were kept and follow-up questioning was conducted. The answers were very encourageing and according to one young recruit they were not only following an improved brushing schedule, but in competitive emulation were checking each other for the proper brushing technique as well as at the sweet heverage machine.

SUMMARY

The Clinical Group Lecture in dental health has been proven to be a useful tool in Public Health Dentistry at this RCAF Station. The benefits of this technique extend not only to the patient as an individual but to his family and friends in civilian life. It is assumed and can be proven that a better attitude toward health in general was initiated in the young serviceman, thereby easing the workload for the Dental Officer in the RCDC and possibly for civilian dental personnel across the nation, wherever these young men happen to be in the years to come. It is emphasized that by educating the individual in this respect he will become aware of the waste in terms of time, money and inconvenience through neglect; and by practising the principles taught will improve his physical, emotional, economic and social well being.

"If circumstances force a choice between utilizing time for cleaning the teeth or for patient education, the latter would serve better."

--- Glickman I - Preventive Dentistry Symposium July 1964

SYNOPSIS OF SIMPLIFIED ENDODONTICS

Major W.H. Murray, CD, DDS



The aim of this synopsis is to familiarize the general practitioner with a simplified method of practising endodontics - the purpose of which is to give confidence that endodontics can and should be made a part of routine general practice. This can be accomplished by logical thinking, the elimination of unwarranted procedures, and placing confidence in the natural defences of the body. The approach to a more simplified method of endodontic treatment depends to a large extent upon confidence placed in new concepts.

The greatest advance in endodontics in recent years has been the re-evaluation of culture technique. Until this came about, there could be no such a thing as simplified endodontic treatment. Studies 1,2,3,4 have shown that culture technique is of very limited value in the practice of endodontics, and therefore there is seldom need for the stringent adherence of the so-called sterile technique, the four folds of the sterile towel, and the time-consuming acrobatics and flourishes of the flaming of instruments, the dipping of files, and the swabbing of the rubber dam.

To-day culture technique gives way to a dependency on the natural defences of the body such as the inflammatory reaction and the granuloma-sterile technique admits more to surgical cleanliness, protecting as it must against cross-infection - and the rubber dam is respected more as a protection against the inspiration of instruments, and tissue damage from medicaments, than as an adjunct to sterile technique.

The final digression from culture technique came about in 1963 when Seltzer, Bender, and Turkenkopf² published the results of their studies on this subject. They found that after endodontically treating approximately 3,000 teeth, some yielding positive cultures and others yielding negative cultures at time of filling, no statistically significant difference was observed in the prognosis or success of repair in either group. They also found that after preparing a number of teeth for filling by obtaining negative cultures, when a final culture was taken just prior to filling, 16.6% of these teeth now yielded positive cultures.

Advocates of culture technique must admit to as many reasons for false negative cultures as for false positive cultures, and that the results derived from culture technique do not indicate the number, type nor virulence of the bacteria present, nor do they give any indication of the resistance or lack of resistance of the body to these bacteria. In short, culture technique is an admirable undertaking in theory but misleading in practice. On the other hand it is becoming more apparent day by day that nature plays an important part in the prognosis of treatment of the infected tooth. It is now considered that the area adjacent to the apex of a non-vital tooth is more often an area of contamination rather than an area of infection, and the normal body response is the formation of the granuloma, a natural defence against the injurious factors within the root canal.⁵

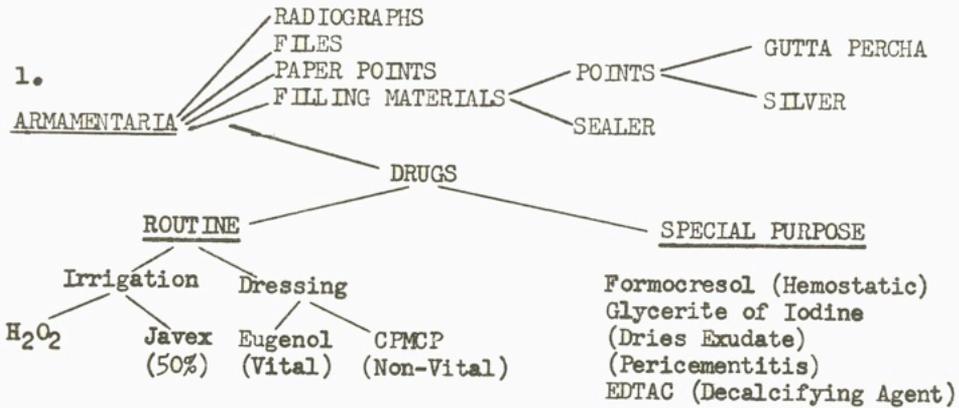
In brief, endodontic treatment is a matter of establishing drainage, cleansing the root canal, obturating the canal with a hermetic seal at the

apex, and thereafter placing a reasonable amount of faith in the reparative powers of the body.

Factors to be considered in this synopsis are:

- | | |
|-----------------|---------------------------|
| 1. Armamentaria | 4. Technique |
| 2. Diagnosis | 5. Differential Treatment |
| 3. Procedures | 6. Future Procedures |

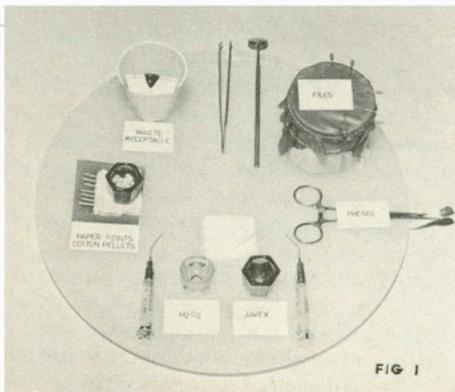
This article is to be considered simply as a refresher to renew interest, or to stimulate more production in endodontics in general practice and therefore it is considered sound policy to present the following context in graphic and abbreviated form in order to enhance rapid assimilation and correlation of the facts.



NOTE: Emphasis should be placed on filing and irrigation to lower bacterial count in canal, dressings cannot be depended on for this purpose, they simply inhibit the growth of bacteria between appointments.

Special purpose drugs are used only on the rare occasion although the chelating agent EDTAC recently has been recommended for routine use as an adjunct to the filing procedure.⁶

The tray set-up illustrated (Fig 1) enhances the use of peripheral vision during endodontic procedures. The tray may be rotated to suit each phase of the operation.



WASTE RECEPTACLE

- Paper Cup-Lip V^oD and Bent In.
- Dappen Dish for Ballast.

FILES

- Punctured in Rubber Dam Stretched Over Opening of Anaesthetic Can.

PHENOL

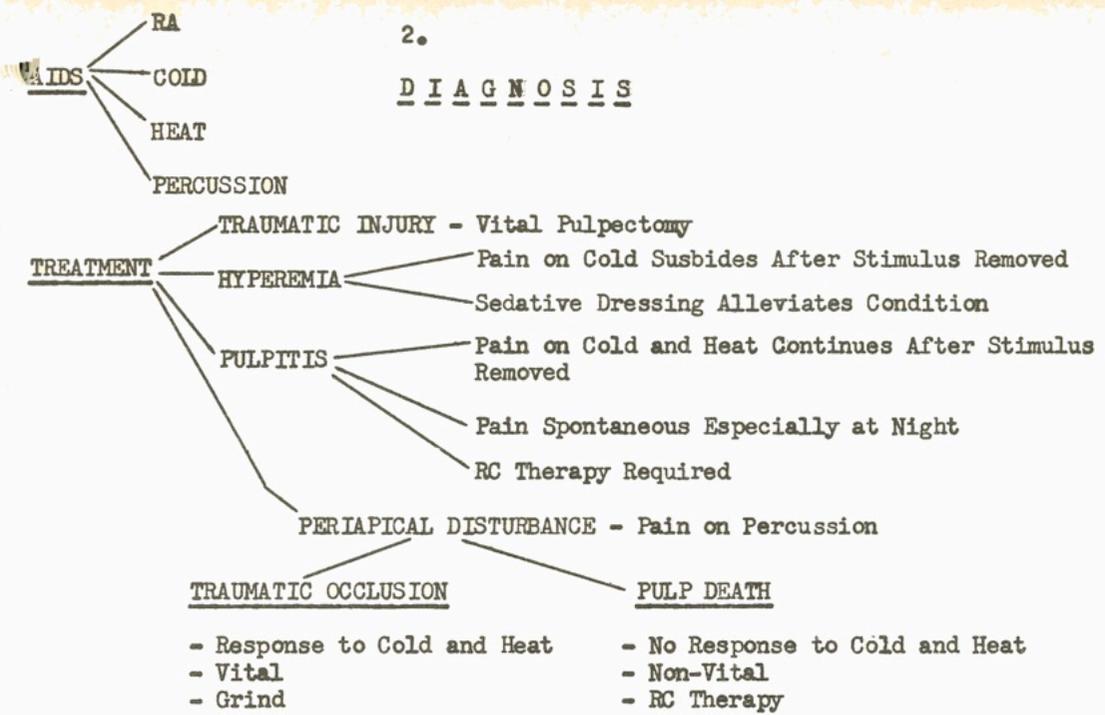
- On Cotton Roll Held in Haemostat.

PAPER POINTS and COTTON PELLETS

- Points (Paper or Gutta Percha) in Fold of Sponge on Rubber Dam Background.
- Pellets in Dappen Dish on Sponge as Ballast.

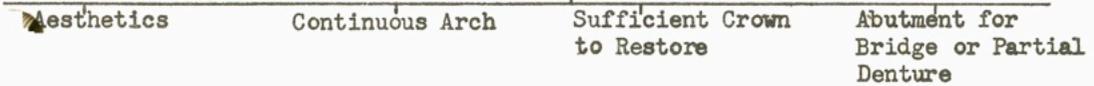
2.

D I A G N O S I S



SELECTION -

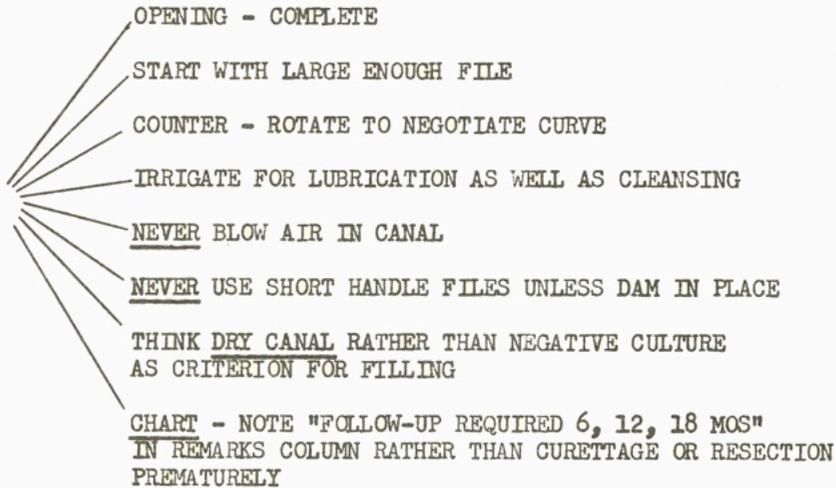
Is Tooth Worth Saving



NOTE: If a vitalometer is available, a final diagnosis is more strongly confirmed.

3.

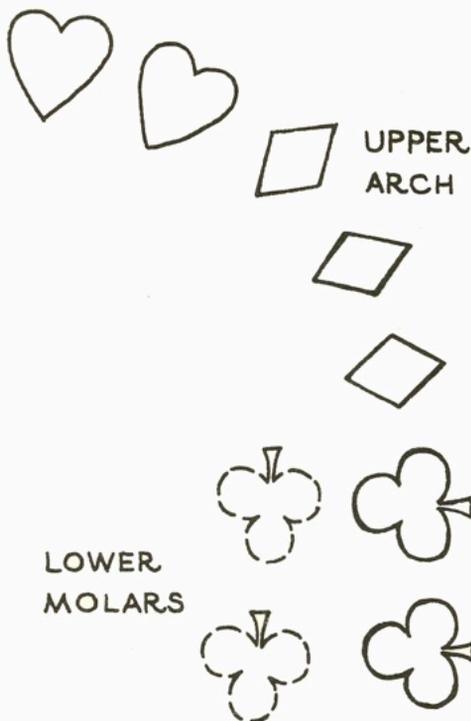
PROCEDURE



NOTE: Openings in anteriors must include pulp horns; and for proper access to canal, lingual ledge must be removed.

A fatality during root canal therapy has been attributed to the excessive use of pressurized air to dry canal⁷. Studies with experimental animals proved that the forcing of air into root canal at 35 PSI pressure caused death in three seconds.

OPENINGS



Outline of openings in the different teeth may be remembered by likening to bridge convention CLUBS, DIAMONDS, HEARTS. The analogy should be continued further by the realization that extensive SPADE work is required after opening, to meticulously cleanse both pulp chamber and canals.

4.

TECHNIQUE

(filling)

SILVER CONES PREFERABLE BECAUSE OF ACCURACY OF FIT AT APEX

LATERALLY CONDENSE LARGE ENOUGH CANALS

LARGE OPENINGS - NOTCH AND WRIGGLE OFF SILVER POINTS

SMALL OPENINGS - IMBED IN CEMENT AND CUT THROUGH

VITAL CASE - FILL $1-1\frac{1}{2}$ MM SHORT OF APEX (APICAL CONSTRICTION)

NON-VITAL CASE - FILL $\frac{1}{2}-1$ MM SHORT OF APEX

CLEAR CROWN TO LEVEL JUST BELOW FREE MARGIN OF GINGIVA

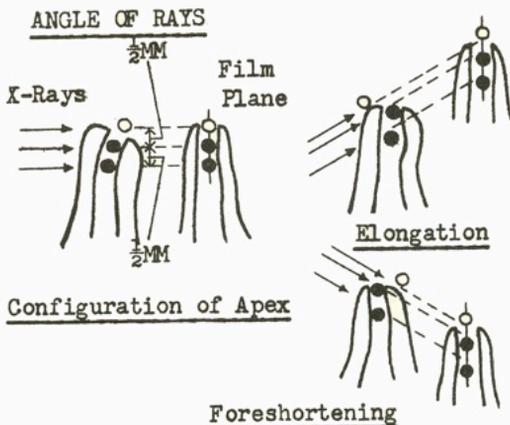
SWAB OUT CROWN WITH DEHYDRATING SOLUTION
3 PARTS ETHYL ALCOHOL (95%) - 1 PART CHLOROFORM

ANTERIORES - FILL CROWN WITH SILICATE (NO CEMENT)

MULTI-ROOTED TOOTH - LEAVE POINTS IN CANALS
CEMENTING ONE AT A TIME TO AVOID CONFUSION

NOTE: As anterior teeth are possible future candidates for post crown restorations it is sound policy to restrict silver point to apical third of canal. Silver points are most easily broken off at this point in canal by work-hardening at notched area before inserting with final cementation. A rotating as well as wriggling motion is necessary to remove butt portion of point with this technique.

Seltzer, Bender and Turkenköpf² determined that for most successful results, the root canal filling should end short of the radiographic apex. Their studies showed that overfilling attained 70.6% success, whereas flush filling attained 86.8%, and underfilling 87.2%. It should be noted that filling flush with the radiographic apex is in most cases filling beyond the actual apex of the tooth with subsequent irritation to the periapical tissues. The following diagrams demonstrate the difference between the true or actual apex and the apex as depicted on the radiograph, such deviation being attributed to configuration of the apex, and elongation or foreshortening distortion due to technique.



5.

DIFFERENTIAL CASE TREATMENT

	<u>VITAL CASE</u>	<u>NON-VITAL CASE</u>	
		<u>DRY CANAL</u>	<u>WET CANAL</u>
1ST APPOINTMENT	- Extirpate Pulp - File to Apical Constriction (1-1½ MM Short of Apex) - Complete to Largest File - Eugenol Dressing 24 Hrs	- File to Apex - Complete to Largest File - If Dry Apex - Fill (½-1 MM Short of Apex)	- Cleanse to Apical 1/3 of Canal Only - Whip 20 File - Leave Open 24 Hrs for Drainage
2ND APPOINTMENT	- Irrigate - If Dry Apex - Fill (To Apical Constriction)		- File to Apex - Complete to Largest File - If Dry Apex - Fill (½-1 MM Short of Apex)
		Dressing Every 48 Hrs Until Dry Apex	

NOTE: Vital case should always require two appointments as extirpation of pulp causes an inflammatory reaction with its associated edema - filling immediately may precipitate a pericementitis.

- CURETTAGE - (Preferable to Apicoectomy) - Remember, Bone Will Regenerate - Tooth Structure Will Not
- APICOECTOMY - Determine by Follow-Up RA's

FUTURE PROCEDURES
(possibly)

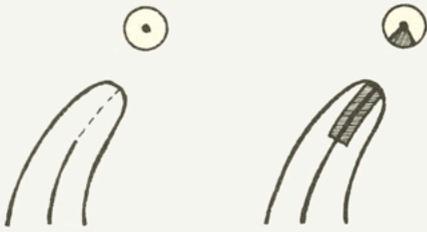
SEMI-LUNAR FLAP

FLAP ON FIRM TISSUE BUT ABOVE LEVEL OF GINGIVAL SULCUS

"V" CUT ON FACIAL SURFACE TO DEPTH OF CANAL PREFERABLE TO AMPUTATION OF UNFILLED CURVATURE

3. BLEACHING (No Light Required)

Remove RC Filling to CE Junction	Mix White Paste 2 Drops 30% H ₂ O ₂ + Powdered Sodium Perborate	Swab Chamber with Xylene or Chloroform	Seal Paste in Chamber with ZNO + Eugenol for 3-5 Days - Repeat Until Desired Shade	Before Filling with S Paint Chamber with Acrylic Monomer to Seal Tubules and Retard Future Discolouration
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"V" CUT ON FACIAL SURFACE

NOTE: This technique is extremely valuable in the case of buccal roots of upper molars where total resection of unfilled curvature might involve the sinus.

As a final note to this synopsis, it should be made clear that regardless of the non-culture technique requirement, dry heat sterilization of endodontic instruments preparatory to each individual treatment must be observed.

SUMMARY

1. It has been suggested that with the acceptance of a non-culture technique of endodontic treatment, simplification of procedures may be accomplished, and thereby a considerably greater number of teeth may be saved in general practice. This is made possible by a simplified tray set-up, minimal chair time, and fewer appointments.
2. It has been shown that time consuming precise filling of the root canal flush with the radiographic apex is not required and is even contraindicated. Filling to an arbitrary point short of the apex is a less exacting procedure and is the method of choice.
3. It is recommended that "follow-up" roentgenograms be taken subsequent to filling a non-vital tooth with an area of rarefaction at the apex, rather than curettage or resection of root prematurely.
4. A unique method of eradicating unfilled curvatures near apex rather than total resection of that portion of the root has been presented.
5. A method of bleaching requiring a minimum of equipment and time has also been presented.

Editors Note: There are 8 references. Bibliography supplied on request.

"The professional man has no right to be other than a continuous student."

--- Dr. G.V. Black

The RCDC News

Directorate

DUTY TRIPS AND VISITS

Brig KM Baird, Director General of Dental Services, accompanied by Lt-Col LA Richardson CO 4 Fd Dent Coy, Germany, and Capt GR Nye dental officer in charge of the Canadian Dental Detachment in Cyprus, attended the 54th Annual Session of the Fédération Dentaire Internationale held in Tel Aviv, Israel 10-17 Jul 66. In conjunction with these meetings Brig Baird was a discussion leader at the International Conference on Military Dentistry.

DGDS attended the Teaching Conference in Dental Education at the University of Toronto 9-11 May 1966.

DGDS and Col BF Kearney attended the CDA Board of Governors Meeting in Halifax, N.S. 8-11 June 1966.

Lt-Col G MacDougall visited units in Toronto, London, Edmonton and Vancouver as judging officer in the 1966 RCDC Militia General Efficiency Competition.

11 Dent Coy

CONVENTIONS AND MEETINGS

Col GC Evans attended the BC Dental Convention at Prince George 1-3 Jun 66.

EQUIPMENT

One of the mobile dental vans has been equipped with the Encore Mobile Field Dental Unit and dispatched to Vernon Military Camp for the period 4 Jul-26 Aug.

SPORTS

The first Victoria area RCDC golf tournament for the season was held on 29 Apr 66 at the Cedar Hill Golf Course.

12 Dent Coy

CONVENTIONS

Cpts Robertson and Goldberg presented table clinics which were well received at the CDA Convention in Halifax 12-15 Jun 66.

Major GT Crossman and Capt HW Brogan attended the Valley Dental Association meeting in Middleton NS in April. Capt Brogan was guest speaker and his topic was Periodontology.

ARMED FORCES DAY

A dental van equipped with airtor was sent for display to CFB Shearwater for Armed Forces Day 11 Jun 66. It was manned by Major RE Dyer and WO2 MacLean SL.

A dental van was also on display for the same occasion at CFB Galetown.

SPECIAL EVENTS

Personnel of 12 Coy attended farewell parties in nearly all parts of the

Maritimes as cuff links, lighters, tie pins and beer mugs were presented to the following personnel on their departure on posting: Lt-Col HR Kettlys, Capts N Goldberg and AN Swanzey, WO1 DD Robertson, WO2 Madge CS, Sgts Jermain EA and Grundy FG, Cpls Albertson GG, Danyluck RW and Middleton DF.

SPORTS

Capt AN Swanzey was promoted to Black Belt by the HQ of the Nova Scotia Black Belt Association. He has been grand champion of NS eleven times, one of the most successful instructors in the province and represented the Canadian Forces at the National Judo Championships in Edmonton 21 May 66. Capt Swanzey also recently received the award of Nova Scotia Athlete of the Year from the Nova Scotia Branch of the Amateur Athletic Union.

Major RE Dyer, Capts N Goldberg and GS Zwicker, WO2 Madge CS, and Cpls Arsenault JB and Deveaux CW comprised the winning team in the "B" championship bowling held at Windsor Park, Halifax.

13 Dent Coy

SPECIAL EVENTS

On 20 Apr 66, Trenton area dental officers were hosts to 18 members of the Bay of Quinte Dental Society. During the afternoon and evening clinical papers were presented by Lt-Col JW Turner, whose lectures were of a high calibre and attracted many favourable comments from the civilian guests. Dinner was served for the group in the private dining room of the Officers' Mess.

On 21 Jun 66 a farewell party was held at No 13 Dent Coy HQ for a number of Trenton area personnel leaving for postings to various parts of Canada. Those departing included WO1 RH Daw, HC Bilbey, WO2 Mazerall EE, and Cpls Forsythe GVS and Tweed WE.

A farewell party was held at No 28 Clinic CFB Toronto to mark the departure of Capt WJ Sinclair who has enrolled for post-graduate studies at the University of Toronto.

FLUORIDATION

The SDO No 3 Clinic advises that a new water filtration plant to be constructed at CFB Petawawa will include equipment for water fluoridation.

SPORTS

Personnel of No 13 Dent Coy held a Golf Day at Trenton on 17 Jun 66 which was attended by members from Petawawa, London, Toronto, Kingston and North Bay.

Following the game an excellent dinner was served in the Social Centre and prizes were presented. The low gross was won by Lt-Col GE Windsor and the low net by Capt TC Tervit.

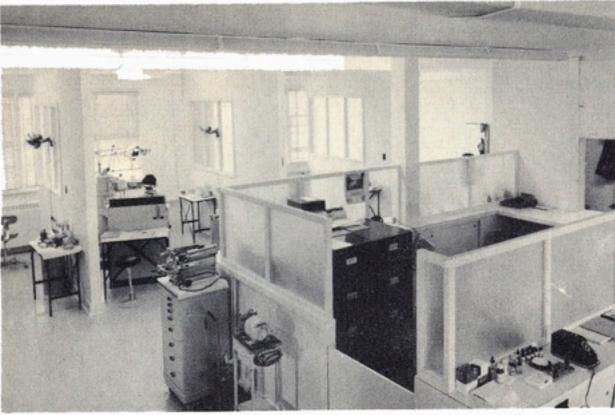
Capt RH Crowson was a member of the Royal Military College Senior Staff basketball team which placed second for the EOA championship.

WO2 Stokes HJ was awarded a trophy for the high average score in his bowling league.

SGT T HUSSEY RETIRES

During the evening following the Golf Day at Trenton on 17 Jun 66, a presentation was made on behalf of all members of the Unit to Sgt Tom Hussey who is retiring after 25 years service in the RCDC. Sgt Hussey is moving to Toronto and will be employed by Denco (Ont) Ltd. Members of this Unit and his many other acquaintances in the Corps wish him well in his new career.

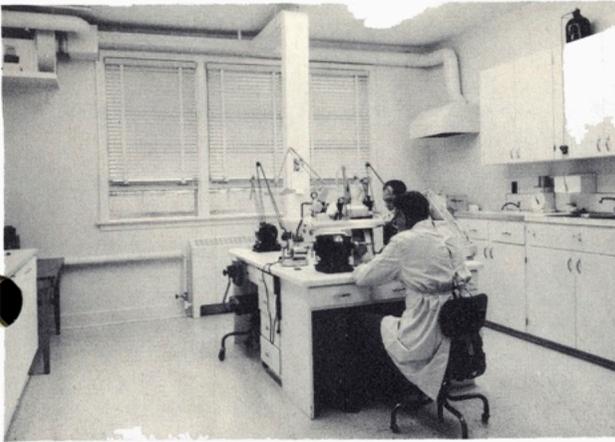
ACCOMMODATION



Dental personnel of No 2 Clinic (RCAF Sta Wpg) moved into their new accommodation 29 Apr 66.

This clinic with its many operating bays and some of the most recent dental equipment available has become the "show-case" for No 14 Coy.

One of the interesting features of this excellent accommodation is the centrally located orderly room-reception office around which are mixing areas, autoclave, etc.



Dental Laboratory
No 2 Clinic



Clinic personnel - No 2 Clinic

Front Row - Left to Right

Cpl Boles MN; Capts GD Petrie, DL Foy; Major RJ Bryant; Capts JD McCallum, JM Steadman; WO2 Savage P.

Back Row - Left to Right

Mrs L Less; Cpls Morrissette B, Hannah BF, Bristow GB; Sgt Demedash N; SSgt Storms GH; Sgt Fenton DL; Cpl Challenger GN.

SPECIAL EVENTS

No 14 Coy's annual "posting party" for the Winnipeg Area and its close satellites was held at the Horizon Room of the International Airport on 6 May 66. Dinner was preceded by a cocktail hour and followed by an evening of dancing and good fellowship.

CONVENTIONS

Major P Guevremont attended a Public Health Convention held in Quebec City 31 May-2 Jun 66. Forty dentists attended this convention.

ACCOMMODATION

A permanent clinic was opened at RCAF Station Val D'Or, Que, on 24 May 66.

MAJOR WA SUGARS RETIRES

Major Sugars has retired after ten years of post-war service with the Corps. Bill was welcomed back into the Corps in 1956, having had five years of war-time service, and he will soon be associated with the Corps again when he fills the Part V vacancy in Montreal.

A formal mixed dinner was held at 25 COD Officers' Mess to "dine him out" of the Armed Forces on retirement. A Corps crest was presented on behalf of all RCDC officers and a bouquet of flowers to Mrs Sugars.

SPORTS

Cpl JAN Audet participated in a marathon swim at Bagotville 11-17 Jun 66. He placed third among the contestants after swimming 42 1/3 miles and was awarded a second for swimming six miles non-stop.

CARNIVAL ON THE GOOSE

Annually the RCAF Station Goose Bay participates in a Winter Carnival. The aim of this event is to create a break in the long severe winter. The list of events are many, ranging from indoor events such as badminton, swimming and volleyball, to winter sports such as snow shoeing, snow sculpturing, skiing and tobogganing, and finally the social sport of curling. The events are run for one full week with women's events in the daytime and men's events in the evening and weekends. Each Club on the station, that is, Officers, Sergeants, Corporals, Airmen, DND and Squirrel Club (DOT) fields a team. The competition is extremely keen and at times tempers run short and emotions high.



As usual the RCDC staff were active competitors. Cpl Mahlitz proceeded to break all records in all events including the lack of sleep marathon. Capt Dippel, the only Dental Officer in the clinic at the time, spent most of the daytime fixing broken dentures, incisors and bridges. In one case he had to wait two weeks for the contestant to be released from the hospital. In between emergencies he found time to coach the Officers' toboggan team to a close second. WO 2 Tapp took leave in order to participate in both day time and night events in the Sgts' Mess.

Snow sculpturing, which has always been one of the keenest events, received a great deal of the spectator's interest. This year, owing to an extremely mild and snowless winter, huge quantities of snow had to be imported from the American side (this is a change) in order that the would-be snow engineers and sculpturers could show off their art. The DND Club's effort, the crooked house, is shown in the photograph



Two Militia dental officers attended the RCDC School from 4-8 Jul 66. Col GR Covey, Commandant RCDC School is seen presenting Military Qualification Certificates to ACapt DK Hurst (centre) of 26 Fd Regt, Brandon, Manitoba, and to ACapt C Chicoine of Les Fusiliers Mont-Royal, Montreal, Quebec on completion of the Captain (Dental Officer) Qualifying Course Part 2 RCDC(M).

GREY-BRUCE-DUFFERIN DENTAL SOCIETY VISITS RCDC SCHOOL

On 13 Apr 66 the Commandant and Staff of the RCDC School played host to 20 practising dentists from Owen Sound, Ontario, and the surrounding area. A programme was presented which offered opportunity for the visitors to observe the actual training of auxiliaries with particular emphasis on the Technical Dental Therapist.

Presentations included the following:

Reinforced Pin Amalgams (Lt-Col JW Turner)
Dowel Abutment Crowns (Maj JM Donely)
Controlled Tooth Division (Maj AJ Andrews)
Endodontics Simplified (Maj WH Murray)

The programme continued into the evening with an informal dinner followed by a series of professional films. The programme was organized by Maj JJN Wright.

RCDC SCHOOL GUEST LECTURERS

Lecturers from the RCDC School were active both near and far during the past quarter.

- Maj DH Newell - Periodontal Diagnosis to the Muskoka-Simcoe Dental Society on 4 May 66.
- Maj JJN Wright - "Diagnosis of Pathological Lesions Affecting the Gingiva and Adjacent Structures" at the 99th Annual ODA Dental Convention at Toronto on 17-18 May 66.
- Maj AG Andrews - Modern Concepts of Local Anaesthesia to the USAREUR Dental Conference at Garmisch, Germany, on 26 May 66.

Lt-Col DH Protheroe participated as a member of a panel presentation on Preventive Dentistry at the CDA Convention at Halifax on 14 Jun 66.

LIAISON VISIT

Col WD Love, Deputy Director of Dental Science, MFSS Fort Sam Houston, Texas, made a liaison visit to the RCDC School during the period 27-30 Jun 66. Col Love's visit conveniently coincided with the RCDC School Golf Tournament in which he participated.

SPORTS



The RCDC School held its Annual School Golf Tournament on Wed 29 Jun.

The Fletcher Trophy was won by WO1 Tom Batten with a gross of 79. 2Lt Bill Kearns, 3rd Phase, also shot a gross of 79.

Lt-Col DH Frotheroe congratulating 2Lt Kearns

1 Dent Eqpt Dep

SPECIAL EVENTS

The Depot entered a display for Armed Forces Day held on 8 Jun 66.

SPORTS

No 1 Dental Equipment Depot in conjunction with No 3 Dental Clinic held their annual fishing derby on 22 May 66. WO2 Hutchinson JW was the proud recipient of the trophy for the largest fish.

It seems late in the season to report a curling event, but a rink from No 1 Dent Eqpt Dep won the regimental curling championship in the HQ and Services Curling League in CFB Petawawa. The rink was skipped by Lt TM Jackson and the other members were Maj JW Fletcher, Lt EM Lobb and WO2 Hutchinson JW.

1 Dent Det

A warm welcome is extended to Maj JL Craig, Pte George H and Mrs AB Morin who joined No 1 Dent Det during the past three months.

SPECIAL EVENTS

A farewell party was held at No 13 Personnel Depot for the following members of No 1 Dent Det who will be departing shortly on posting: Lt-Col W Carter, Maj JJY Turcotte, Capt BH Weeks, WO2 Mann CD, Sgt Gagnon AJC and Cpl Smith DS.

* CORPS MEMBERS ARE REMINDED THAT THE ANNUAL RCDC GOLF TOURNAMENT WILL BE HELD AT CAMP BORDEN 23-24 SEP 66.

4 Fd Dent Coy

CONFERENCES AND MEETINGS

On 27 Apr 66 a very successful professional meeting was held in the 2 R22eR Officers' Mess. Lt-Col Edmundson RADC Oral Surgery Consultant at BMH Iserlohn presented some cases recently treated at that hospital and Capt Brush, US Army DC, gave an excellent illustrated talk on "Work Simplification in Dentistry".

At the same time the dental NCO study group held a meeting chaired by Sgt Reid. SSgt James briefed the group on rotation procedures and Sgt Christiansen spoke on "Fabrication of Instant Treatment Partial Dentures".

The following dental officers attended the USAREUR Dental Conference in Garmisch, Germany 26-28 May 66: Lt-Col LA Richardson, Maj LA Reynolds, Maj PP Morin, Capts RJ Paturel, DR O'Hara and MD Taylor. Professor Bertram Cohen was the main guest clinician.

SPECIAL EVENTS

The annual rotation party was held at the Castor Club in Werl on 3 Jun 66. An engraved plaque was presented to each of those members rotating to Canada this summer.

SPORTS

A unit sports day was held in the field on 22 Jun 66. Personnel participated in volleyball, badminton and horseshoes. The Sr NCOs defeated the Officers' and men's teams -- using a point system designed by the Sr NCOs.

35 Fd Dent Unit

CONFERENCES AND MEETINGS

The Annual USAREUR Dental Training Conference was held in Garmisch, Germany, 26-28 May and was attended by the following dental officers from 35 Field Dental Unit: Lt-Col JC Brick, Maj JOL Bourget, Maj Y Kamachi, Maj DE McDermott.

SPECIAL EVENTS

A Unit farewell party was held in the Social Centre at HQ 1 Air Div on 3 Jun 66 in honour of the following members of the unit who will be rotated to Canada this summer: Maj JOL Bourget, Maj JL Craig, Maj JH Marion, Maj DE McDermott, Capt M Kostyniuk, Capt A Van Ryssel, SSgt White CR, SSgt Shaw VH, Sgt Jennings GR, Sgt McFadden EE.

CBU (UNEF)

SPECIAL EVENTS

Canada Day celebrations were held throughout the Contingent on 23 May 66, the Canadians being hosts to the other contingents at several functions. Members of the dental detachment participated in a monkey golf tournament in which SSgt Kay won the prize for "high hidden hole".

A party was held on 18 Jun 66 to bid farewell to LSgt Ron Lindsay and Cpl Don McKay.

SPORTS

Capt Chernesky was on the HQ CBU softball team, "A" League, which became WU champions by beating 56 Sig Coy.

CCUNCYP

SPECIAL EVENTS



St Jean Baptiste Party

On June 24, members of the Camp Maple Leaf (Canoe Club) Officers' Mess celebrated French Canada Day with a St Jean Baptiste party. Representatives from all contingents were present as Father Flourde and Maj Boire led a sing-song of French Canadian songs. The entertainment included lizard races which were a big success. The highlight of the party occurred when St Jean Baptiste appeared and blessed all. By coincidence the occasion occurred on Capt Nye's birthday and St Jean congratulated him on "coming of age"!

From left to right - Capt Geo. Nye DO
St Jean Baptiste (Maj Boire)
Father Flourde
Capt Tud Kaulbach (PMC)

In Memoriam

It is noted with regret that three dentists formerly prominent in the Corps have died recently.

L.L. KENT

Dr. Leonard Ernest Kent, M.B.E., C.D. died on the 26 Apr 66. Born in St Anne de Bellevue, PQ, in 1899, Dr. Kent graduated from the University of McGill in 1923. He joined the Service in 1939 and retired from the Active Force with the rank of Lt-Col at the end of the war. He continued his association with the RCDC retiring from the Reserves in 1959 as a Colonel. Dr. Kent was a past president of the Montreal Dental Club. In 1956 he was honoured with the title Queen's Honorary Dental Surgeon. Following retirement from private practice he was employed on a part-time basis with the RCDC in Montreal.

C.L. STRACHAN

Dr. C.L. Strachan, E.D., died in Victoria Hospital, London, Ontario on 6 Jul 66. He was born in Manitoba in 1898 and graduated from the University of Toronto in 1924. He served with the Active Force 1939-45 retiring with the rank of Lt-Col and continued his association with the RCDC as a Militia Unit Commander and later as Col, ADDS until 1949. Besides his military contribution to dentistry, Col Strachan is remembered for his work representing dentistry on the Hall Commission.

W.G. TRELFOED

Dr. W.G. Trelford, V.D. was born in Ontario in 1891. He graduated from the University of Toronto in 1913 and served with the C.E.F. from 1915 to 1920. Between the First and Second World Wars Dr. Trelford served with the Militia and as a Lt-Col he organized the Dental Coy for MD2 at the outbreak of World War II. He took 1 Div Dent Coy overseas that year and was instrumental in developing the Canadian Dental Increment which worked in the Maxillo-Facial Centre at Basingstoke. Dr. Trelford died in Sunnybrook Military Hospital 7 May 1966.

Training

RCDC SCHOOL - CAMP BORDEN - DT LAB GP 4 COURSE - 9 MAY-17 JUNE 66

Sgts Christiansen JA, Clarke JE, Hill DF, MacKay FD, Reid FJ, Sprathoff EPH, Tremblay M.

Welcome to the Corps

A cordial welcome is extended to the following personnel on their recent graduation and promotion to Captain: Captains HM Amos, JJR Bellerose, JW Bergerman, JLPA Berthiaume, JLAR Bourcier, W Budzinski, JAAL Carrier, JAR Fortier, DA Humphreys, RG Kerr, VJ Lanctis, WD MacKenzie, JL McNeil, DC Morgan, GD Petrie, DL Poy, JAR Shearer, JE Stansfield, JM Steadman, BM Trepanier, DG Wilson.

Other new members in the Corps are: Capts JR Cowan, CL Gullekson, Ptes Boissoneault JMM, Craig MJ, Duffield RG, Hurley A, Lamontagne GRR, Solomon RL, Taylor TH.

Promotions

To Col - SG Bagnall.

To Lt-Col - WH Harrington.

To Major - MN Deyette, L Dombowsky, JJB Houde, JFA Marcil.

To Capt - EA Church.

To SSgt - Chartier CA, Libby GKW.

To Sgt - Kennedy JF, Kerr DL, McDonald RW, Schemlizie CE, Shergold KJ, Walker RS.

To Cpl - Abfalter RF, Boulanger JF, Bosch F, Braslins IA, Bristow GB, Hatcher LR, Jack A, Kukurudziak TRJ, Labrosse JG, Larouche JA, O'Dell RG, Palmer WG, Strasdin JA, Wesley JA.

Retirements and Releases

Capt LW Armstrong, GJB Dionne, RWR Horn, WR Kyle, NA McFarlane, RT Mori, RFC Oswin, WJ Sinclair, PS Wade; SSgt Brown LG; Sgts Hussey T, Hutton WFE; Cpls Middleton DF, James EC (Airwoman); Pte Lapointe JOM.

Vital Statistics

MARRIAGES

Capt GW Hill to Miss Carolin Joyce Christopherson; Cpl Gratton JRY to Miss Irene Malo; Pte Larouche JA to Miss Rejeanne Chapdelaine.

BIRTHS

Son - Capt and Mrs JEG Brissette, Capt and Mrs WG Ebert; Cpl and Mrs LG Peverill; Capt and Mrs GE Purcell; Capt and Mrs BH Weeks; Maj and Mrs JOL Bourget; Cpl and Mrs TR O'Mara; Pte and Mrs T Taylor; Cpl and Mrs PD Whyntott.

Daughter - Cpl and Mrs ML Allen; Capt and Mrs JJLG Girard; Capt and Mrs FH Harreman; Major and Mrs JJN Wright.

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