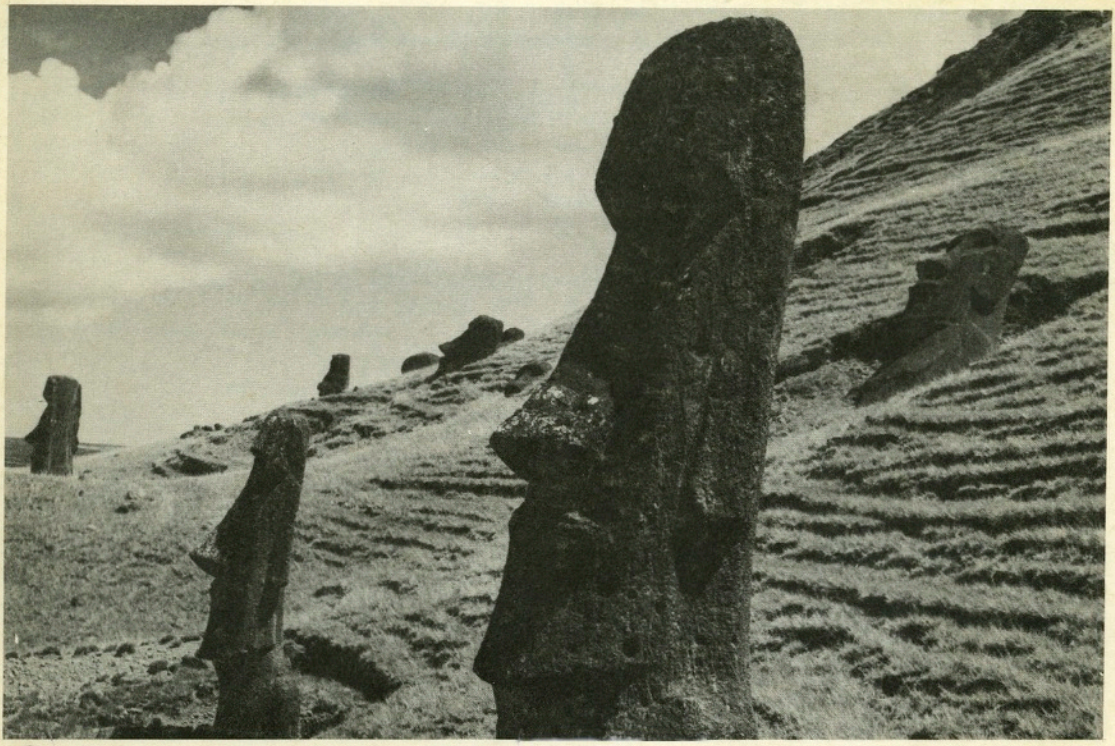
The ROYAL CANADIAN DENTAL CORPS Quarterly



VOLUME 6 NUMBER 2 JULY 1965

Table of Contents

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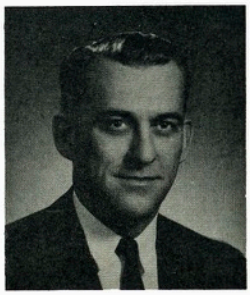
VOLUME 6 NUMBER 2 JULY 1965

PARTIAL DENTURE PLANNING
FULCRUM LINE AND ROTATIONAL CONTROL



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Dental Surgeon-in-Chief,
Montreal General Hospital,
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Dr. O. Sykora

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The practice of Prosthetic Dentistry combines the qualities of an Art and a Science, in which the teachings of the basic medical sciences, the dental sciences and the principles of engineering find their practical application as a blend with the artistic appreciation of the operator.

This paper proposes to deal with that segment of partial denture construction concerned with the planning and design of removable prosthodontic appliances and specifically to the principles related to fulcrum lines and the control of rotational movement in such appliances.

It is presumed that a searching examination and study has provided the data upon which an evaluation of the causative factors of the partially edentulous condition, the extent of progress reached by that process, the favourable and unfavourable influencing factors and so on may be determined.

Fundamental Principles

As a foundation for a discussion of the specific problem; there follows a review of the principles which must be considered in rendering a removable partial denture service.

a. Any partial denture service should begin with the return of the oral tissues to a state of health so far as this may be possible;

b. the major objective of any partial denture service, be it fixed or removable, intracoronal or extracoronal, should be the preservation of the remaining oral tissues; this should take precedence over the re-establishment of an ideal status of dental function;

c. before any mouth preparation is initiated, there should be a critical evaluation of each remaining tooth so that its strategic importance in the rehabilitation of the mouth may be determined and its retention or extraction justified;

d. partial denture design should be as simple as possible, consistent with the basic biological, mechanical and structural principles which may be involved; every component of the partial denture framework has to have its proper justification;

e. since the physiological tissue tolerance of individuals may vary greatly, the stress load induced by the partial denture should always be directed toward the minimal in order not to exceed the tolerance of the individual's supporting structures;

f. to ensure the most satisfactory partial denture experience, the patient must be properly prepared psychologically to receive this type of service and must be trained to co-operate most fully in the care of the mouth and the maintenance of the prosthesis; and,

g. removable partial denture service should be such that it can be provided effectively by the largest number of dentists to the greatest number of patients consistent with the rendering of a true health service.

With these principles established, consideration will be given to the fulcrum line and the influences it has on partial denture planning.

What is a Fulcrum Line?

The fulcrum line (or line of rotation) is an imaginary line passing through the supporting areas of teeth upon which direct retainers are to be placed; and around which the partial denture prosthesis will tend to rotate when subjected to various masticatory stresses. It must be pointed out that there may be more than one fulcrum line for the same partial denture and that the line of rotation should always pass through the centers of stabilizing areas for maximum efficiency.

Having established that the partial denture rotates around an axis or axes and presuming that clasps are functioning properly to prevent total displacement, a rotational movement will occur as the free-end base will have the tendency to lift away from the underlying tissues. Indirect retainers neutralize these forces which tend to dislodge the prosthesis, preventing unseating rotation about the fulcrum line.

What are Indirect Retainers?

They may take the form of embrasure rests or hooks, secondary occlusal rests, anterior modification areas, continuous clasps, ribbon bars or linguoplates functioning indirectly on the side of the fulcrum line opposite to the one or more free-end bases of the denture.

In their design and placement three main rules should be followed:

a. indirect retainers, to function properly, must be rigid;

b. they must be placed on a definite horizontal ledge where slippage or tooth movement will not occur and not on tooth inclines or weak abutments;

c. the farther they are placed from the fulcrum line, the greater their efficiency.

According to Steffel, for ideal leverage and best stabilization, the following rules should be observed:

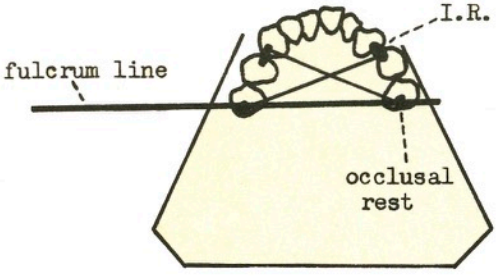
a. Select abutments for direct retainers as far apart as feasible, both bilaterally and antero-posteriorly.

b. Select abutments so that the fulcrum line (load line) bisects stabilizing areas; or so that the geometric figure (triangle or quadrangle), formed by several fulcrum lines, has the greatest area possible.

c. Provide short unseating leverages, and long stabilizing and controlling ones.

Practical Applications

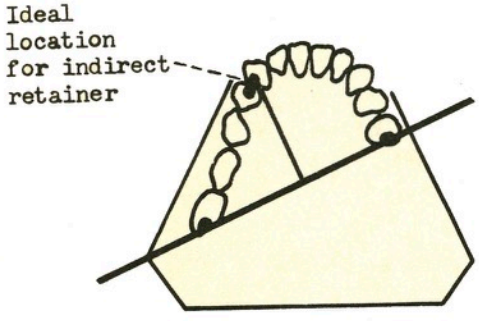
Cl.I* situation (all remaining teeth are anterior to bilateral edentulous areas)



i. fulcrum line passes through the occlusal rests of the most posterior abutment teeth on either side of the arch;

ii. two indirect retainers are to be preferred (two free-end bases).

Cl.II situation (the remaining teeth of either the right or left side are anterior to the unilateral edentulous area)

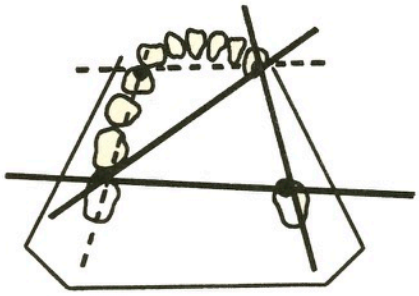


i. fulcrum line is always diagonal, passing through the occlusal rest areas of the abutment tooth on the free-end side and the most posterior abutment on the opposite side;

ii. one indirect retainer (opposite the free end base) is used; or, if another abutment tooth anterior to a modification space lies far enough mesially from the line or rotation, it may be used effectively for the support of an indirect retainer;

*Kennedy-Applegate Classification system, which is based on the manner of achieving appliance support; close correlation exists between appliance design and the classification of partially edentulous areas.

Cl.111 situation (the edentulous area is bounded by teeth unable to assume total support; cross arch splinting is required.)

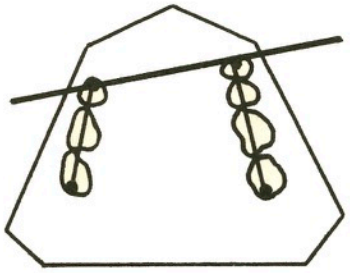


i. a tooth borne partial denture;

ii. a triangular or quadrangular design is indicated from the use of three or four direct retainers, with the abutments being selected as far apart as feasible to include the largest area within the triangle or quadrangle and to provide the longest controlling leverages against the lifting strains;

iii. no need for an indirect retainer.

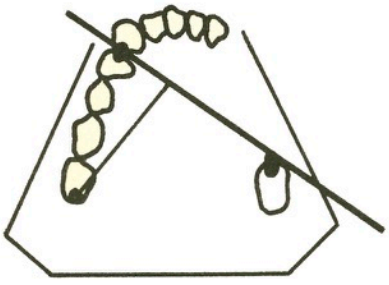
Cl.1V situation (the remaining teeth bound the edentulous area posteriorly on both sides of the median line.)



i. the fulcrum line passes through the two anterior abutments adjacent to the single edentulous space;

ii. two indirect retainers are needed and are used usually in the form of a secondary direct retainer on the most posterior tooth suitable as an abutment on either side of the dental arch;

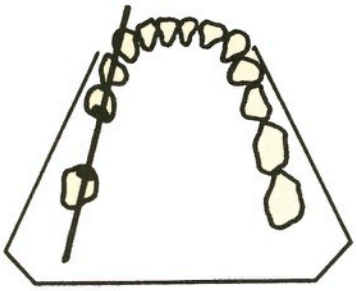
Cl.V situation (the teeth bound the edentulous area anteriorly and posteriorly but the anterior boundary tooth is not suitable for abutment service.)



i. fulcrum line is diagonal, similar to the Cl.11 situation, passing through the occlusal rest areas of the two principal abutment teeth; that is to say, between the free-end base abutment tooth on one side and the most anterior abutment tooth on the opposite side;

ii. one indirect retainer is needed and it is usually placed on the most posterior tooth on the side opposite to the anterior free-end base;

Cl.VI situation (the boundary teeth are capable of total support of the required prosthesis)



i. fulcrum line passes through the rest areas and in line with the partial denture; this design derives its stability against tipping from only the short leverages supplied by the arms of the two direct retainers with no cross-arch support;

ii. no indirect retainer needed.

Anterior or posterior modification areas do not change any of the above mentioned principles and basic designs. As a general rule, a short anterior modification area should be eliminated by a fixed partial denture prosthesis; however, a posterior additional space may be of advantage (cl.II, Cl.III cases) where there is an advantage in creating bilateral design.

One final statement may be made concerning the so-called direct-indirect retention which one may obtain in maxillary cases. Separate indirect retainers may not be needed if retention from a cast palatal plate or a cast palatal strap will provide sufficient direct retention to prevent movement of the base away from the underlying structures, despite the forces of gravity and/or other dislodging forces.

Summary

The fundamental principles which influence the rendering of a removable partial denture have been reviewed. The significance of the fulcrum line in the design of a removable partial denture has been noted. The role of indirect retainers and their relationship to fulcrum lines and resulting tendencies to rotational movement in removable partial denture prostheses has been discussed.

It is inherent in the basic responsibility of the dentist when concerned with the design of a removable partial prosthesis to give consideration to these fundamental factors that the resulting treatment plan may be consistent with primary biological, mechanical and structural principles.

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35 FIELD DENTAL UNIT, ROYAL CANADIAN DENTAL CORPS

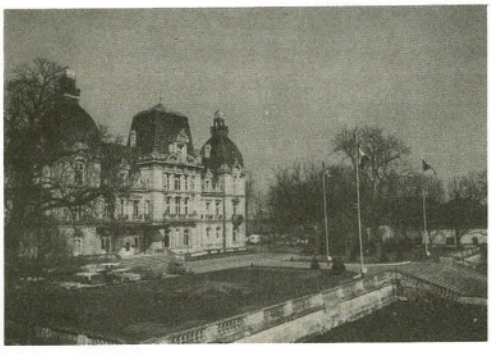
Lt-Col L.G. Craigie, CD, DDS

Lt-Col L.G. Craigie

BACKGROUND

Although No 1 Air Division RCAF did not function as an operational command until October 1, 1952 it did have forces overseas destined for NATO for more than a year. Major J.G. Butler, Sgt AD Brown and Sgt AC Vout, all of the RCDC, were present when the Royal Air Force Station at North Luffenham, in Rutlandshire, England's smallest county, was transferred to the RCAF and became No 1 Fighter Wing on 1 November 1951. Early the following year No 30 Air Materiel Base at Langar, near Nottingham in England was under construction to provide logistic support for Canada's projected Air Division. In the old Province of Lorraine, in Northeastern France, No 2 Fighter Wing at Grostenquin began to take form and in November 1952 Capt J.C. Brick, Sgt WB Gilbert and Pte W Baker arrived at 2(F) Wing.

A tense political situation in Europe during 1952-53 made the need to establish the operational capacity of the Air Division an urgent requirement. Air Division HQ was relocated from Paris to Metz France. No 3 Fighter Wing, Zweibrucken, Germany became operational in March 1953 and full priority to finish the construction of No 4 Fighter Wing at Baden-Soellingen, Germany was ordered.



Chateau de Mercy

By the end of the year 1953 the confines of the Air Division was as follows:

No 1 Air Div HQ	- Metz, France
No 1(F) Wing	- North Luffenham, England
No 2(F) Wing	- Grostenquin, France
No 3(F) Wing	- Zweibrucken, Germany
No 4(F) Wing	- Baden-Soellingen, Germany
No 30 AMB	- Langar, England

Through January and March 1955 No 1(F) Wing moved from North Luffenham to Marville, in the Meuse department of Northeastern France.

No 35 Field Dental Unit Formed

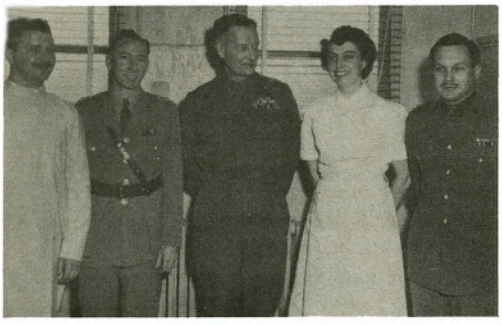
As the construction on the fighter bases progressed and was completed the build-up of RCAF personnel in the Division began and with the increase came the demand for dental treatment and the need for the establishment of RCDC clinics at the HQ and Fighter Wings.

Under SDl Letter No 53/49 dated 6 May 1953 authorization was granted in Canada for the formation of 35 Field Dental Company effective 29 April 1953. Effective the same date 35 Field Dental Company came under the command of HQ Canadian Base Units, Europe and was placed under administrative control of No 1 Air Division for all purposes except discipline.

On 16 December 1953 No 35 Field Dental Coy was redesignated as No 35 Field Dental Unit. It was felt by the Director General of Dental Services that the designation of dental formations as Dental Coys was a misnomer in that "Company" tended to create an erroneous impression as to size, responsibility and command and that in the future, designation of dental formations as Unit rather than Company would be used.

Unit Accommodation

The first component of the HQ Staff for the newly formed unit arrived at Air Division HQ, Metz France on 25 June 1953. Space to accommodate the staff had been reserved in the Chateau de Mercy along with other staff personnel for the Division. Although the Chateau was a beautiful and historic building, the space allotted for the Unit was inadequate. Arrangements were made to provide for more spacious quarters which would include a dental clinic, in a proposed new administrative building. The new accommodation was completed in the fall of 1954 and the HQ personnel moved in.



L to R: Sgt W Powers, Lt Col WR Cunningham, Brig EM Wansbrough, LAW C Pilkington, Maj JC Brick

At the Wings, clinic accommodation was provided in the station hospitals, but as the Air Division grew in strength, renovations, additions and in some cases entirely new accommodation had to be made for dental personnel.

At 2(F) Wing a new clinic separate from the hospital was constructed in 1957. It had three operating rooms, a good-sized laboratory, orderly room and waiting room. It also provided for a separate waiting room and operating room for the dependents' clinic. An addition to the clinic at 4(F) Wing to allow for a separate operating room and waiting room for dependents was completed in 1961. Alterations at the HQ clinic to provide an additional treatment room was completed in 1962.

In March 1960 approval in principle was given to build an entirely new clinic at 1(F) Wing. However, the cost of such a project became prohibitive and authorization to proceed with the construction suffered a long series of

delays. Finally approval was granted to renovate a building in a good state of repair on the station and the clinic was finished and ready for use on 7 Jan 1964. The new clinic at 1(F) Wing provides built-in sinks and working spaces in the operating rooms and one of the three operating rooms is furnished completely with new Canadian equipment. It also contains a separate waiting room and operating room for dependents.

Part-Time Clinic Accommodation

In August 1958 plans were made to establish a clinic at the Canadian Joint Staff in London, England. However, the relocation of the Canadian Joint Staff from their former address at Ennismore Gardens to their present address at 1 Grosvenor Square held up construction for so long a time that the clinic was not ready for use until 29 Sep 1961. The clinic has a modern unit and chair, x-ray and laboratory facilities.

A part-time clinic was opened at the RCAF Air Weapons Unit in Decimomannu, Sardinia, in December 1958. Deci (as it is called by Canadians) is a tri-service station composed of Italian, German and Canadian Air Force personnel and is used as a firing range for fighter aircraft of the three nations mentioned. The dental equipment is of modern design and the Italians, who administer the base, co-operate fully with the Unit in allowing the use of the clinic and the equipment on a part-time basis. Since less than one hundred RCAF personnel are attached to the Air Weapons Unit in Sardinia two or three visits a year by unit personnel satisfies the dental treatment requirements.

The clinic at 30 AMB at Langar had operated on a full time basis since the Unit was formed, but with the employment of new transport aircraft on regular transatlantic flights the functional role of the station became of less importance to the Division. Accordingly, the number of RCAF personnel there was reduced and since only a housekeeping staff was required to maintain the base the dental clinic was declared a part-time clinic on 18 Feb 1960 and was subsequently closed in 1964.

The part-time clinics at Langar and London were manned on a regular schedule by personnel of the Unit. Arrangements were made in 1962 to have dental sections from 4 Fd Dent Coy with the Brigade in Soest, Germany alternate with those of the Unit in providing dental treatment for Canadian personnel in England.

Dental Equipment

Field dental equipment was used initially by the officers and men of the Unit and was replaced with German-made Ritter units which were installed in all the clinics on the Continent. During the course of the years 1960-1964 new dry-heat acrylizers, airotors, amalgamators, model trimmers and vacudents were added to the Unit's ledgers. The clinics at 1(F) Wing and Metz have now been equipped, in part, with modern Ritter and SS White units delivered from Canada.

In 1960 a chrome cobalt casting unit was installed at the HQ laboratory in Metz.

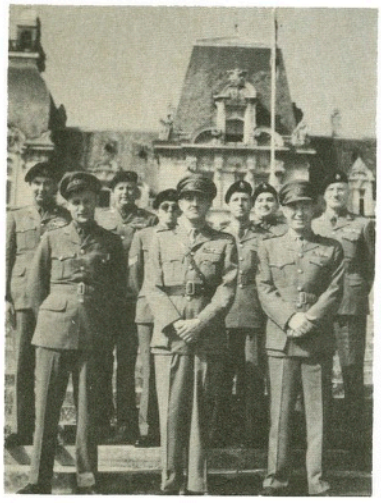
Dental Stores

The first shipment of dental stores for the Unit arrived in Metz in January 1954. Suitable storage space was found by renovating an old military bunker that had seen service during both World Wars and which has been occupied by either the French or the Germans depending on the military situation at the time. The old bunker proved adequate if one could find the proper road and entrance into it. There was, of course, the problem of finding one's way out of this network of tunnels which at times reached three underground levels.

In the fall of 1955 suitable space was made available at Unit HQ and the dental stores were removed from the bunker. Personnel of the Unit use the same stores list that is used in Canada with the exception of a few items which are purchased locally. Dental stores were formerly shipped from Canada to the Unit by sea and there were incidents of damage and loss. Now all dental stores are shipped from Trenton, Ontario via RCAF service flights to Marville in France. The service is efficient and the handling of the stores is excellent.

Dependents Dental Care Program

The restriction on dependents accompanying service personnel to the Air Division at public expense was lifted in 1955 and with the influx of dependents came the problem of obtaining adequate dental care. Many dependents were reluctant to receive treatment from the civilian dentists in the vicinity and endeavours were made by the Air Division to establish the responsibility for dependent dental care with the Corps and 35 Field Dental Unit in particular. However, authorization to have the Unit assume this responsibility was not obtainable and the Air Division decided to create a dependent health service from their own resources.



Front: Capt Geo Truscott, Lt-Col AC Leman, Capt JW Harrison. Back: Ssgt BA McLeod, Ssgt A Ponton, Sgt A James, Ssgt H Hodkinson, Cpl E Jermain, WO2 W McMichael

Office space and dental equipment were made available and local dentists were contracted to provide the treatment. Funds to finance the program were arranged through the Non-Public Funds of the station concerned. In return for treatment rendered by the civilian dentist the serviceman paid a fee for service for his dependents to the RCAF Accounts Section. He was allowed to pay in cash or have the amount deducted from his pay.

At the beginning it was difficult to contract local dentists who were capable of providing a dental service of the professional standard expected by Canadians. Also the provision of adequate space to accommodate a dependents' clinic was often a problem. However by May 1958 the last dependents' clinic was completed and at present there are four such full-time clinics, within the confines of the Air Division.

Special mention is made of the two German civilian dentists still serving with the Division. Dr. Egon Schwab has served at 2(F) Wing and 4(F) Wing since 1955 and Dr. E.O. Calleneus has served at the HQs clinic at Metz since 1957.

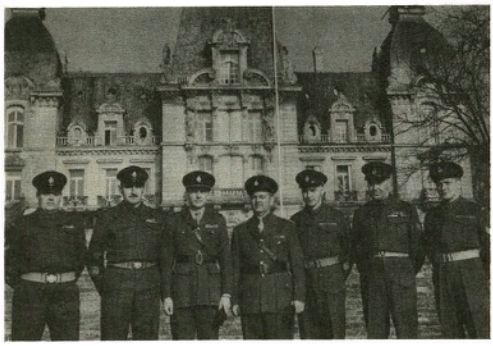
Military Training

Operational training for RCDC personnel in the Division is not comparable to the training that would be received if the Unit was a part of a similar formation of the Canadian Army. Generally, in exercises and alerts, ground personnel are held in static positions and only flying personnel are deployed. However, all personnel are given a War Task Assignment on arrival and RCDC personnel are placed in positions as required by the Emergency Defence Plan of the Division.

There were, nevertheless, two instances where personnel did receive field training. In 1955 three officers and three NCOs attended a field exercise staged at HQ 1 Field Dental Company, Soest, Germany and in 1957 the HQ staff of the Unit were under canvas for a week during the NATO Exercise "Counter Punch".

Professional Training

Since 1954 an excellent professional affiliation has been established between the officers of the Unit and their counterparts in the US Army and US Air Force Dental Corps. Canadian officers are invited to attend monthly meetings and study groups held at near-by American Military installations. Many officers belong to the Western Germany Armed Forces Dental Society, a professional organization sponsored by the American Dental Corps in Europe and once a year Canadian officers attend the Annual Dental Conference held at Garmisch, Germany in the heart of the Bavarian Alps. In recent years the annual conference has grown in scope to include dental officers from other NATO forces in Europe giving the conference an international atmosphere.

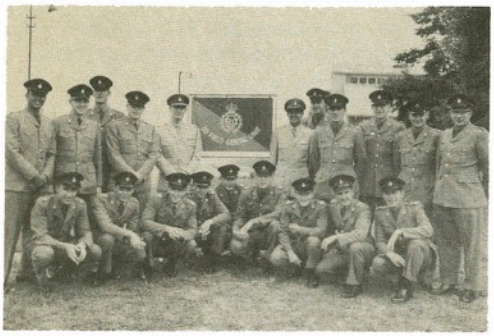


L. to R. Cpl AJA MacFarlane, WO2 HC Bilby, Lt Col GR Covey, Capt GJ Moore, WO2 EM Lobb, Ssgt BA MacLeod, Sgt KJ Smallshaw

Officers from the Unit have been enrolled in the General Oral and Dental Surgery Courses at the Royal College of Dental Surgeons in London, England and at present an officer is attending a course in Orthodontics at the University of Freiburg, Republic of West Germany. All Unit officers are encouraged to enroll with the Professional Extension Courses conducted by the US Naval Dental School and little or no administrative difficulties are experienced with the courses even though the assignments are sent to an "overseas unit".

In 1964 a refresher course in chrome-cobalt procedures was organized for the Dental Technicians (Lab) of the Unit. Each technician received individual instruction and assistance in the fabrication of prosthetic cases. This short course for the technicians proved to be a very popular one indeed.

Dental Officer Subsidization Plan Officer Cadet Training



Major WH Harrington and Lt Col LG Craigie with 1963 2nd Phase DOSP Cadets at 4 Wing, Baden Soellingen

During the course of the DGDS inspection tour of the Unit in April 1963 the possibilities of conducting a part of the training program at the Air Division for Second Phase Officer Cadets was investigated. Accordingly, on 2 July 1963 eighteen officer cadets arrived at the Division for RCAF Indoctrination Training. A similar program was arranged for the following year and on 9 June 1964 fifteen officer cadets arrived for training. As part of their training a conducted tour of the Division and environs was arranged for them by the Unit.

Airwomen

Late in October 1953 authority was sought to permit the employment of airwomen as dental assistants with No 35 Field Dental Unit and by the end of the year 1954 five airwomen were serving in this capacity. From that time on the dental assistants from the RCAF (WDs) have performed their duties in an outstanding manner and brought credit to themselves and to the RCAF in particular.

Deaths

October 1955 was a sad month indeed for the personnel of No 35 Field Dental Unit and for the Corps. Major H.S. Lankin, who had only recently arrived at the Unit was found dead from a cerebral haemorrhage in his apartment in Metz. His wife and three children were on their way to join him at the time and were notified of his death while still at sea.

Major Howie Lankin was buried with full military honours in the RCAF cemetery at Choloy, France. The bearer party and the support party was composed of RCDC personnel from the Unit.

Sports

All the facilities for personnel to partake actively in sports are available in the Division. Even for skiing enthusiasts, some of the world's finest resorts can be reached with a day's drive by car.

Individuals from the Unit have distinguished themselves at hockey, tennis, bowling, golf, football and softball, but the most noteworthy team effort was in curling. In November 1961 two curling rinks from the Unit defeated two rinks from 4 Field Dental Coy at a bonspiel held at 3(F) Wing Zweibrucken, Germany. In February 1964 a curling rink, representing the Unit, participated in the Second Annual RCDC Bonspiel at Camp Borden, Ontario and placed third in the competition. Again, in February 1965, 35 Field Dental Unit attended the Third Annual RCDC Bonspiel and were runners-up in the third event.

Close-Out of 30 AMB and 2(F) Wing

The employment of Comet, Yukon and Hercules aircraft by the RCAF on regular transatlantic flights gradually lessened the requirement for 30 AMB as a logistical base. The dental clinic had been serviced by the Unit on a part-time basis since 1960 and following a definite notice from the RCAF the clinic at Langar was closed in Feb 1964.

By 1962 new supersonic CF 104s began to replace old Sabre and CF-100 Squadrons in the Division. The necessity for maintaining Grostenquin as a fighter base was no longer required and it was decided to close out the Station.

A touch of irony was associated with the closing of 2(F) Wing. Capt J.C. Brick had opened the first dental clinic at 2(F) Wing in November 1952, and almost twelve years later, and now as Lt Col Brick the Commanding Officer of the Unit, he completed the arrangements for its close-out on 31 July 1964.

Life With the Unit

A tour of duty with 35 Field Dental Unit is one in which the environment contains ideal working conditions for the personnel and all the advantages of Continental living.

The time has long since past when there were certain disadvantages associated with a posting to the Unit. Since the restriction that dependents were not authorized to travel to Europe at public expense was lifted, married quarters in restricted numbers have been built and schools, staffed by Canadian teachers, are available to all dependent personnel. Housing accommodation on the local economy has improved in standard and availability. Actually, the amenities are much the same as on any military installation in Canada. Each Wing has its own station store (PX), theatre, bank, messes, churches, and recreational facilities. In addition, personnel receive foreign allowance pay and enjoy tax-free privileges on automobiles, gasoline and many other articles.

Intermingled with the Canadian way of life is the European way. Destinations on leave for personnel of the Unit has shown such countries as Ireland, England, Spain, Portugal, Italy, Greece and the Scandinavian countries to mention only a few. The opportunities to explore the cultures of the European peoples and their cities and to share their picturesque countryside are memorable occasions, indeed, for the personnel of No 35 Field Dental Unit and their dependents.

Place de la Gare, Metz, France

Personnel

The following is a list of the commanding officers, officers, men and airwomen who have served or are serving with No 35 Field Dental Unit. The year in which personnel commenced their tour of duty with the Unit is as indicated:

Commanding Officers

Lt-Col WR Cunningham	1953-1955
Lt-Col AC Leman	1955-1958
Lt-Col GR Covey	1958-1961
Lt-Col LG Craigie	1961-1964
Lt-Col JC Brick	1964

Officers and Men

1953 - Majors JC Brick, RA Fell, Capts JCE McDonald, JF Mullins, WO2 W Powers, Ssgts AG Ponton, HJ Stokes, Sgts WB Gilbert, RG Hopkins, CC Jewson, CD Mann, Cpls FB Edmonds, JRE Lalonde, and Pte WR Baker.

1954 - Major RB Jackson, Capts EF Shaunessy, GN Truscott, Sgt KE Laurence, and Cpl AL Strub.

1955 - Majors RJK Pyne, ED Fraser, HS Lankin (Deceased), Capt JWR Harrison, WO2 W McMichael, Ssgt H Hodkinson, Sgts MA James, JV Minelli, and AT Nicholson.

1956 - Major WR Thompson, Capts RJ Bryant, JH Duggan, HG Jorgenson, CR Pugh, Sgt B McLeod, Sgts RJ Coodwin, EM Kennedy, and Cpl EA Jermain.

1957 - Majors PL Falkner, AG Taylor, Sgts JA Gravelle, C Johnston, and KJ Smallshaw.

1958 - Major GE Windsor, Capts HG Bunston, AL Kelland, IAC MacDonald, JT Marshall, GJ Moore, WO2 EM Lobb, Ssgt HC Bilbey, Sgt FG Grundy, and Cpl AJA MacFarlane.

1959 - Major EMC Franklin, Ssgt L Lawson and Sgt KS Rothwell.

1960 - Majors WH Harrington, CJ Sivell, Capts JG Boucher, DH Evans, AT Hinch, WO1 CH Loken, WO2 AG Cross, Sgts A Fox, JM Roberts, H Marckwort, and Cpl WJ Parker.

1961 - Major FD Charman, Capts HK Meisner, JJY Turcotte, and Sgt JF Marchand.

1962 - Major IW Susser, Ssgt JR Savoie, and Sgt BD Wood.

1963 - Majors JL Craig, DE McDermott, Capts JOL Bourget, JM Marion, A VanRyssel, Lt M Kostyniuk, Ssgt WH Shaw, Sgts GR Jennings, and EE McFadden.

1964 - Majors WK Dickie, BA Gaudet, Sgt HM McCurdie and Cpl GM Wadden.

1965 - Capt Y Kamachi.

Airwomen

1954 - Sgts CM Dickie, FJ Haugen, Cpls CA Miller nee Pilkington, SA Morden, KP Palmer, VEG Senior nee Just and AW1 SL Coles.

1955 - Sgts MFE Armstrong, MP Foley, Cpls HE Hagerman and S McMichael.

1956 - Sgt TY Dundas nee Partridge, Cpl MI Redbourne nee Ecklin, LAWs CM Caws nee Lum, and VG Doddridge.

1957 - Cpls JA Brennan nee Skarra, CE Lamb nee Porter and KP Palmer.

1958 - Cpls TF Campbell, MRF Jensen nee Clark, E Morken and LAW H Linkovich.

1959 - Cpls MM Potolicki nee McMillan, and JA Rathe nee Lalonde.

1960 - Cpls DAM Fisher, and GAMJ Ridley nee Joncas.

1961 - Cpls D Ellis nee Wierelejchyk, DJ Hollins nee MacNeil, and LAW JA Keryluk nee Bowes.

1962 - Cpls MCN Jaeger, KP Palmer, SAM Ruzychi nee Bigelow, LAWs MR Matlock nee Thibault, DJM Gagnon nee McNichol and DA Titus nee Turner.

1963 - FS CMB Torrens, LAWs SJ McMillan and JM Patterson nee Roberts.

1964 - LAWs M Kant, and PJJ Lockyer.

1965 - LAW FB Schmaltz.

NOTE: An endeavour has been made to list the names of all the personnel who have served with No 35 Field Dental Unit since 1953. The writer sincerely apologizes if any names have been omitted even though no intent to do so was ever contemplated.

MEDICAL EXPEDITION TO EASTER ISLAND

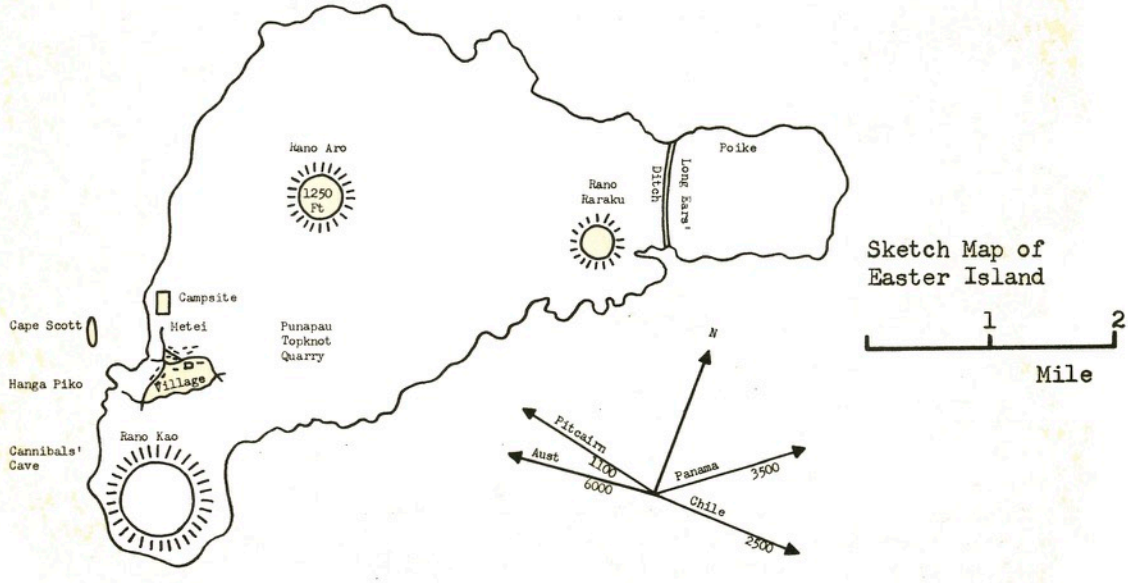
Major A.G. Taylor, CD, DDS

Major A.G. Taylor

GEOGRAPHY

Easter Island, an isolated speck in the southern Pacific Ocean, lies 2,230 miles from the South American coast and 1,100 miles from its nearest inhabited neighbor, Pitcairn Island. A typical volcanic island, roughly triangular in shape, it has a total area of 55 square miles. The climate is subtropical with an almost constant cooling breeze. Rain fall, which is greatest in winter months, averages 50 inches a year and is the main source of drinking water.

The gently sloping hills rise to a height of 1,250 feet and are largely grass covered with a heavy sprinkling of volcanic rocks. There are a half dozen varieties of trees, concentrated mainly in and around the one village, kangaroa, the vast majority of which are Eucalyptus. Sea birds are the only native fauna. Lizards, rats and chickens accompanied the Polynesian settlers. A type of game bird, very similar to the Hungarian Partridge, can be seen in small flocks. Sheep, pigs and cattle were introduced by Europeans.



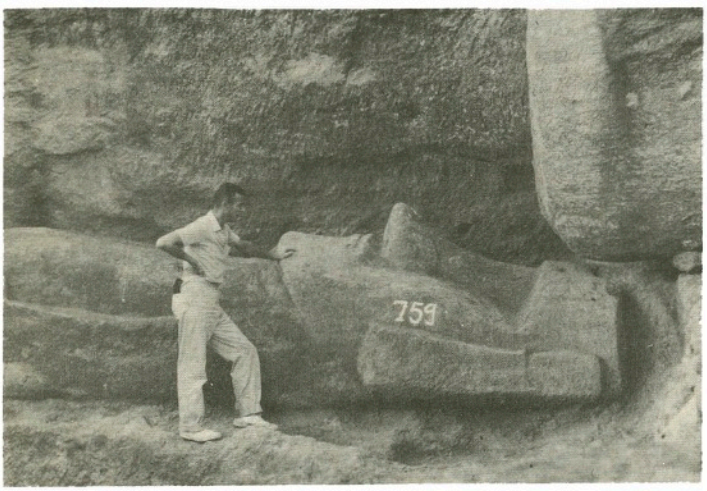
HISTORICAL BACKGROUND

The Norwegian Archaeological Expedition, led by Thor Heyerdahl, from November 1955 to April 1956, made discoveries which threw new light into the dim past of the Island's prehistoric age. It was concluded from the results of radio-carbon dating performed on samples taken from beneath the Island's surface that there were primitve inhabitants there during the 4th century. Earth borings containing pollen showed that the Island was once covered with a forest of palms and coniferous trees. Analysis of soot and ashes bore evidence of a forest fire which destroyed the vegetation and led to the present barren condition.

The historical age of Easter Island began with the Polynesian immigration conducted by King Hotu Matua. According to folklore, Hotu Matua came from another island to the northwest, possibly the Marquesas Group, sometime during the 14th century. It was during this period that wood carving began; the figures that are carved today are based on the original ancient forms.

Easter Island's "Golden Age", a period of astonishing megalithic artistic activity, commenced with the arrival of the "Long Ears". The land they came from remains a mystery; some suggest Peru since the Inca noblemen also had the custom of distending the lobe of the ear with weights so that it hung down to the shoulder. The monumental burial places called ahus, erected by the Long Ears, show resemblance to ancient Peruvian constructions.

As the Short Ears adopted the custom of burying the dead in constructe burial places, many ahus, about 250, were built around the Island, most of them near the coast. Father Sebastian Englert, who has spent many years studying the archaeology of Easter Island, believes that the Long Ears constructed the ahus and the Short Ears carved and raised the gigantic stone images which adorn them. In an old legend are mentioned the stone images brought with the Polynesian immigrants.



Well preserved statue in final stage of carving at the quarry of Rano Raraku

Father Sebastian reasons, "We can imagine that the idea of adorning burial places with stone images was enthusiastically accepted by the great majority of the inhabitants of both races. This is the only explanation for

such a great artistic activity in the quarries of Rano Raraku where there is relatively soft rock composed of lava, sand and stones. More than 600 statues were made, 80 of which were not completely finished and can be seen in different phases of the making; over 60 of the others represent a most perfect workmanship. More than half of the statues were transported to burial places, most of them a great distance from Rano Raraku, and were placed on the platforms of the ahus. This transportation of heavy statues had to be made with the aid of primitive means, ropes made of plant fibres and wooden rollers. The statues had to be lifted up to the platforms; very difficult work and only possible as long as an enthusiastic combined collaboration between the two races lasted.

In the quarry of red pumice at Punapau, near the village, huge topnots were made and transported to distant ahus, to be lifted up and placed on the heads of the statues; this was another difficult work, made possible by combined effort.

The results of these efforts are amazingly great. Nowhere else on earth have so many monuments of sculpture and masonry been made, in such a small place, by a population of hardly more than 3,000 stone age inhabitants who were working freely, not live slaves and had no other remuneration than the satisfaction of honouring their ancestors and embellishing their island".

This great productive industry and harmony between the two races continued for perhaps 100 years or more until the Long Ears tried to dominate the Island. Rivalry and hostilities resulted which finally ended in racial war. The Long Ears withdrew to Poike Peninsula where they prepared a two mile long ditch cutting the Peninsula off from the rest of the Island. The ditch was filled with wood, to be set afire if attacked; they hoped to burn their enemy. The Short Ears gained access to the peninsula and attacked from the front and the rear driving the Long Ears into the flames of their own ditch eliminating all but three survivors. Samples of ashes and charcoal from Poike Ditch submitted to radio-carbon dating showed the time of the event to be about 1780. A short period of peace was followed by tribal wars during which the victors destroyed their enemies' burial places, pulling down the stone statues from their ahus and eating the flesh of the defeated. This period was one of advancing decadence when the inhabitants were submitted to cruelties by members of visiting ships. Between 1859 and 1862 Peruvian slave raiders carried off an estimated 900 natives. About 100 were sent back to the Island but only 15 arrived alive. These few survivors brought smallpox with them which soon reduced the population to 650. In 1870 most of the natives were taken to Tahiti.

Since 1888, when Easter Island, was annexed by Chile, the population has been increasing until the last census, taken in 1965, numbered 949 natives. Today the Island is administered by the Chilean Navy with a Naval Officer appointed as Governor.

FORMATION OF THE EXPEDITION

The Medical Expedition to Easter Island was organized with the aid of an initial grant from the World Health Organization, which is interested in the development of methods for medical field studies. Grants were also received from the Medical Research Council of Canada and the McConnell Foundation of

Montreal. Major pieces of laboratory equipment were obtained on free loan from Canadian and American manufacturers. The Department of National Defence provided the RCN's repair ship H.M.C.S. Cape Scott for transportation of the expedition and construction of the biological station.

Quoting Dr. Stanley Skoryna, Director of the Expedition, "The active participation is a landmark in the direct cooperation of the Armed Forces with medical research for the improvement of health standards of people throughout the world. In addition to the accumulation of significant medical data, the expedition provided valuable information for similar undertakings both in Canada and elsewhere".

OBJECTIVES OF THE EXPEDITION

To carry out an integrated medical survey of the total native population of Easter Island, in order to identify and evaluate the relative role of environmental and hereditary factors in an isolated population. This included investigation of ecological, sociological, anthropological, genetical, microbiological and epidemiological factors.

To study and develop methods of sampling procedures, collection and transport of blood and other biological material.

To assist the population with medical problems with which they are now faced and to which they will be exposed after permanent contact with the mainland has been established.

To establish a biological station for purposes of assistance in the health and welfare of the population and to provide facilities for follow-up study after isolation of the Island has been abolished.

This program was carried out by a team of 38 members of the expedition representing a wide variety of health specialties. Members came from seven different countries: Canada, United States, England, Switzerland, Norway, Sweden and Chile.

ENROUTE TO EASTER ISLAND

With the sound of band music in the background, played by the Stadacona Naval Band, H.M.C.S. Cape Scott steamed out of Halifax Harbour on the morning of 16 Nov 1964. For the first day at sea the sailing was fairly smooth but the next morning brought heavy seas and 70 mph winds. Most members suffered from "mal de mer" and remained in their cabins for the greater part of five days until we reached Bermuda.

Following an overnight stop in Bermuda, the sea had calmed sufficiently to make the three day trip to San Juan P.R. a relatively pleasant journey. Three very busy days were spent in this port; purchasing additional supplies, doing Christmas shopping and receiving expedition equipment which had been forwarded from points in Canada and United States. With the joining of four new members, the ship sailed for the Panama Canal.

The regular routine while enroute was to attend conferences in the mornings and Spanish lessons in the afternoons. During the meetings each member presented his individual project plan and attempts were made to

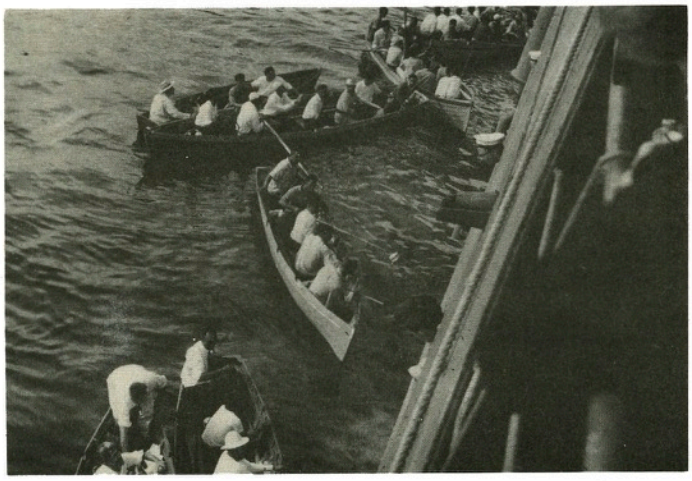
o-ordinate the isolated projects into the overall expedition plan.

The traversing of the Panama Canal provided a welcome change of scenery. Members were impressed with the very efficient manner in which ships were guided smoothly through the canal. Uniformed workers of the Panama Canal Company handled locks and lines with precision. Balboa would be our last opportunity to complete the supply lists; some important items were still missing and would be airlifted to this port. After a two day stop and the welcoming aboard of the four last members, we headed out into the Pacific.

For the ten day journey from Balboa to Easter Island it was very smooth sailing with a calm sea and sunny weather all the way. Our day time hours continued to be filled with conferences and language lessons. At this point the naval officers were holding conferences as well. The landing of expedition equipment and the setting up of the camp were naval responsibilities and had to be planned in detail. The resultant operation order outlined every facet of the six day exercise. On "Day Six", according to the plan, expedition members would move ashore and commence to live and work in our self-sufficient camp.

ARRIVAL AT THE ISLAND

Easter Island was first sighted, a dark shape on the horizon, at 0300 hrs Sunday, December 13, and at 0700 Cape Scott anchored a half mile off shore at Cook Bay. Contrary to our advanced information, the Island was not a "barren rock" as quite a number of trees were in view. Most members, at this point, thought it to be quite a picturesque little island. Our impression of a "primitive people" was altered when the first boats came out to greet us. Some boats had outboard motors, the natives were surprisingly well dressed in western clothing and one native was seen taking pictures of us as we were photographing them.



Islanders came out to meet the ship in small boats

In a very short time two dozen native boats were alongside to barter their traditional wood carvings for soap, cigarettes and clothing. They were very short of supplies as it was thirteen months since the last visiting ship had departed. The Islanders proved to be very shrewd barterers but at the same time they always returned a gift. On one occasion when a water jug was

lowered over the side to offer a cool drink, it was returned containing a wood carving. The trading continued until well after dark when sailors used flashlights to see the trading goods. One sailor offered an electric shaver for some carvings; a native voice from below was heardto inquire, "110 or 220?"

At our first encounter with the natives were were relieved to find them friendly and cooperative. Quite a mixture of racial features and coloring was evident; some typically Polynesian, some blonde with blue eyes, some red heads, others with slightly negroid features and a few quite oriental. They appeared to be a very proud intelligent people who spoke Spanish freely and a small amount of simple English. Gaining their cooperation and being able to communicate with them would greatly simplify our task.

One hour after anchoring, the official party came on board. The party included: The Governor of Easter Island, the Chilean Navy Doctor and the Commander of the Chilean Airforce contingent. Following a brief conference, the party, accompanied by expedition leaders, went ashore to choose a campsite. All efforts were immediately concentrated on moving cargo ashore and commencing the building of the camp.

GETTING ORGANIZED ON THE ISLAND

A campsite was selected near the village of Hangaroa and a beachhead was established at Hanga Piko. The Governor provided two tractors and native labour to transport the cargo from beach to campsite, a distance of two miles. By 1400 hrs on the first day the landing craft was loaded with expedition equipment and on its way to the beachhead. At the campsite the construction crew staked out the ground for positioning of trailers and services. By the end of "Day One" a good start had been made.

Work proceeded according to plan when upon the completion of "Day Three" 78% of the cargo had been landed, nine trailers were erected and the mechanical still had been set up. Everyone worked enthusiastically for twelve hours a day to meet the challenge of this unique and interesting situation and to keep up to the schedule laid down in the operation plan. Cape Scott officers and crew, expedition members and natives all worked well together.

My diary records the situation as it was on 17 December: "We are just finishing "Day Five" and a tremendous amount of work has been accomplished in the last five days. The expedition site will be completed by late "Day Six" including: the setting up of twenty-four trailers, three generators, water distillation unit, pump and the usual facilities. The Ship's Company have been doing all the technical work with assistance from the METEI group to handle some of the labour. The natives have been very willing workers both on the beach handling supplies and at the campsite doing construction work. In return for their efforts the native people received food and small gifts.

At the moment there are many sore muscles and badly scraped hands from doing this rough work but, after being physically inactive for so long on the ship, the work is quite enjoyable. Everyone is pitching in willingly to get the job done and returns to the ship in the evenings at dusk, very much ready for bed. Some of the travelling from beach to campsite is done on horseback which adds for a few more sore muscles in the usual spots".

There was a fair amount of horseback riding during our stay on the

Island and some members became accomplished riders. There were about three horses per family so mounts were always easily obtained and could be rented by the day for a cake of soap or a pack of cigarettes. Personally I found it a better arrangement to have a horse for the entire two month period and was fortunate indeed to have one provided as a gift by an early acquaintance. An agreement was made with a native boy who cared for the horse, bringing it from the pasture every morning at 0800 hrs and returning it each evening at dusk for feeding. These animals were generally ill-kept and undersized but made good mounts for novice riders as they were quite docile and answered well to gentle neck reining. The saddles were makeshift and very rough which accounted for some of the above mentioned sore spots.

Easter Island
"Transportation"

On "Day Six", the day we were to make our one way trip ashore, I was up a 0445 hrs to look after last minute details onboard. We loaded our baggage into the landing craft and headed for shore. My thoughts at that moment, again referring to the diary, were: "As we prepare to land on the beach, my general impressions are: The camp is well set up due to a magnificent job done by the Ship's Company, the natives are very friendly and cooperative, the expedition will be successful and the whole experience should be an interesting one".

THE MEDICAL PROJECT BEGINS

On Monday, 21 December, Cape Scott weighed anchor and sailed east to commence a goodwill tour of Chile and Peru. As the ship disappeared from view I am sure many of the expedition were thinking, "What a welcome sight it will make upon its reappearance two months hence". There was a great deal of work to be accomplished in the meantime.

The camp was located as shown in the sketch map. Twenty-four prefabricated trailers were used as living quarters and working spaces. These trailers, provided by Alberta Trailer Company, consisted of a fiberglass roof with aluminum covered walls lined on the inside with mahogany siding. The well insulated structure had a linoleum covered floor and screen doors and windows. Each unit measuring 20'x10'x8', was mounted on iron skids and accommodated four members. The layout was designed to keep the working section of the camp separated from the quarters. With the placement of a gate between the two sections, some privacy was maintained in the living area.

The camp was self-sufficient, we had all of the required supplies, power and water. Now we had to unpack and set up equipment, build shelves and workbenches into the laboratories and get settled into a camp routine. We decided to carry out these tasks during the Christmas season and to be prepared to receive the first group of subjects for examination at 0800 hrs Monday, 28 December.

The two epidemiologists were busy at this time preparing a census, locating and numbering all houses, and making appointments for families to come for examination. Records and maps were available at the Governor's office which greatly assisted in the location, identification and scheduling of the native population.

There were 949 subjects each of whom wore an identification card which showed: his number, name, age and stations to be checked off as he progressed through the examination. Each subject first reported to the reception office where he was registered. After a detailed history was taken he was submitted to the following examinations: dental, anthropological, medical, radiographic and laboratory. Upon the completion of these examinations, photographs were taken and each subject was given a gift of clothing. In addition to the routine examinations, an electrocardiogram was done on all subjects over forty. When abnormal conditions were found follow-ups were done and treatment administered where indicated.

The dental study which was carried out on adult subjects of 18 years and older, included the following: charting, impressions, skull and intraoral x-rays, facial photographs and saliva samples. Data were transfered from charts and radiographs to IBM cards which were sent to the New York State Health Department where the Dental Research Division had agreed to process and analyse the material.

CHRISTMAS ON EASTER ISLAND

Christmas was observed by having a special dinner served in the camp. All members attended the service in the Catholic Church conducted by Father Sebastian Englert which included Polynesian Carols beautifully sung by the native congregation. A Christmas tree, brought by Cape Scott, was placed in front of the camp and decorated. Unfortunately it soon withered in the hot sunshine.

EARLY MINOR PROBLEMS

During the first two days of examinations a few minor problems arose which caused delays in the system; too many subjects at one station and not enough at another, unappointed natives loitering in the reception area and subjects were becoming separated from their sample trays. These problems were solved at a conference and thereafter an average of thirty subjects a day were appointed which was found to be the maximum number that could be handled efficiently. For the dental and anthropological sections, who were examining adults only, this meant about twelve subjects a day.

Soon after our arrival we learned that the Chilean Navy had decided to recall the physician and the dentist, both naval officers, to Chile. Responsibility for the health of the Islanders fell to the expedition. A roster was set up so that one of the members was on call for hospital duty at all times.

At first I thought that the amount of time spent on emergency work would seriously hinder progress with my expedition project. It was found that one hour a day, after the completion of expedition work, would handle the demands for emergency treatment.

NATIVES LOVED MUSIC, DANCING AND SINGING

The Islanders were very talented with musical instruments; they learned our western tunes very quickly and played them well. The accordion was most popular and many played guitars and harmonicas. All were in short supply as there were always more players than instruments. At any gathering where music was played there seemed to be only one accordion which was passed from one player to another as the evening progressed.

The "Sau Sau", which was the native dance, was somewhat Hawiian in nature as the dance told a story expressed with the hands and the performers wore grass skirts. The dancers were accompanied by guitars, singing and hand clapping. Many "Sau Saus" were held at the camp.

To celebrate a special occasion an earth oven feast was served following the dance. At 1000 hrs on the day of the celebration an oven was prepared by digging a large hole in the ground, lining it with rocks and then lighting a fire in the hole. When the rocks were well heated, a layer of banana leaves was put in, then a layer of meat followed by more banana leaves. When the hole was filled with the alternating layers, a final layer of leaves was added and covered with earth. The meat: beef, mutton and pork was allowed to cook for ten hours. Upon the completion of the dancing performance the steaming well cooked meat was exposed and served to the gathering who sat waiting around a large circle of banana leaves on the ground. These were always very joyous occasions.

COMMUNICATION

Since the mail system on Easter Island depended on passing ships and there was only one ship a year actually scheduled, other means of communicating with Canada had to be arranged by the expedition. The CBC provided a radio operator with equipment and schedules were prepared for contacting homes and offices. "Ham" operators at various points in Canada, United States and Europe made connections whereby families were able to use their home telephones to hold regular conversations with members on the Island. Through this system I was able to converse with my family every Thursday morning at 0900 hrs Halifax time, in some instances, from the ship while at sea. One Saturday morning, half way through the expedition, the Commanding Officer of No. 12 Dental Company, Colonel R.H.G. Cunningham received a progress report via ham radio. One of our most faithful "hams", who spent many hours at his set listening for the Easter Island call signal, was a Montreal dentist.

VISITS TO THE STATUE QUARRY

Rano Raraku volcano, located nine miles from the camp, was the object of several day long visits. It was here in the quarry that the Island's 600 gigantic stone statues were carved and where 80 statues, in all stages of the making, could be examined. The huge carvings were found to vary in size from 15 to 60 feet long and weighed an estimated 5 to 30 tons. Some, protected by the over-hanging rock as they lay in the quarry, were well preserved. Others, standing in the open, showed signs of weather erosion.

I picked up a stone carving tool, where it had been dropped 200 years ago when tribal war caused the cessation of work in the quarry, and tested it on the rock beside one of the carvings. The relatively soft rock, composed of lava, sand and stones, was found to have a hard, dry outer-layer beneath which it was soft and moist. Although carving the great statues must have been a tremendous task, the stone tool handled well and the quarry rock carved more easily than I had supposed.

As I stood among the statues high in the quarry and surveyed the coastline where distant ahus were located, my thoughts were of earlier times when this now quiet scene was one of great activity. Mrs. Katherine Routledge, in her book "The Mystery of Easter Island", described the feeling beautifully when she wrote, "In many places it is possible in the light of great monuments to reconstruct the past. In Easter Island the past is the present, it is impossible to escape from it; the inhabitants of today are less real than the men who have gone; the shadows of the departed builders still possess the land".

WORK PROGRESSED AT THE CAMP

As the weeks went by work continued to progress well, subjects were coming in just as fast as we were able to handle them. It was anticipated that during the final week there would be a problem getting the last few subjects to come in so as to bring the survey to completion. The expedition Director was determined that we would examine 100% of the native population.

THE EXPEDITION RETURNED TO CAPE SCOTT

Having been appointed by the Director to plan and oversee the movement of expedition cargo to the ship, my own project was terminated two weeks before the return of Cape Scott. This assignment involved: making a detailed plan of the operation, assigning of duties to camp members, the packing of equipment and samples and arranging for transport to the loading site at Hanga Piko. The most important part of the movement was the transporting of two freezers and three frigidaires containing samples. Since there were no

R. Major A.G. Taylor
L. Dr. John Cutler of Berkley California

mechanical devices for lifting these heavy containers, they had to be manhandled onto the trailers. A small gas operated generator was used to keep the freezers powered during movement on the trailers and in the landing craft. Since the contents of the coolers were fragile as well as subject to spoilage, these containers had to be moved carefully but quickly to the ship anchored a mile off shore.

All non-priority equipment was moved and stored at the jetty the day before the ship arrived. The ship anchored off Cook Bay at 0900 hrs on February 10. When the crew was ready to receive our cargo, the priority material: samples, records and personal baggage, was sent to the jetty. The whole loading operation went smoothly and was successfully completed in one day.

DEPARTURE FROM EASTER ISLAND

The Cape Scott remained alongside for three days, during which the Ship's Company had another opportunity to see something of the Island and all members attended farewell functions. The ship gave a party ashore for the entire population and the Islanders gave a feast and dance for members of the Ship's Company. The last farewell scene at Hanga Piko was a rather sad one with a large group of natives there to wave goodbye. The Island population became attached to the expedition group, which is understandable, since it was not often that visitors remained for such an extended period on their isolated Island.

STOP AT GALAPAGOS ISLANDS

Enroute to Panama, we stopped for a day at the Galapagos Islands. A visit was made to the Charles Darwin Biological Station which was established by UNESCO on Santa Cruz Island. Here we had an opportunity to see and photograph the Iguana and the giant tortoise. Following a short tour of the area, we met at the hotel for a very enjoyable lunch before returning to the ship. Since there was no dentist on the Island I was not greatly surprised, upon my return, to find three Islanders waiting for treatment at the ship's dental clinic.

SYMPOSIUM AT BOGOTA

Following a three day stop at Balboa and a hectic round of cocktail parties, the ship sailed through the Panama Canal to Cartagena. The Columbian Government invited expedition members to fly to the capital city, Bogota, to attend a symposium with 25 Columbian scientists from three Universities. The Columbian Airforce provided transportation to the Captial located 450 miles inland. The symposium, held at the "Universidad Nacional", was a successful and interesting experience.

RETURN TO HOME PORT

On 7 Mar 65, Cape Scott sailed on the last leg of our 10,000 mile journey. There was a great deal of work to do during the ten days sailing to Halifax. All members contributed to a 73 page preliminary report, 300 copies of which were assembled and bound for presentation upon our arrival at Halifax. We sailed into Halifax Harbour on schedule, March 17, to be greeted by a large official party and a group of 21 newsmen. Expedition members attended a news conference and an official reception before making individual farewells as we went our separate ways.

The RCDC News

Directorate

Duty Trips and Visits

Brigadier KM Baird, accompanied by Col BP Kearney, officiated at the opening of new dental accommodation at HMCS Naden Esquimalt, BC and HQ BC Area, Vancouver during the period 12-15 April. The Director visited Quebec City 25-29 May to participate in the annual meeting of the Board of Governors of the Canadian Dental Association.

Colonel IAL Millar, Deputy Director General of Dental Services, represented the DGDS in Camp Borden 1-3 Feb at a conference related to the integration of training for the Armed Forces. Col Millar was the conducting officer for the 2nd phase DOSP cadets during their RCAF indoctrination tour of No 1 Air Division, Europe 10-25 June. Following this he represented Brig KM Baird at the 53rd Annual Meeting of the Federation Dentaire Internationale in Vienna, Austria 26 Jun-2 Jul at which time he presented a paper, "Formation of Military Dental Health Teams".

Colonel Leman Retires

Colonel AC Leman, Senior Consultant for the Corps for the past two years, commenced retirement leave 28 Jun. Col Leman joined the Corps in early 1940. Following overseas service he returned to private practice in Toronto, Aug 1945. He again enlisted in Aug 1947 and served in the following senior appointments: CO of 35 Fd Dent Unit, CDO, Central Command and CO of 13 Dent Coy and finally as Senior Consultant. He and his family will be residing in London, Ont. An informal gathering of RCDC officers in the Ottawa area was held mid-July at the Army Mess to bid farewell to Col Leman at which time a presentation was made by Brigadier KM Baird.

Directorate Officers Promoted

Lt Col GC Evans has been promoted to the rank of Colonel and appointed Command Dental Officer Western Command replacing Col BP Kearney who is now employed at the Directorate. Major AW Brusso, Senior Procurement Officer, has been promoted to the rank of Lt Colonel.

11 Dent Coy

Anniversary Celebrations

The 50th Anniversary of the Corps was celebrated 30 Apr-2 May in Edmonton. The events included a mixed formal dinner at the Western Command Officers' Mess with 73 in attendance, an all ranks mess dinner at the Griesbach Sergeants' Mess for 42 RCDC regular force personnel and church parades on the Sunday morning.

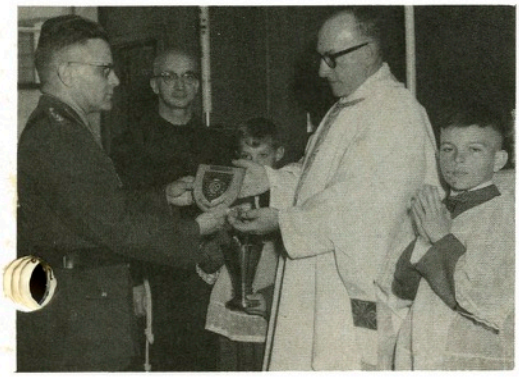
Sports Events

No 11 Coy was represented in the Western Command Curling Championships held in Winnipeg 15-19 Mar 65. This competition included two teams from Manitoba, Saskatchewan, Alberta and British Columbia Areas. The Championship was won by a BC Rink with Sgt Christiansen playing third. The Alberta team of which Col Kearney was a member finished in third place.

Sgt Marckwort competed with distinction in the Command Ski Meet at Banff and the Army Championships at Valcartier.

12 Dent Coy

Anniversary Celebrations



RCDC shields were presented by Col RHG Cunningham to the Protestant Chapel in Halifax 25 Apr, and to the Roman Catholic Chapel 2 May.

L. to R. Col RHG Cunningham, Capt E Cremona and Major PE Berube at the RC Chapel

Sports

Capt JH Quackenbush skipped his team to the senior curling championship of Nova Scotia.

Majors TD Cobb, RH Headley, Capt BG Johnston and WO 2 DD Robertson won out over 32 teams for the Maritime Movers Curling Trophy 20-21 Feb 65 and were runners up in the Eastern Command Bonspiel which was held on 12-14 Mar 65.

HMCS Cornwallis hospital hockey team coached by Ssgt RF Matheson and on which Capts Archambault and JEG Brissette and Cpl JAL Boulianne were playing, was eliminated in the semi-finals of the inter-part tournament.

Cpl CM Martell won the high triple with a score of 828 in the Eastern Command Bowling tournament at Camp Gagetown 21-25 Feb 65.

Capt JF Mullins, Sgts LG Flesher, EA Jermain, JG Kay and Cpls DJ Davies and CM Martell won the Halifax Garrison Bowling League championship 20 Apr 65. Sgt Jermain also had the high single.

Major and Mrs RE Dyer, Col and Mrs RHG Cunningham and Major and Mrs HJ Cashin won the officers mixed Halifax Garrison Bowling Leaque championship.

13 Dent Coy

Dental Society Meeting

The April meeting of the Bay of Quinte Dental Society was held in the Officers' Mess at RCAF Station Trenton. The speaker was Major DN Newell from the RCDC School, who presented two excellent lectures on diagnosis and treatment of periodontal problems. Dinner was served in the private dining room, and following a toast to the RCDC proposed by Lt Col NA Butcher, a decorated 50th anniversary cake was cut and served to the guests.

Anniversary Celebrations

The RCDC 50th Anniversary was celebrated at RCAF Station Trenton on 18 Jun 65, with a Golf Tournament, followed by a dinner and social evening. Between fifty and sixty golfers participated in the event, and a few non-golfers were entertained by other activities, including a boat cruise on the Bay of Quinte. Personnel from the RCDC School, 1 Dent Det and 1 Dent Eqpt Dep participated. Sgt WE Hill of 1 Dent Det was tournament champion.

As one of the local celebrations of the RCDC 50th Anniversary, an all ranks party was held in London at the "Friar's Cellar" on 11 May 65. This was a highly enjoyable occasion attended by personnel and wives or girl friends from Clinton, Centralia and London.

Fishing Derby

Trenton area personnel of 13 Coy held a Fishing Derby on 9 Jun 65 at Wellers Bay. The prize for the largest fish was won by WO1 RH Daw, second prize when to WO2 EE Mazerall and a consolation award to Cpl RD Veinot. No one had catches which would break any records, but all enjoyed the fresh air, and the refreshments which followed.

Notice

The Third Annual Golf Tournament will be held in Camp Borden 24-25 Sep.

14 Dent Coy

Anniversary Celebrations

The 50th Anniversary of the RCDC was celebrated on 3 Apr 65 in conjunction with the Unit's Annual Bonspiel, followed by dining, dancing and the awarding of prizes. The 50th Anniversary was further celebrated by the Annual Posting Party held for personnel in the Winnipeg Area on Friday 28 May 65 at RCAF Station Winnipeg.

Commendation - City of Winnipeg

SD 190344 Sgt Yeates JRC received an award from the City of Winnipeg for his services in the Fort Rouge Community Centre and for Guide and Scout Instruction in the district of Tuxedo.

15 Dent Coy

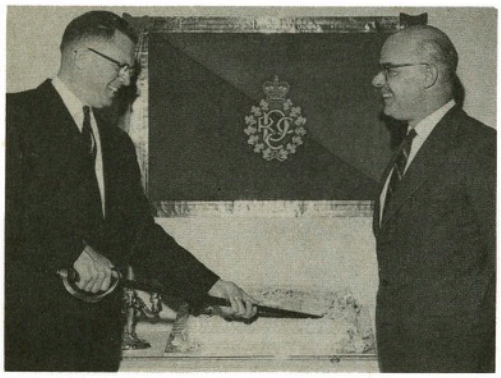
Anniversary Celebrations

An all ranks formal dinner was held at RCAF Station St Jean 7 May 65 to celebrate the Corps Anniversary. Guests of honour were: W/C DK Deyell, representing G/C GK Cameron, Commanding Officer RCAF Stn St Jean, Dr VHT Jekyll speaker of the evening and Drs AR Ramsay and HE McKenna.

L. to R. Sgt JLJ Boulanger, Cpl JRR Roy, Cpl RE Thompson, Lt Col FD Charman, WO2 HEG Franzgrote, Ssgt JAJ Fret

4 Fd Dent Coy

Anniversary Celebrations



On 20 May a mixed all ranks party was held at 1 Tpt Coy Sgts' Mess in Fort Chambly. The well attended party was held both to fete personnel returning to Canada and as a 50th Anniversary Celebration for the Dental Corps.

L. to R. Lt Col G MacDougall, Col WK Lye, Commander CBUE

35 Fd Dent Unit

Special Events

35 Fd Dent Unit was host to a dental study group composed of dental Officers from the US Army, US Air Force and the RCDC.

Capt Kostyniuk and Sgt Jennings with their families represented the dental element at a combined church service for all Protestant French Nationals of Metz.

Sports

Pte Bob Clarke our Tpt Operator was on the winning Air Div Basketball team in the High School and Air Div HQ League. In the inter-mess volleyball his team reached the finals.

Sgt Jennings was a member of the Sgts' Mess Volleyball Team that reached the semi-finals in the Inter-Mess League.

Cpl Wadden and his air force partner won the Sgts' and Cpls' Mess Cribbage Tournament in March.

CBU (UNEF)

Leave and Tours

In March Capt JHG Charron was able to arrange 24 days leave at his home in Laval, PQ and in June took a 4 day tour of Jerusalem. Ssgt Shappee, Sgt Sabine-Pasley and Cpl Harrett spent seven days in June at the UNEF leave centre, Beirut, Lebanon.

Special Events

The CBC party, UNEF Showcase, featuring Gordie Tapp, Tommy Common and troupe played a special show before all members of the UN Force on Canada Day sponsored by the Canadians who were the hosts in Camp Rafah.

One "bright" event was the visit to the Dental Clinic by "Miss Canada 1965", Linda Douma.

Welcome to the Corps

A cordial welcome is extended to the following personnel on their recent graduation and promotion to Captain: Captains AF Brothers, RF Cooper, EF Foley, GR Nye, HS Wood, GS Zwicker from Dalhousie University, Halifax, NS; Captains JA Boucher, HJ Nadeau from University of Montreal, Montreal, PQ; Captain DN Charles, McGill University, Montreal, PQ; Captains Z Tukums, JC Wambera from the University of Toronto, Toronto, Ont; Captains DG Jones, JD McCallum from the University of Manitoba, Winnipeg, Man; Captains RB Andrews, JJ Anderson, BB Berezan, WG Ebert, FH Harreman from the University of Alberta, Edmonton, Alta.

Other new members in the Corps are: Ptes RF Abfalter, ML Allen, JAN Audet, F Bosch, GB Bristow, GN Challenger, TV Girdlestone, KV Hansen, LR Hatcher, NJF Hope, MG Olinik, WG Palmer, LA Russell, NB Sharp, Mr DW Chalmer, Mrs A Bickley and Mrs D McClary.

Professional Training

University of Michigan - Ann Arbor, Michigan

Lt Col Charman - Minor Oral Surgery - 39 Mar-9 Apr 65. Major DJ Carmichael - Crown and Bridge - 8 Mar-19 Mar 65.

The Doctors Hospital - Toronto, Ontario

Major DJ MacPhee - Oral Surgery - 26 Apr-18 Jun 65.

US Naval Dental School - Bethesda, Maryland

Lt Col CM Cornish - Oral Pathology - 8 Feb-12 Feb 65. Major JI Gordon - Crown and Bridge - 19 Apr-23 Apr 65. Major JCE McDonald - Crown and Bridge - 19 Apr-4 Jun 65. Captain MN Deyette - Crown and Bridge - 19 Apr-23 Apr 65.

RCDC School - Camp Borden, Ontario

Officers Clinical Course - 15 Feb-19 Mar 65

Lt Cols JG Bulter and NA Butcher, Majors C Brown, HJ Cashin, JLY Cryenne and DR Girard.

Training

RCDC School - Camp Borden - DT Lab Gp 4 Course - 10 May-18 Jun 65

Sgts RJ Goodwin, RJJ Tremblay, RA Malpas, NC Petersen, GE McGunigal, AM Jerome, DB Wood.

DA Gp 1 Course - 22 Mar-30 Apr 65

Cpls WB Looker, RC Wormington, Ptes JA Atherton, JAN Audet, HE Ayerst, GH Challenger, JD Clark, JD Cormie, RW Danyluck, HBM George, TV Girdlestone, FN Hagglund, KV Hansen, JAP Hogan, RK James, H Kalmet, GK McDonald, HJ McGillivary, JB McEwen, MG Olinik, JP Pitchford, GW Porteous, JR Ritchie, DF Ross, LA Russell, EJ Schultz, NB Sharpe, JLE Viollette, and Mr TM Hicks.

Promotions

To Col - GC Evans; To Lt Col - AW Brusso; To Major - JCRR Roy, Y Kamachi; To Capt - M Kostyniuk.
To WO1 - JE Shiner, AJ Greco; To WO2 - JA Fraser, AS Field, VR Kidd, JH Sadler, SE Robertson, CC Jewson, C Johnston; To Ssgt - DR Piche, FM Kennedy, WD MacDougall; To Sgt - DL Fenton, PD Peterson; To Cpl - PE Harkin, AM Burns, WPC Harmer, DS Smith, RE Todd, JM White, AH Peck, J Van Hemert.
RCAF to Sgt - GAMJ Ridley; To Cpl - EC James, JM Mackie, MTV Lapointe, FB Schmaltz.

Retirements and Releases

Col AC Leman; Maj HE McKenna; Capts DS Campbell, PA Dailyde, WJ Froese, VD Kvedaras, JJPG Roussel, WTH Harley, JGB Parent, AB Perkin, J Vincent; WO2 W Powers; Ssgt FR Taylor; Sgts BW Holtham, GD Schwarze; Cpls PAP Hughes, PA McCoy; Ptes SD Delnick, RG Moffatt, G PaL Morissette, WA Cathcart. RCAF Cpls MHC Jeager, PLM Kennedy; LAWs MOB Golembioski, MJ Gregerson, PJJ Lockyer, J Green; AW2 JE Wood; Mrs S Carey, Mrs EM Onlock.

Vital Statistics

Marriages - Pte LE Wannamaker to Mary Anne Hanake.

Births - Son - Cpl & Mrs CS Brown, Lt & Mrs EA Church, Sgt & Mrs JP Dignard, Cpl & Mrs Dumas, Cpl & Mrs BA Green, Capt & Mrs JPA Legendre, Ssgt & Mrs RF Matheson, Sgt & Mrs FK MacKay, Cpl & Mrs DT McRoberts, Cpl & Mrs LJP Nadeau, WO2 & Mrs DD Robertson, Ssgt & Mrs JR Savoie. Daughter - Capt & Mrs LA Armstrong, Maj & Mrs JF Begin, Pte & Mrs RW Danyluck, Ssgt & Mrs J Dion (twins), Pte & Mrs HE Lubitz, Pte & Mrs JP Pitchford, Capt & Mrs JR Robertson, Maj & Mrs JY Turcotte.

Deaths - WO2 GM Armstrong, Col FR Drewry (retired).