

CANADIAN  
FORCES



# SENTINEL

OCTOBER 1966





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# SENTINEL

VOL. 2, NO. 8,    OCTOBER 1966

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HMCS Fraser, the seventh and last St. Laurent class warship to be converted to a helicopter-destroyer, was commissioned 22 October at Montreal. The conversion entailed fitting the ships with a hangar and landing platform for heavy, all-weather helicopter operations, installation of variable depth sonar and improvement to their anti-submarine systems.

This magazine is published ten times each year in the English and French languages by the Directorate of Information Services, Canadian Forces Headquarters, by authority of the Chief of the Defence Staff. Views expressed are those of the writers and do not necessarily reflect official opinion or policy.

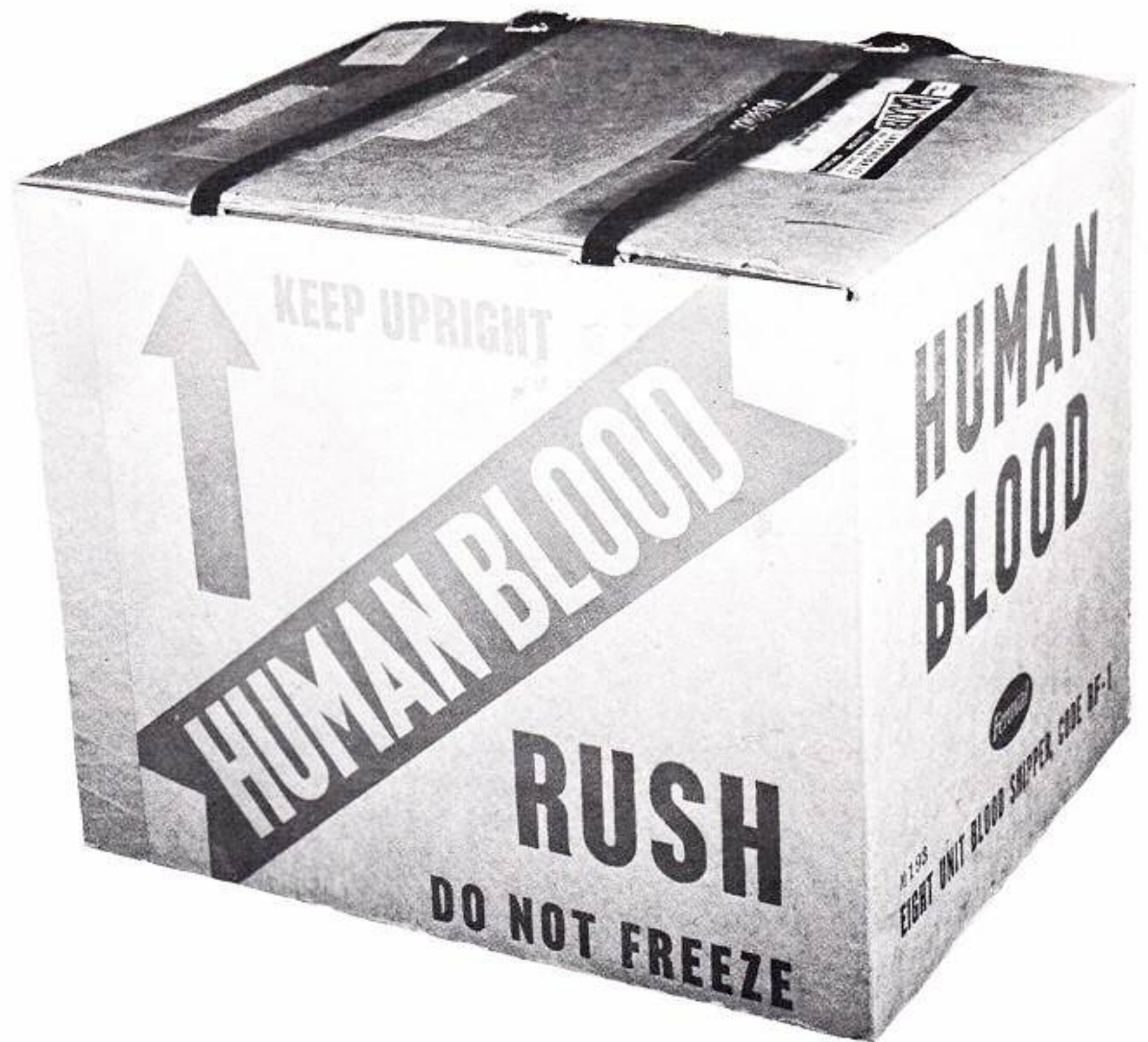
**SUBSCRIPTIONS:** The **SENTINEL** may be subscribed to at the rate of \$2.50 per year; outside of North America, \$3.50. Orders, accompanied by cheque or money order made to the Receiver General of Canada, should be sent to: The Queen's Printer, Dept. of Public Printing & Stationery, Ottawa, Canada.

**COMMUNICATIONS,** other than those relating to subscriptions, should be addressed to: Editor, Sentinel, Kildare Barracks Annex, 312 Laurier Ave. E., Ottawa 2, Canada.

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# RARE BLOOD BANK

by WO2 J. L. Wilson

The size and shape of the boxes inside the modern looking deep-freeze remind you of those frozen dinners that some bridge-party widowers can prepare in a few short words. There, all comparison ends.

This particular deep-freeze is tucked into a small back room of a laboratory on the sixth floor of the National Defence Medical Centre in Ottawa. And the boxes — their tops halved by a blue or yellow marking stripe and coded symbols

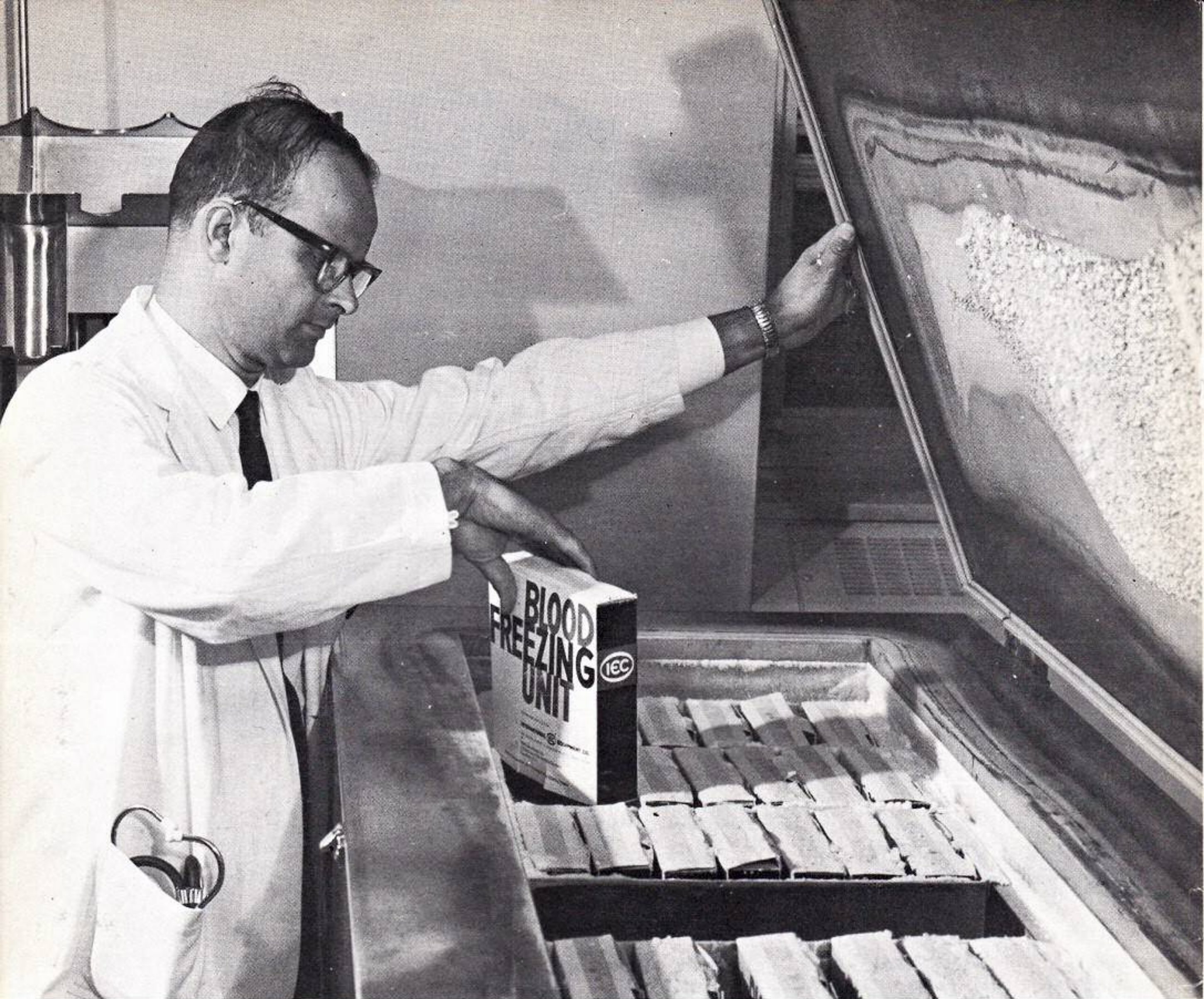
— contain folded-over plastic sleeves that hold some of the rarest human blood cells in the world. Some, in fact, hold the blood cells of a Canadian donor whose blood type is at present the only one of its kind known. Those units are being stored against a day when the donor might require a transfusion.

Next to the deep-freeze is a machine which looks as if it belongs in a bottling plant. It is a Huggins Cytoglomerator, and performs the complex job of proces-

sing donated blood for packaging and storage in the deep-freeze. It can also reconstitute the blood for shipment in 40 minutes, handling up to five units at a time if necessary. The reconstituted blood can then be made available to any hospital in the world within hours, using Air Transport Command aircraft or commercial carriers.

These two pieces of equipment — the cytoglomerator and the deep-freeze — are the nub of Canada's rare blood bank,





*The box that Dr. Roger Perrault is lifting from the deep-freeze holds a folded-over plastic sleeve containing human blood cells. The cells will next be thawed, washed, suspended in a saline solution and bagged in a plastic pack for use or shipment within 40 minutes.*

the only one of its kind in the country. There are about 10 others in the United States.

Planning for a rare blood bank in Canada began in April 1964. It involved the Department of National Defence, the Department of National Health and Welfare and the Defence Research Board. The project was completed in January 1965. Then, on 11 August 1966, NDMC was officially designated the rare blood bank for Canada, jointly involving DND and the Canadian Red Cross blood transfusion service.

In mid-September there were 24 units of very rare blood in storage at the bank which can handle about 125 units. So far

as is known, units can be kept without deterioration for five to eight years, possibly much longer.

Donations are collected from volunteers by the Red Cross in the amount of 500cc. The blood is then sent to NDMC, usually via Air Canada, in a container surrounded by tins of ice and packed in a heavy-duty cardboard box. When it arrives at the bank, the blood is processed on the cytoglomerator which extracts the plasma and leaves blood cells in the amount of 300cc. The cells are put into a plastic sleeve about three feet long, and mixed with a glycerol solution. The partly-fluid blood cells are then spread out along the length of the sleeve, which is

folded and placed in a carton. The carton then goes into the deep-freeze unit which maintains a constant temperature of  $-85^{\circ}$  C., — about four times colder than a home freezer.

When needed, the frozen cells are taken from the refrigerator and put back on the cytoglomerator which this time cleans the red cells of the protective glycerol by washing them three times with a sugar solution. The final step is to suspend the cells in a saline solution and to bag the result in a plastic pack connected to the original sleeve. This pack is used to administer the transfusion.

Surgeon-Lieutenant Roger A. Perrault, RCN, a graduate of Ottawa University,



has been connected with the blood bank project for the past two years. At present he oversees the function of the bank at NDMC, assisted by Miss Marie Charlebois, a medical technologist who trained at Ottawa General Hospital.

Dr. Perrault said the Red Cross depots across the country file the names of Canadians found with rare blood. The names are then catalogued by the Society's head office in Toronto, which in turn decides which blood types are rare enough for collection; either for possible world-wide use, or personal use in an emergency or during elective surgery.

To date, people with blood rare enough for collection have been found in all but three of Canada's provinces. That is not to say, however, that those three provinces aren't without possible donors. "It is difficult to establish the percentage of people who have rare blood, and where they are," Dr. Perrault said. "In fact, a lot of people who have rare blood don't

know it. The only means of discovery would likely be through hospitalization or as the result of making a donation of blood to the Red Cross. Otherwise, it involves an exhaustive amount of testing." He added that blood types vary widely and that their classification is a very complex business.

Dr. Perrault also said that there is no positive reason for the rarities other than genetic variations and that blood types are not restricted to any particular race.

When rare blood is found, however, there are several techniques now available for its processing and storage.

The process used at NDMC was developed by Dr. Charles Huggins, Associate Professor of Surgery at Massachusetts General Hospital in Boston. It has been adopted by Boston's Chelsea Naval Hospital where two-year old processed and frozen blood has been reconstituted and used extensively. The pilot project at Chelsea has been termed a success by

specialists. Continued success will be a major medical triumph in civilian and military medicine; and detailed studies are encouraging. These studies have established not only that frozen-thawed-washed blood cells can be safely transfused as reconstituted blood, but that in many cases they are preferable to fresh blood. Moreover, the processed blood cells can be kept for a considerable length of time — perhaps indefinitely.

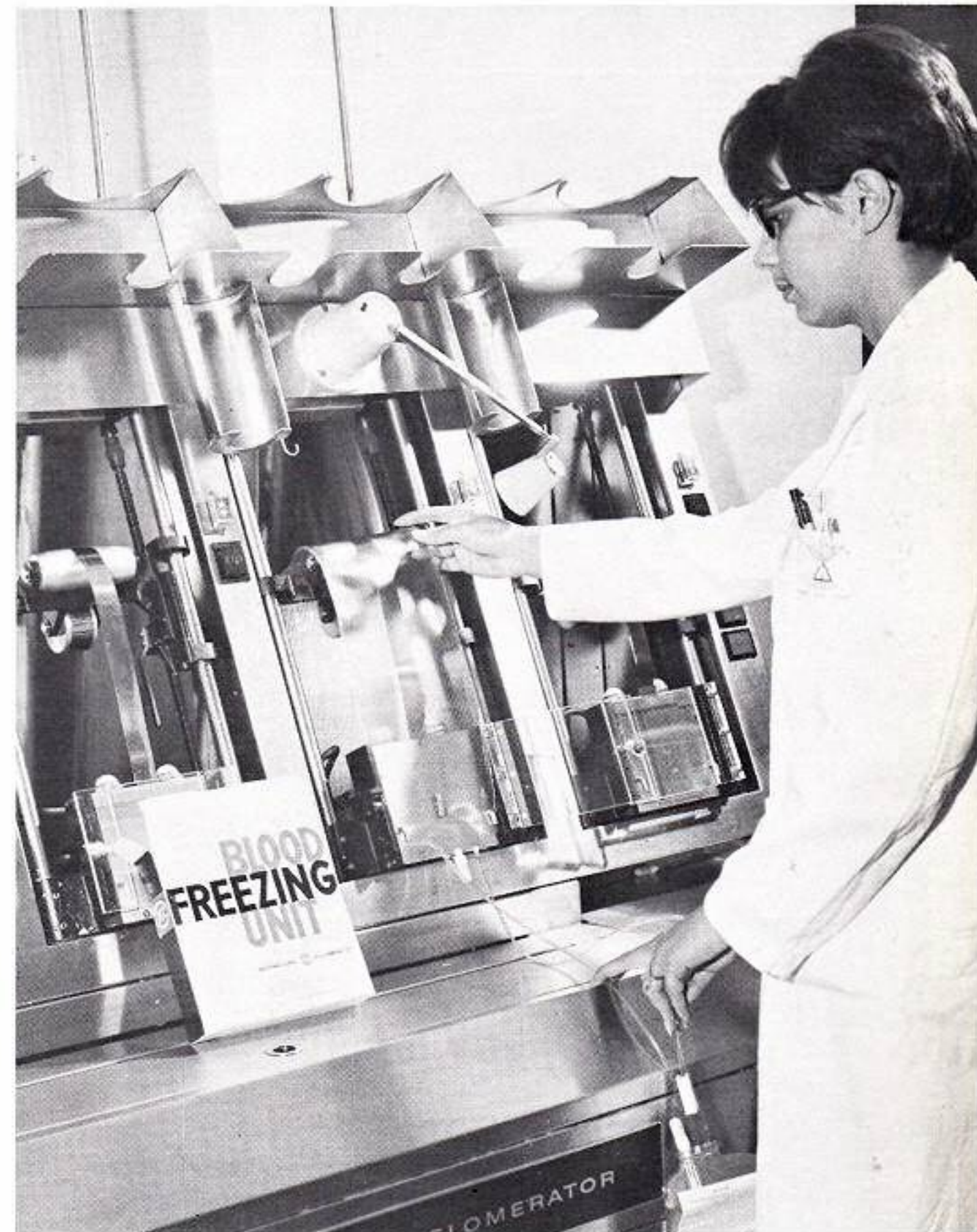
The National Defence Medical Centre handles the processing and storing of the rare blood, and the Red Cross acts as the supply and issuing agency.

To date, no requests for rare blood have been received at the bank. But when one does come, two humanitarian agencies acting in concert will make less absolute a famous precept of Hippocrates, the father of medicine. "In all abundance there is lack."

In at least one respect that precept is no longer wholly true. ❁



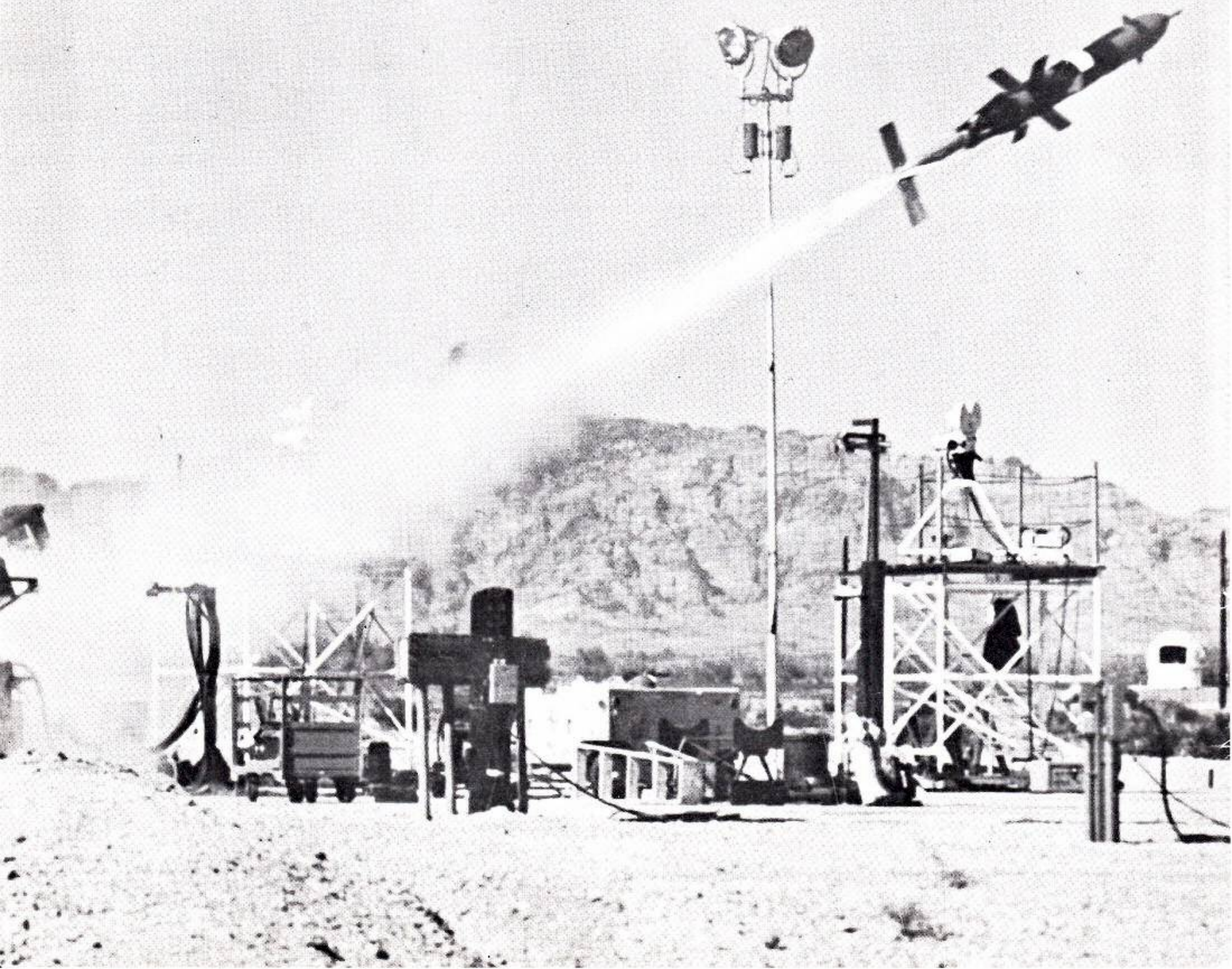
*Dr. Roger Perrault works with a fractionating column used when blood testing in order to separate the various components of the fluid.*



*The plastic sleeve in Marie Charlebois' right hand is used in storing and reprocessing blood cells. The transfusion pack is at bottom.*



# NEW TWIST IN RECCE





# A Canadian invention for snooping

## photographically over enemy terrain

### moves toward tactical evaluation.

An aerial vehicle capable of making quick sorties behind enemy lines and returning with accurate intelligence information for the field commander would seem almost too good to be true. Such a vehicle, the AN/USD 501 (formerly CL89) short range reconnaissance drone, is now undergoing trials.

The drone is a small, high speed, unmanned aerial vehicle fitted with cameras to provide photographic coverage by day or night of predetermined strips of ground. The system will be employed to provide timely target acquisition, reconnaissance and surveillance intelligence for commanders in the forward battle areas.

The drone system is uniquely Canadian, being conceived, designed and developed by Canadair Ltd of Montreal to meet the requirements for a simple, light-

weight and relatively low cost military intelligence gathering system.

In 1963 the British and Canadian governments agreed to collaborate on development of the drone system. The following year a series of test flights started at the US Army Proving Grounds in Yuma, Arizona. Interest in the Canadian designed drone increased and in 1965 Germany became a full partner with Britain and Canada in the development program.

The eight-foot, 200 pound missile-shaped vehicle is launched by a booster rocket and sustained in flight by a turbojet engine. On completion of a mission it returns to a predetermined recovery area; the parachute is deployed, the drone landed and the sensor package removed. After check-out and, if necessary, repair the drone is available for another mission.

Twin 70mm cameras mounted in the belly of the drone provide the photographic coverage. Illumination for night photography is provided by flares carried within the vehicle. A unique feature of the drone is the capacity to develop the film taken over the target during its return to base so that the negative is ready for viewing almost immediately after the drone has landed.

A joint British Canadian trials team formed to support the drone program includes five officers and 29 men from the Canadian Army. The team, headed by Major W. Johnston, RCA, is currently carrying out service engineering trials. These will be followed by service user trials scheduled for the fall of 1967 at CFB Shilo, Manitoba, where the AN/USD 501 drone will be flown and the system tested under tactical conditions.

*The AN/USD 501 short-range reconnaissance drone could be called an airborne photo shop. In flight it develops the film taken of strips of ground so that they can be viewed shortly after the mission ends.*

*No throw-away package this. S/Sgt. F. H. Weeks will launch the drone for a flight through Yuma skies. At flight's end a parachute will deploy, the drone will be recovered, repaired, and re-flown.*







*Four inch-high British "soldiers of the line" advance along a snow-covered road alert and ready to deal with any threat to their progress.*

# MILITARY MINIATURES

*Solid as the Canadian dollar, though smaller in size, are the miniatures involved in a hobby that is growing in popularity with servicemen.*





A hobby that is close to their life's work keeps all ranks busy with magnifying glass and tiny paint brushes

It is not surprising that people in the forces should have an interest in military history and it follows that it is not unusual to find members of the three services who are enthusiastic collectors and producers of military miniatures.

The hobby is not new. Evidence of an early interest in it has been found in the Egyptian tombs. Some of the greatest military leaders in history gained their introduction to tactics through the medium of miniatures and their collections today form important exhibits in museums and art galleries abroad.

Collecting and painting military miniatures is a world-wide hobby and its followers come from every walk of life. In recent years there has been a marked upswing of interest and it has resulted in the formation of many societies and the publication of an increasing number of magazines, bulletins and newsletters, some of which are in Canada.

Some figures are made of lead or metal alloys, while of recent years plastic has gained acceptance. There are two fundamental types, the "Flats", which are two-dimensional and generally come from Germany, and the "Rounds", which are three-dimensional and are produced in a wide variety, principally in Europe and North America.

There are three popular sizes, each of which has its supporters and enthusiasts. The 20-mm. size is mostly used with war games; the 30-mm. size also appeals to war gamers, but has a considerable following amongst the collectors; the "standard" or 54-mm. size is the one that generally forms the greater part of collections and this is the size that permits the greatest scope to artistic talent.

The figures themselves cover almost every period of history from ancient

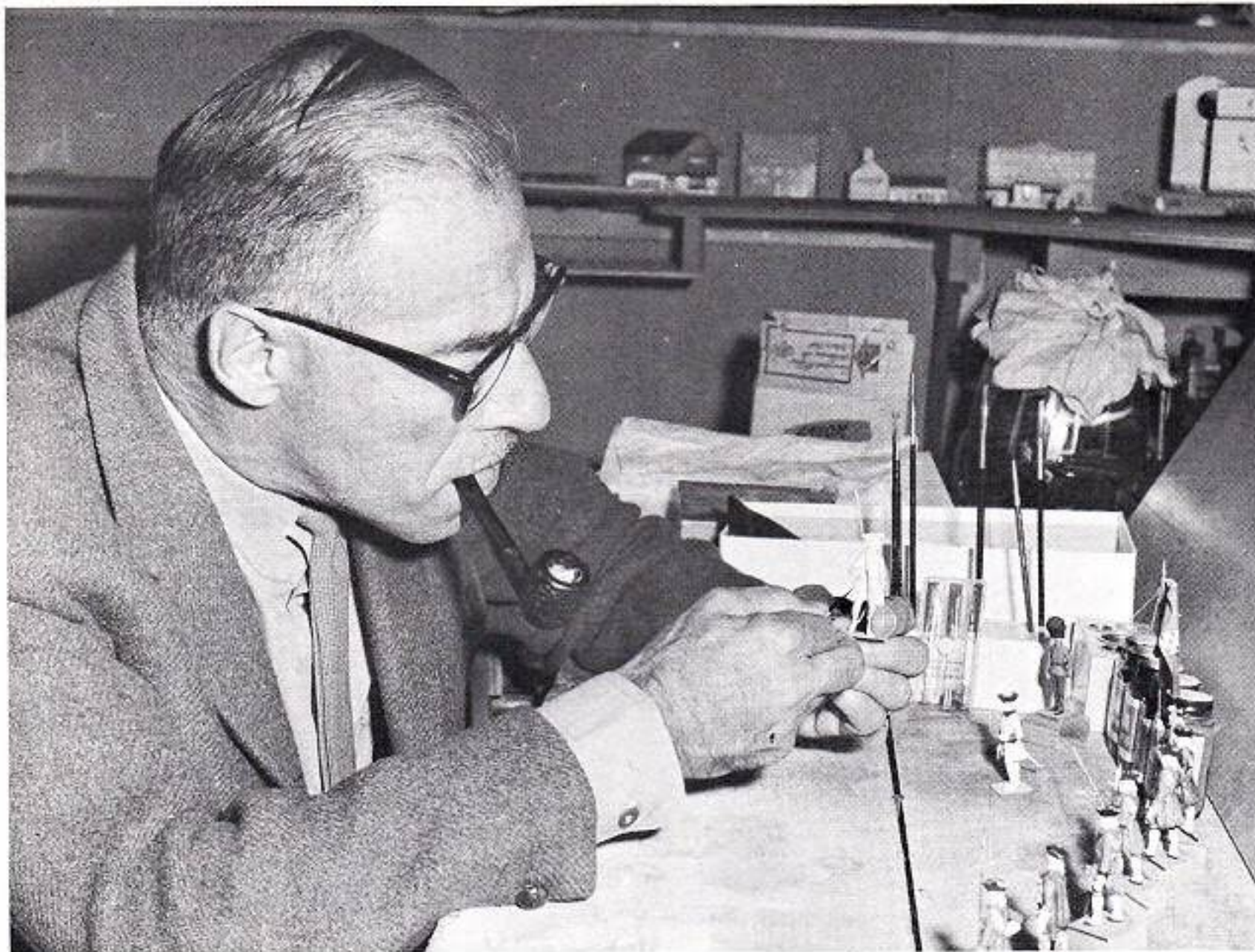


*Surrounded by the tools, paints and brushes of his absorbing hobby, Adm. C. L. Dillon (ret.) checks the detail of a miniature with a high-powered magnifying glass.*



*It's not Gulliver in Lilliput, but FS Frank A. Moran surveying some of the members of an army of miniatures collected and hand-painted because of interest in military history.*





*Maj-Gen. R. P. Rothschild, Commander, Materiel Command, starts out on the painstaking task of painting the figure of a soldier in the colours and detail of an historic uniform.*



*In his basement workshop Adm. C. L. Dillon sets up a battlefield before his collection of approximately 1,000 soldiers and 300 vehicles take to the field to depict an operation.*

times through to the present day. A popular period is the Napoleonic era when troops went into battle with colourful and elaborate uniform. The early history of Canada lends itself equally well as a period focus.

Probably the finest figures available today are made by Charles Stadden of London, England, and are distributed on a world-wide basis. These figures, when painted by artists, are in truth "*objects d'art*" and fetch a fancy price. The ordinary collector usually purchases his figures unpainted at a much more reasonable price and, after exhaustive research in the period and the detail of the uniform he is intending to depict, paints them himself. Many amateurs, in the course of time, achieve equal quality with the professionals.

Military miniatures find their place in war museums, regimental museums and officers' messes. They can be used to show the evolution of the dress and customs of a unit from its formation to the present day. Groups of figures, two or more, become dioramas to portray historical incidents. "Buffs" display their creations for their own satisfaction and to impress their friends.

The more sophisticated enthusiast may cast his own figures and while this raises a lot of other problems, modern techniques have made it relatively easy and inexpensive. Moulds may be made from a commercially-produced figure, or the collector may wish to sculpture his own. This requires broader talents than those required by the painter.

A surprising number of books have been written on military miniatures, many illustrated in full colour. These treat the subject exhaustively and offer many tips on achieving good, and sometimes spectacular results.

It would be interesting to know how many members of the Canadian Forces are engaged in this hobby, but it is known that there are collectors in every rank from private to major-general or their equivalents.

Collectors of "militaria" are by no means confined to figures. There are those whose interest lies in the scale of armoured fighting vehicles and other weapons. There is even a miniature AFV Collectors Association with headquarters in Canada and its own publication. There are others who collect arms of all types, items of uniform or badges and insignia.



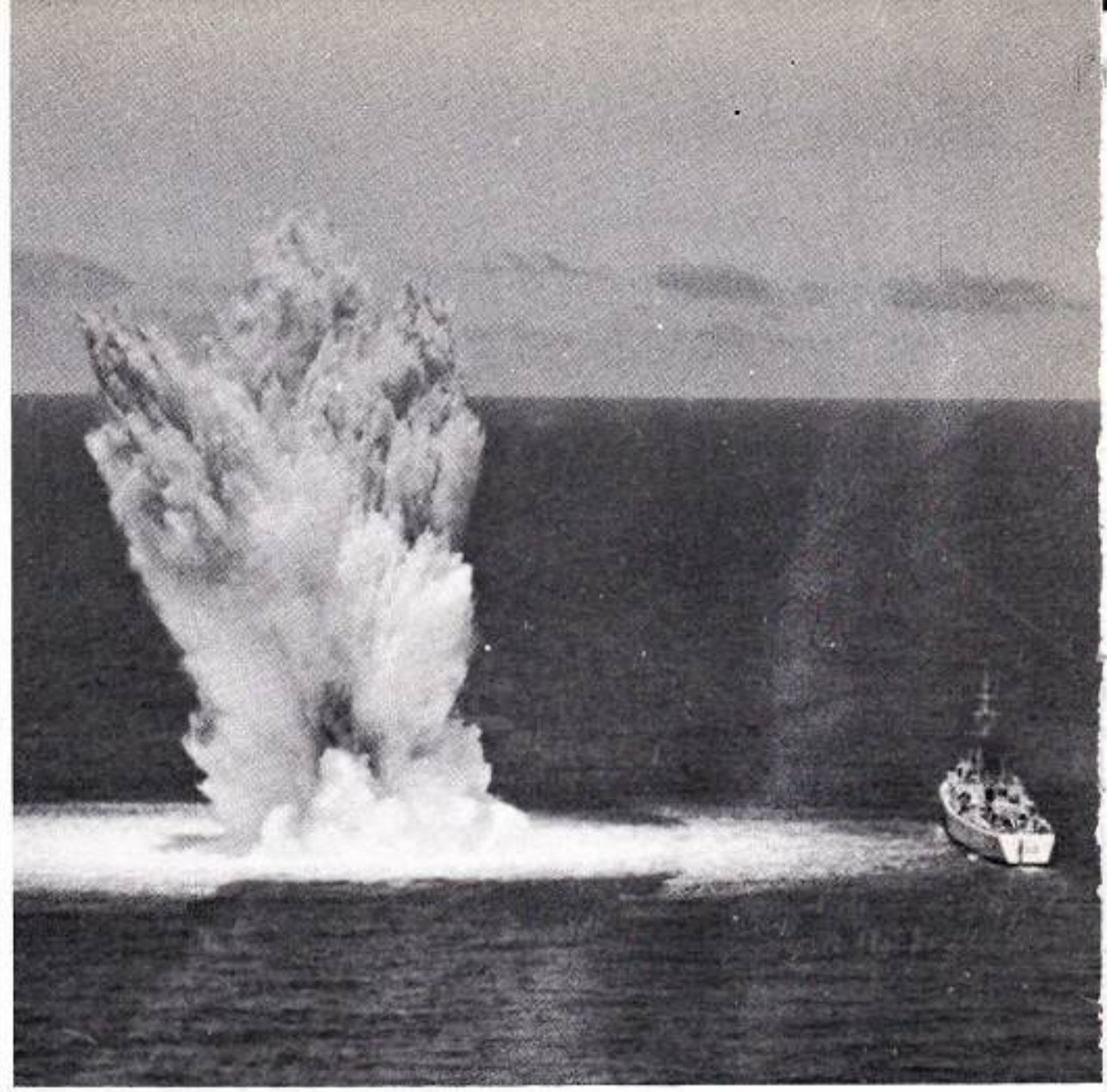
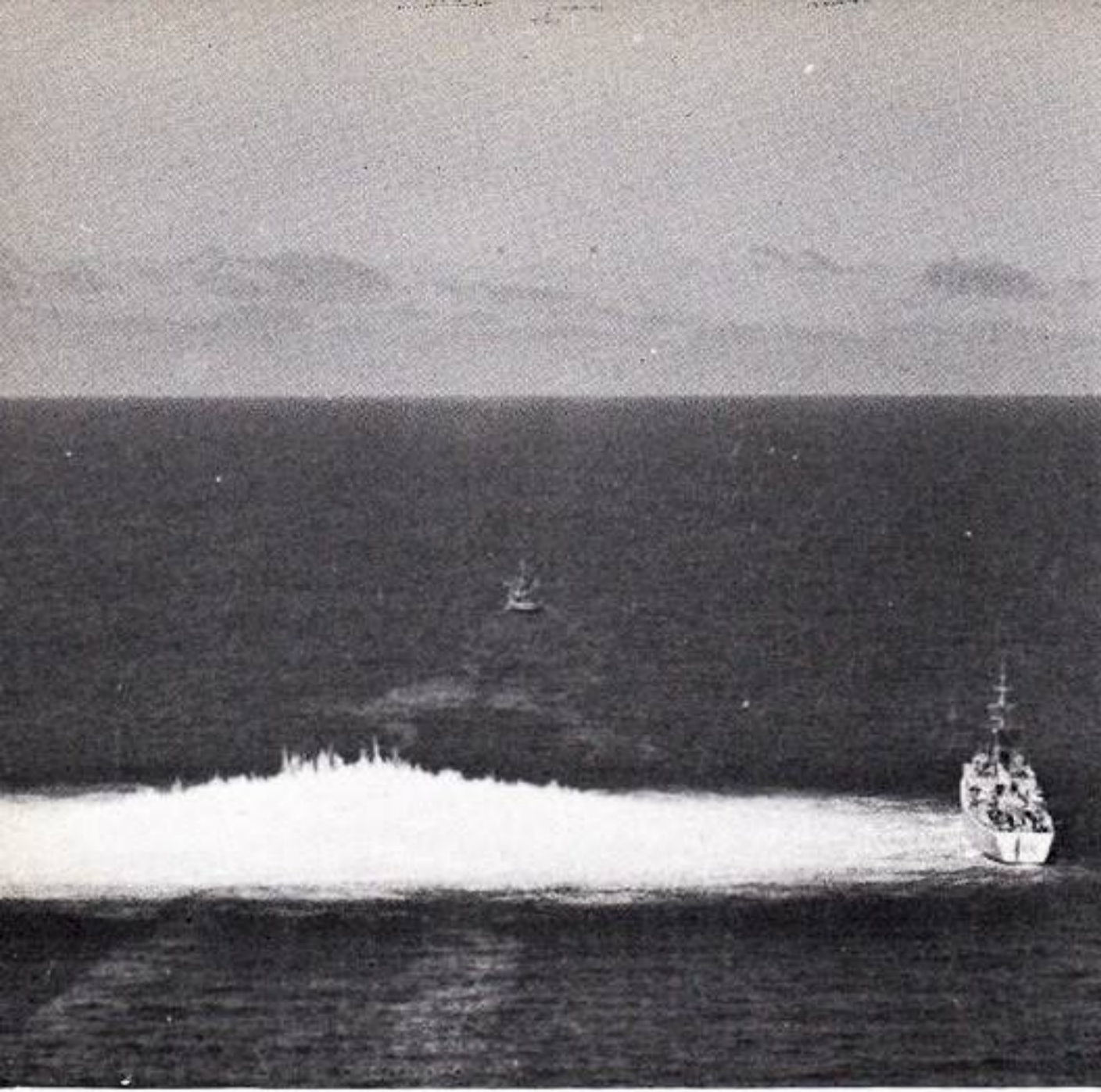


*Miniatures in the dress of various British regiments of the 1750 era illustrate the varied poses in which the models are cast, and also show the detail of the hobbyist's brushwork in applying the colours.*

*An amphibious task force launches a beach assault against a heavily defended position in one of the elaborate sets that Adm. C. L. Dillon uses when putting miniatures on display in his basement workshop.*







5-4-3-2-1-SHOOT! and the sea boils as thousands of pounds of high explosive erupt in close proximity to the trial ship HMCS St. Croix.

## Subjecting a Ship to

SHOCK

By Captain C. W. Ross

It was early morning on May 1966, HMCS *St. Croix* was cruising into the Pacific to make Canada's latest contribution to an art that is older than Canada itself. The art of testing ships against the effects of underwater explosions. She was to be subjected to the highest level of shock severity that any Canadian ship — in fact, any operational destroyer — had experienced in the past.

While the process of testing ships against underwater explosions dates back as far as 1860, this test was to be the most severe trial to date, and the latest effort in a long process of hardening our own fleet against shock.

Systematic testing was carried out by all the major powers even prior to the First World War, resulting in many changes in hull design. The First World War introduced torpedoes and floating mines which gave rise to many new problems. Between The First and Second World Wars, ships such as the *Midway*, *Hood*, *Tirpitz* and the *Bismark* were all subjected to underwater explosive testing. This resulted in many new steels and new structural arrangements.

The Second World War introduced the proximity fuze and attacks from the air. Students of Second World War history are well aware of the considerable damage done to equipments by the "near miss". Fortunately after the war all the





Soon the sea subsides leaving invaluable shock data on film and instruments for naval architects to use in the hardening of the Canadian fleet.

knowledge gained was correlated by US and British Naval authorities and published as a book by the Office of Naval Research of the US entitled "Underwater Explosions Research". Tests of underwater nuclear explosions were part of the well known operation "Cross Roads".

The RCN has always been concerned with shock, and, most of our equipment prior to its introduction in the Fleet undergoes some form of shock testing. During the late 1950s, it was realized that this testing of equipments was not good enough. It left untried a multitude of interconnections when the equipments were installed as a system in the ship. We proceeded with the first shock testing of RCN Ships in 1962 when HMCS *Chaudiere* and *Fundy* were subjected to underwater blasts off Key West, Florida. These tests were not of high enough severity for our designers to ensure that we could meet all goals. Hence, the further test in 1966 of HMCS *St. Croix*.

This is why, as we sailed from Long Beach, California on 3 May 1966, some of us were slightly apprehensive. On the bridge of the *St. Croix* stood Commander J. Hertzburg, Commanding Officer, Mr. Michael J. Kerns, senior civilian with the US Navy Bureau of Ships, and myself in the capacity of test director. We were in for a big bang.

This test was to be the combination of

a lot of work by a large number of RCN and USN Facilities. Commander Dockyard Pacific Coast (COMYARDPAC) had for several weeks been "hardening" the ship, that is, making it as resistant to shock as their knowledge would permit. The Hunters Point facility of the San Francisco Naval Shipyard had been working for some time on the instrumentation and making plans for all the facilities required to make the test a success. The VINOK, (Vibration, Noise and Shock) Group in CFHQ had been working hard with specifications and contractual action and overseeing the entire operation. The good offices of the USN Bureau of Ships were busy ensuring that all that was required would be available.

Tension in the ship was mounting as we approached the markers under which was suspended the equivalent of more than seven tons of TNT that was to be our companion for several milliseconds. The count-down began. Minus 60 minutes to firing. Minus 30 to firing. The ship was closed up at action stations and damage control state one. Safety hats and safety goggles had been issued and the ship's company had been briefed on all safety aspects and what to expect. The count-down continued. Minus 17 seconds. Minus three. Two. One. Command fire! There was a deathly silence. The firing circuit had failed to ignite the charge! Spirits dropped and the cry of

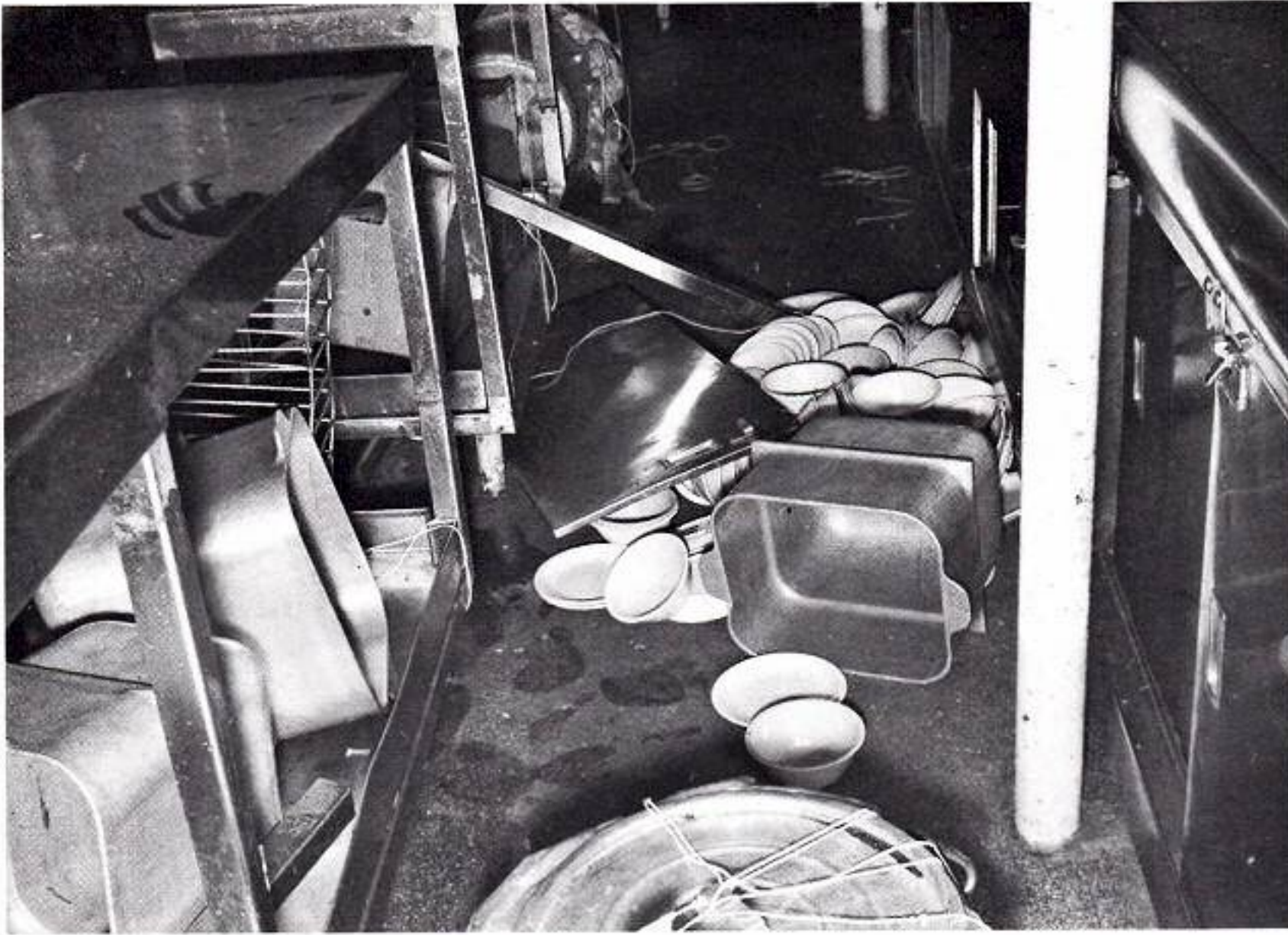
"back to the drawing boards" was heard.

The shot was rescheduled for the following day and the ship returned to Long Beach for the night. The next day the ship made its practice run at the target pontoon under which lay the big charge. Having satisfied himself that deployment was "a piece of cake" the CO put smartly about and headed for the real "count-down". Suddenly, that red flag on the pontoon holding the charge didn't look too good. It had been a thing to play with in the art of navigation. But this time everybody knew it was going to bite and bite hard.

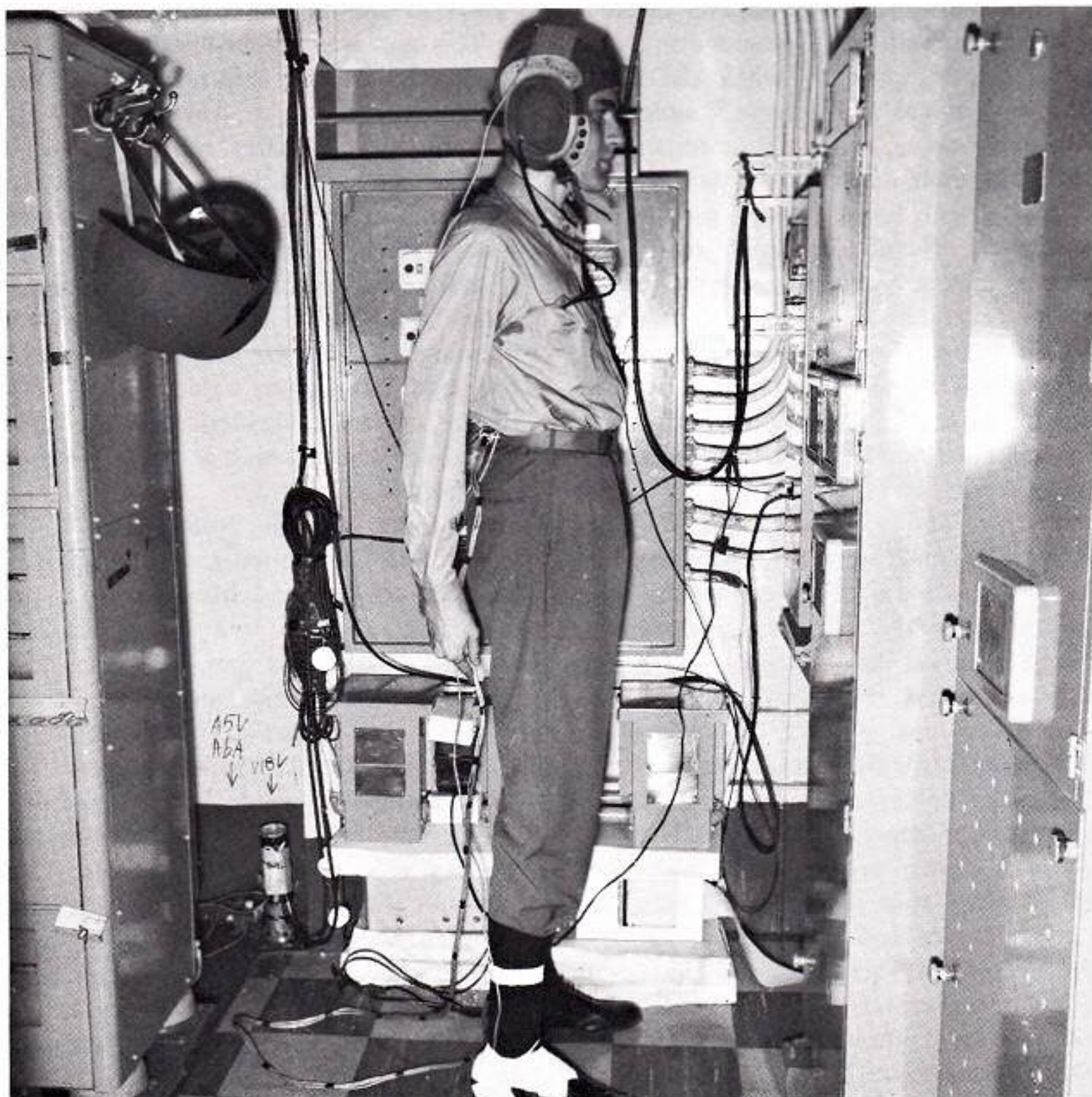
At three seconds from "shoot", the engine and boiler rooms were evacuated, helmets, goggles and life preservers put on and every man jack spread his feet and mounted on his toes. The crash that followed seemed enormous. The stream of water following the crash looked like a tidal wave. "All hands prepare for roll", somebody yelled. And roll she did.

After the first shot, the ship recovered fighting efficiency in 30 minutes. This first shot was at a higher level than those experienced in Key West, Florida days. At the same level *Chaudiere* had been "hors de combat" for 11 hours at the Key West trial. This time, even the minor improvements we had made in *St. Croix* demonstrated increased efficiency with only 30 minutes loss of operational effectiveness.





*The galley of the St. Croix was far from ship-shape following the test explosions. Although the unbreakable dishes were lashed in position, shock waves scattered them in four directions. Dust appeared from nowhere and the loose paint was jarred from bulkheads and decks.*



*Lt. Byron M. Turner, from the Institute of Aviation Medicine, volunteered to take a flat footed stance during trials, and wired himself to gauge the effect of the explosions' shock on the human body. He found his ankles took most of it, with less effect in body.*

Damage was made good and we returned the following day for the second and final shot. This was to be the big bang, increasing our severity over the other shots by several percent. No man on board HMCS *St. Croix* that day will forget the experience. Though the previous shots had been exciting, this one was formidable. On the second shot the ship was rendered non-operational and could not become fully operational again without Dockyard assistance. The impact of the shock lifted men as much as 12 inches from the deck. Equipment fell from the bulkheads to the deck. Bulkheads themselves were distorted. The only personnel casualty, thanks to the excellent briefing and safety precautions, was a damaged thumb, when a clock fell from the bulkhead and hit a sailor on the hand.

After these shocks the ship's company went to work recording in minute detail every bit of damage that occurred. This information is now being assessed in Headquarters. The information will be used to ensure that Canadian destroyers will undoubtedly be the hardest ships afloat. But the ship's company of HMCS *St. Croix* can surely take pride in being the first of the hardest, class. They are the veterans who can stand in closer to underwater explosive than any other operational crew. And their ship is the prototype of the hardest fleet in the western world.

The entire experience, so far as I am concerned, was a unique combination of technological interest and sheer stimulation.

To the United States Navy, we owe the use of their explosive range, efficient operational deployment of the charge and the impressive coordination of instrumentation and records throughout the ship.

To our own "VINOK" team we owe a salute not only for their technological competence but also their uncanny accuracy in specifying requirements for hardening the ship. Our USN colleagues have already reviewed both ship and specification with a careful eye. After all, *St. Croix* was a "first" for them too. To those organizing safety precautions I tip my hat. Even that bruised thumb ended by pointing up. But to the ship's company of *St. Croix*, now in the vanguard of the battleworthy, I signal, for excellent damage control discipline and seamanship, a hearty "Well done".





# WIN, LOSE OR DRAW . . .

by Major Harry Chapman

Working on the old adage that "all work and no play makes Jack a dull boy", the 4th Canadian Infantry Brigade Group in West Germany provides a well rounded athletic program which keeps the troops from being anything but dull boys. In fact some are international champions.

Whether your taste is for the speed and action of a hockey game, the thrill of sport parachuting or the more sophisticated games of curling and golf — you name it — they have it.

Although the sporting program is primarily designed to provide spare time

recreation and foster inter-unit competition, the Canadian soldiers during a year compete with various European teams in both exhibition games and international tournament.

Win, lose, or draw — and the army lads hold several European trophies and British Army Championships — they promote the name of Canadians both as good athletes and good sportsmen.

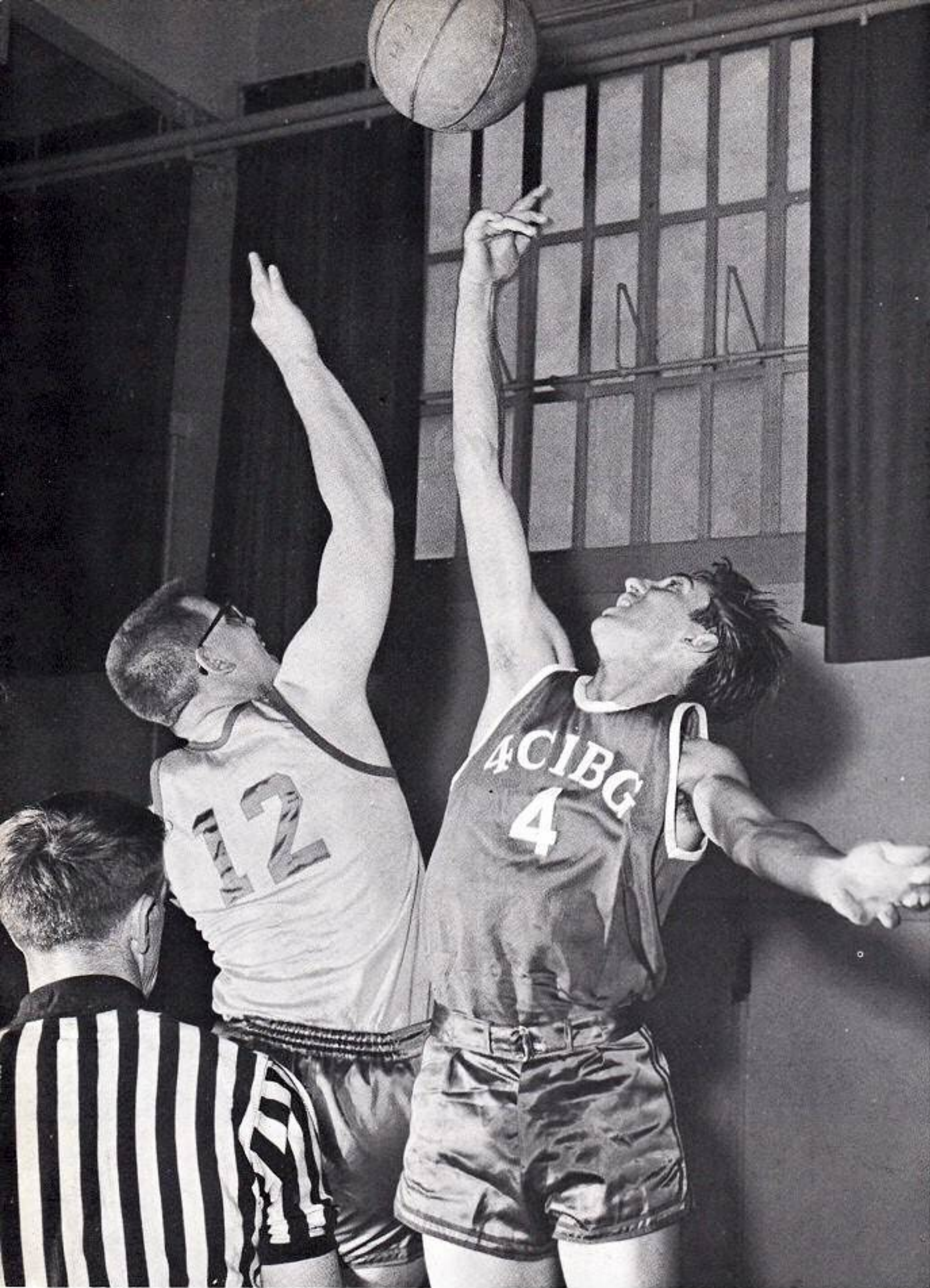
Within the nine brigade camps, there are: nine gymnasiums, four ice rinks, 14 soccer pitches, three football fields, 17 softball fields, 16 bowling alleys, eight

squash courts, 21 tennis courts, a trap and skeet field, and a nine hole golf course.

As with Canadians at home, ice hockey is high up on the popularity list. The Brigade has a seven team league, which plays a 132 game schedule annually — almost twice as many as the NHL. The games each week are broadcast over the Canadian Army Europe radio station.

Besides the regular season schedule, Army teams participate in numerous matches against Austrian, Belgian, German, and Dutch teams.





*Pte. Ken Mercs (right), team captain of the 4CIBG minor units basketball team extended this leap by taking his squad to a championship in British Army on the Rhine contests.*

The Saarland Hockey tournament this year featured five army teams and three German entries, with the Fort Chambly Huskies winning the trophy, a pewter beer barrel on a marble base.

Although Canadians are more at home on a hockey rink than they are on a soccer pitch, nevertheless Army teams pull on their studs to participate in various international matches. In addition to inter-unit competition, the soldiers have played matches against British Army teams, German Army teams, Dutch, and Belgian teams.

This year two teams took part in an international soccer tournament featuring entries from seven NATO countries. Although neither team won a game, the Princess Patricia's Canadian Light Infantry proved the point "It's not whether you win or lose but how you play the game" by winning the good sportsmanship award.

While there is very little international competition on the basketball scene, the army has two leagues operating within the Brigade and teams often compete against British Army teams.



*Down, down — and an Army sports parachutist lands at a target edge in Germany.*



*Brig. A. J. Tedlie, former commander, 4CIBG, got the 1966 curling season going.*

A team from 2 RCHA, after winning its brigade league, then went on to win the 2nd British Division Championship, British Army on the Rhine Championship, and the British Army Championship in England. A second team of Canadian army hoopsters, after winning its brigade league, also won the Division Championship and the British Army on the Rhine Championship.

For soldiers interested in the manly art of judo, the Canadian Brigade has a Judo Association with three active clubs which compete regularly against German



# WIN, LOSE, OR DRAW



*Hockey is naturally high on the list of sports, and 4CIBG (white) has seven teams.*



*Set faces and tense muscles await the call to "pull". Seconds later, with heels gouging the turf, this 2RCHA heavy tug of war team last year heaved home a Rhine championship.*

and Dutch clubs.

In competition against British Army units on the mats, Canadians have won the British Army on the Rhine Championships as well as British Army Championships.

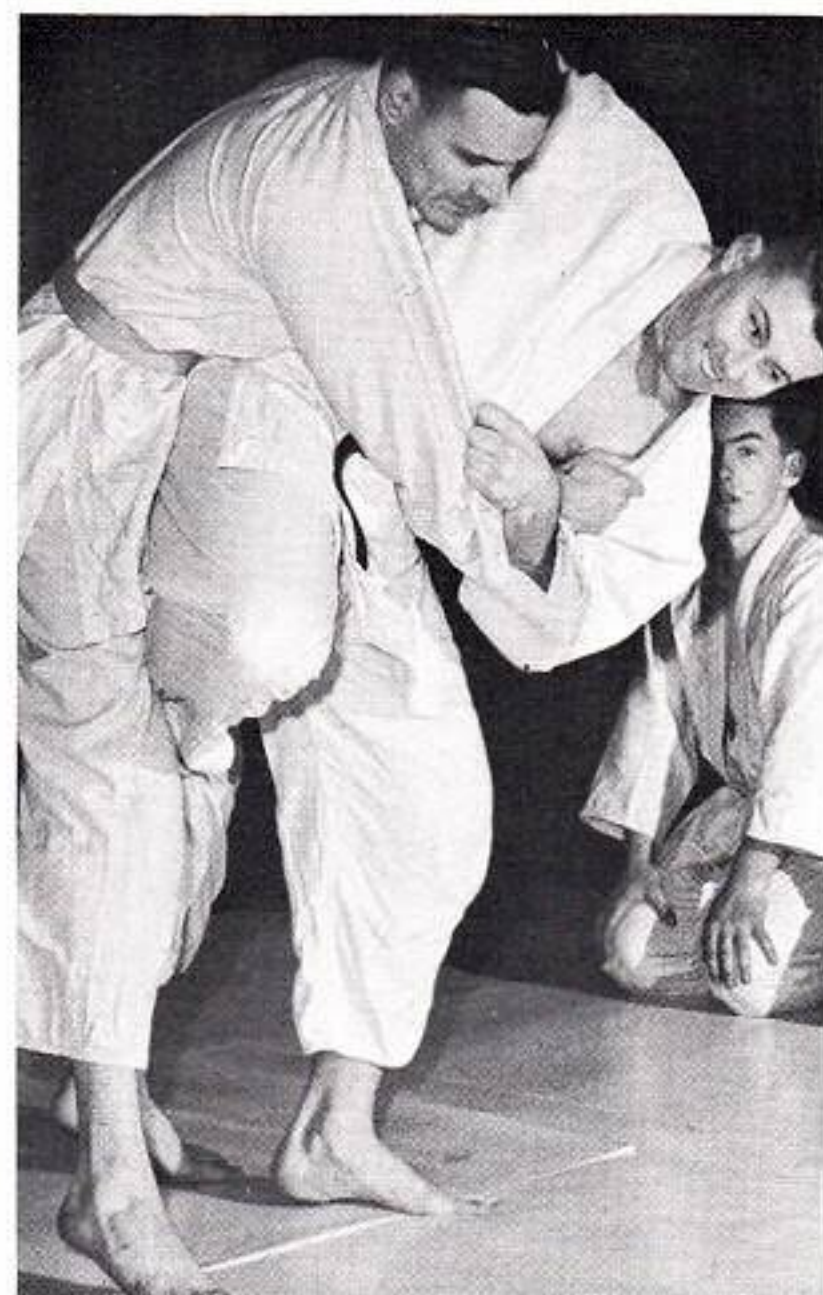
Skiing is always a popular winter pastime in Europe and at international meets on the snow swept mountains of Bavaria, the Canadian soldiers are among the competitors. While the soldiers have yet to win a competition they do place fairly high on the winner's list.

With four ice rinks located within the

brigade area, there is a considerable amount of curling activity during the winter months. During the season, army rinks participate in bonspiels against Swiss, German, and British Army teams.

Other sporting activity, which provides the soldier with an opportunity for international competition include: sky diving, car rallying, cross country running, and tug of war competitions. A tug of war team from 2RCHA last year captured the British Army on the Rhine championship.

Captain E. W. Thoms, staff officer

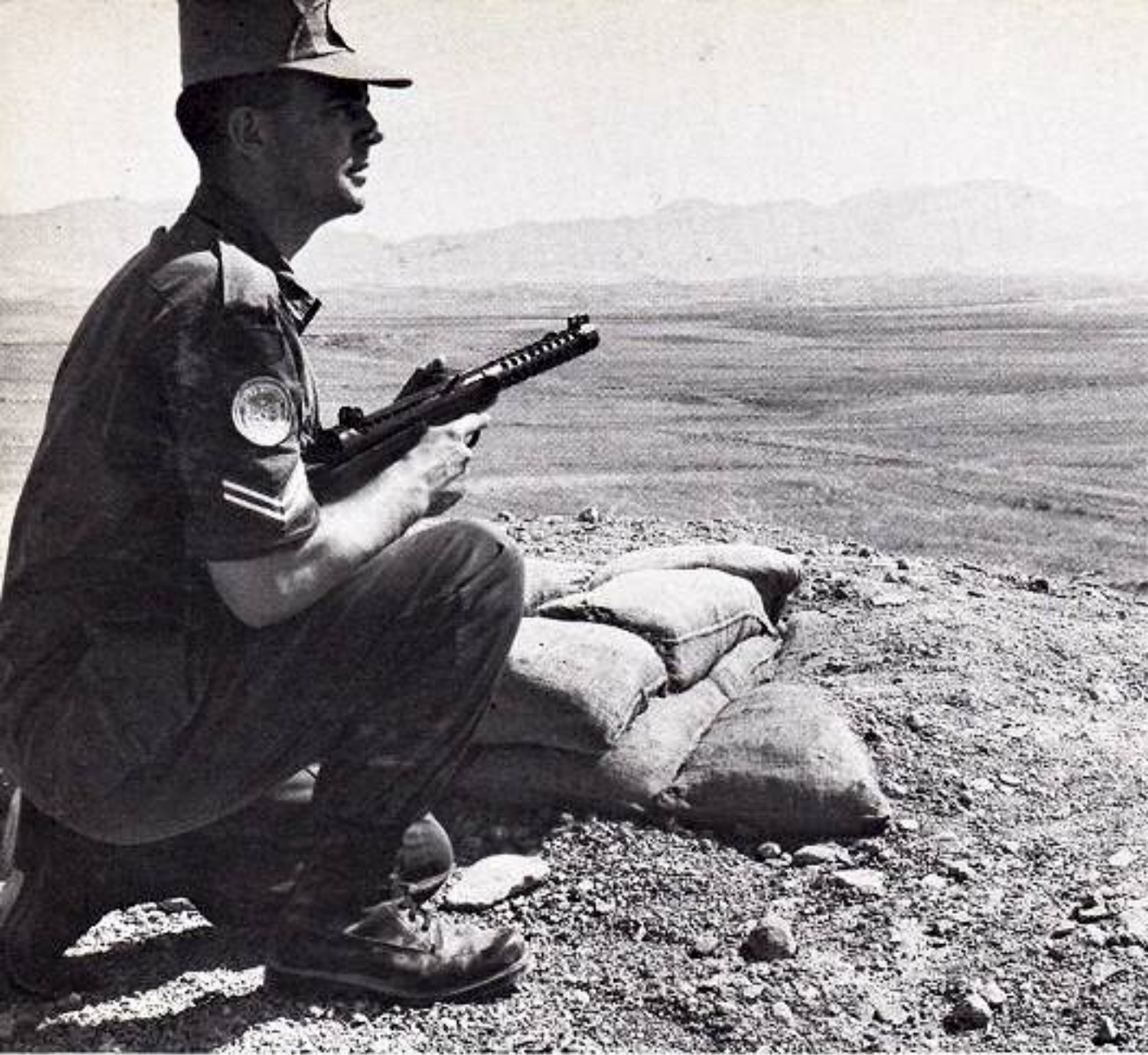


*Three judo clubs flourish in 4CIBG and meet regularly with Dutch and German clubs.*

physical training, is the man largely responsible for the well balanced athletic program for the troops in Germany. He is charged with organizing the overall physical fitness program for the brigade, organizing and scheduling leagues and dispatching teams to other areas for competition.

Captain Thoms said he was extremely pleased with the troops' effort in international competition. "Wherever they go they are well received by the Europeans for their athletic ability as well as their good sportsmanship." ❁





*For Corporal McLean the dawn begins a new day which may pass in peaceful vigilance or be shattered by odd shots from either side.*

*But whatever happens during the period it must be reported to headquarters. "All's quiet" is the favourite report to the command post.*

# THE EYES AND EARS OF THE UN IN CYPRUS

by S/L R. Turner

The sun was just over the Mediterranean horizon and he was squinting into the glare when he said "our job is to be human radars".

Speaking was a 28-year-old corporal section commander from Halifax, Nova Scotia.

Duncan McLean and the five soldiers in his section man a United Nations outpost that separates Turk and Greek Cypriots from each other. They had spent the night looking and listening for activity on either side and when something suspicious was detected a patrol would slip out to investigate.

Daylight wouldn't change their duties. The job goes on 'round-the-clock as it has every day since Canadian troops arrived in Cyprus on peacekeeping duties

in March, 1964.

Corporal McLean's outpost is called Hanley's Hill and is about five miles west of the Cypriot capital of Nicosia. Called an OP in soldier language, it's one of 16 posts manned by Canadians. The blue berets and red Canada shoulder flashes can be seen from Nicosia to hill-tops 15 miles north in the Kyrenia mountains, many of which are only accessible by foot or helicopter.

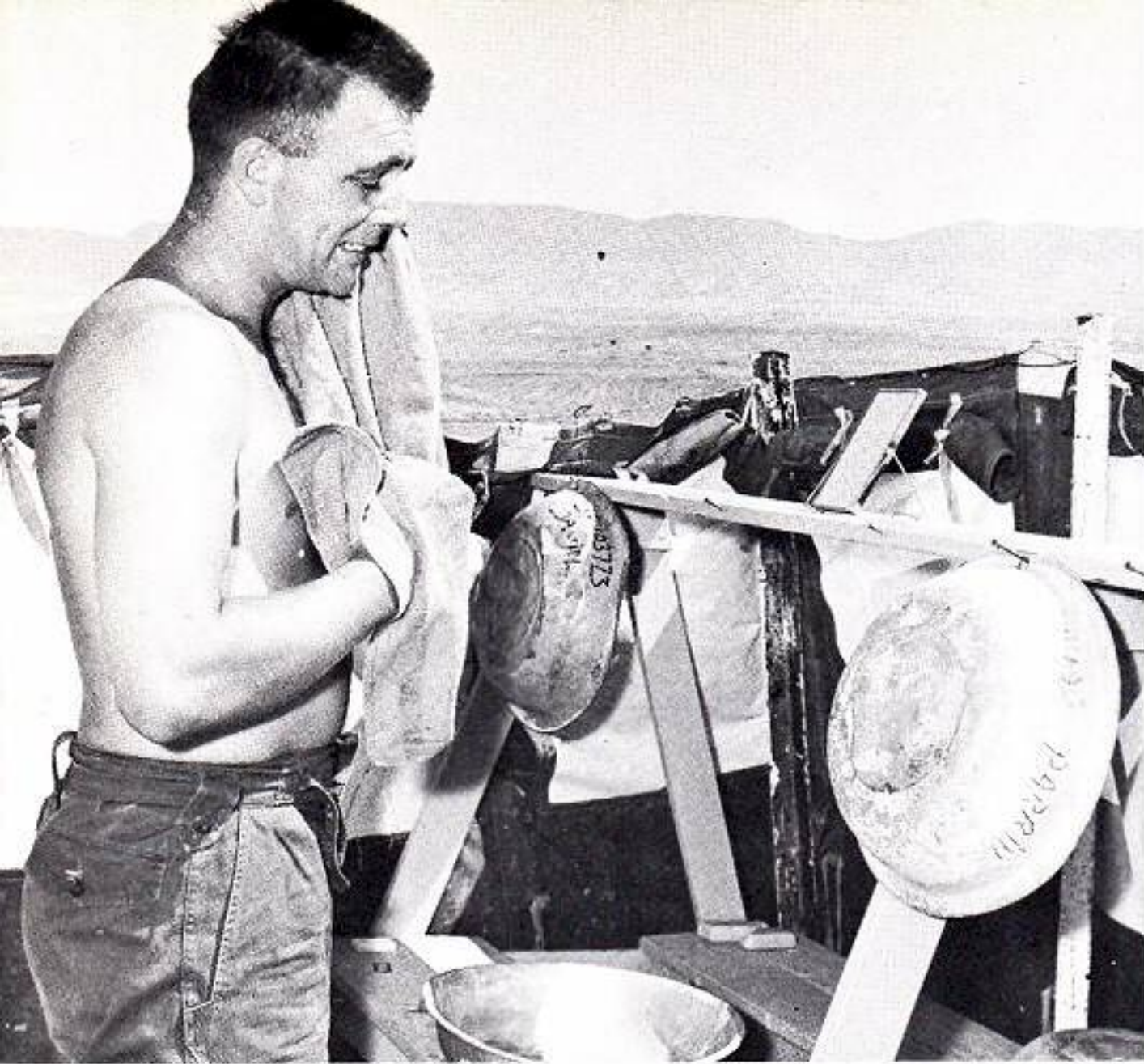
A few city blocks away from the Canadian Contingent Headquarters in Nicosia is a Finnish OP on top of an abandoned flour mill and, within sight of it,

is a Danish OP. And so they fan out throughout the 3,572 square miles of Cyprus until they link up with the British, Swedish and Irish Contingents. Each of the six Nations has a segment of the Island as its peacekeeping mission.

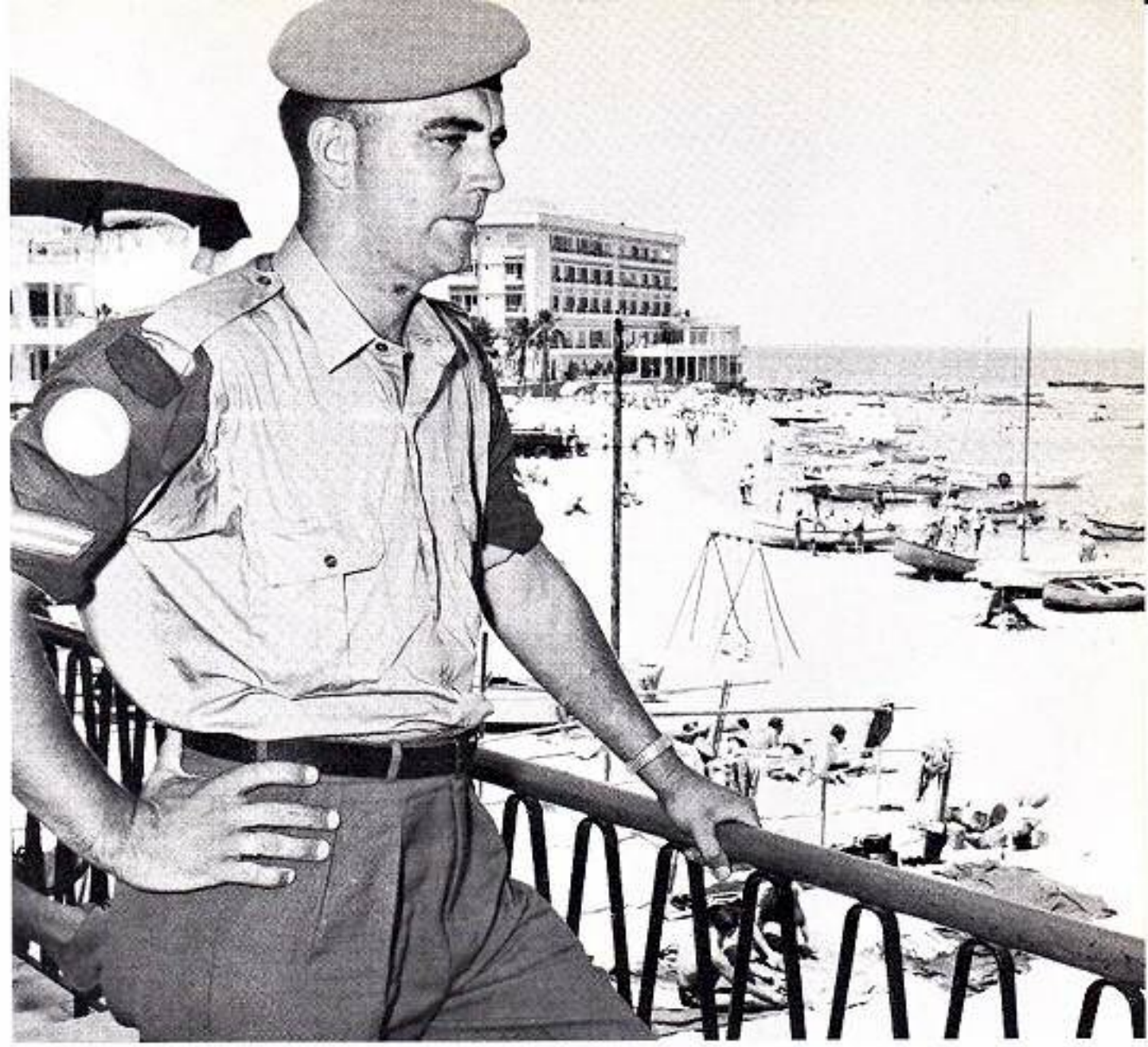
Tanned, and now a veteran of United Nations duty, Corporal McLean will finish his six month tour of duty with the 2nd Battalion of the Black Watch in October when the 1st Battalion of the Royal Canadian Regiment arrives.

While the patrols are demanding, Cyprus does have its own compensations. When he has a day off, Corporal McLean, who is single, can often be seen on one of the Island's many beaches — taking a pretty girl for a ride in a bicycle boat, or just soaking up the sun. ☼





*Washing facilities are air conditioned in the field, but Cpl. McLean has no complaints about conditions when he is sprucing up for leave.*



*While the island is rich in history and a mecca for tourists and camera fans, McLean has chosen one of the many beaches for a rest.*

*Soaking up the sun with good company is fair reward for weeks at an OP, particularly when one's companion is prepared to share the work.*







*Walter Ott adjusts the reducing machine. A white acrylic model of the CD is beside him, and at the lower left is an intermediate reduction.*

# WHO MAKES YOUR MEDALS?

by S/L K. G. Roberts

Next time you take out your medals for a ceremonial parade, handle them with care; they're works of art.

From the time the design for a medal is conceived, until the finished product is wrapped in tissue paper and put into its box, the medals for the Canadian Forces are in the hands of artists, artisans and master craftsmen.

In the crowded workshops of the Royal Canadian Mint, your medals are given all the love and care of a newly-born baby. Men like Myron Cook, the Chief Engraver, with 19 years experience, pour hours of meticulous work into the fabrication of each one, and the pride of the craftsmen is the only quality control that is required to ensure that each medal is a masterpiece.

The birth of a new decoration is a long, laborious process. Roughly, it can be broken down into three phases — design, approval and production. The design for

a decoration may come from a variety of sources: open or closed competition, from a member of the Mint staff or, in the case of a DND-sponsored medal, from the drawing board of a Service graphic artist. Whatever its origin, the design is given very careful screening for its aesthetic merit, its heraldic accuracy, and for its ease of production.

Once past this stage, it is passed to the Committee for Honours and Awards, which is chaired by the Undersecretary of State, and includes representatives of the Governor-General, External Affairs, the RCMP, the Transport and Labour Department, the Dominion Archivist and National Librarian, and the Department of National Defence. When the Committee has approved the design, it is sent to the Cabinet for further approval, and finally to the Governor-General for onward transmission to Her Majesty the Queen for Royal approval.

When this has been given, the Master of the Mint can get cracking. Normally the Mint expects the artists to sculpt a bas relief model of his approved design, and in this task the Mint may give him considerable advice and assistance to avoid technical errors that might result in production problems. When the artist's plasticine or plaster model is complete, the staff of the Mint takes over.

First, in the engraving department, they make a plaster concave (intaglio) mould from the artist's sculpture. Into this they pour an acrylic mixture (the same used by dentists for dentures) which gives them a cameo cast which they call their working model. This hard and accurate model — about eight inches in diameter — is given a few finishing touches by hand, such as leveling off the lettering around the edge which might have been cut to an uneven depth in the plaster mould.



The cameo model is then put on the reducing machine which cuts a perfect reproduction of it in the size ultimately required. On the machine, a rounded carboid point moves over the surface of the big cameo model, rising and falling with the contours of the sculpture and transferring them mechanically to a tool which cuts a perfect replica of the original into a steel blank. This operation alone takes about 28 hours for the first rough cut and another 40 hours for the fine cut which brings out the detail. The resulting steel reproduction is called the "reduction", and considerable work may still have to be done on it by hand, such as cleaning and polishing under intense magnification.

After a hardening process, the reduction is then put into a hydraulic press under a pressure of 150-250 tons to drive it into another steel blank. After repeating this punching process four or five times, with lengthy softening routine in between each punch, the craftsman has a negative die or matrix in his hands. Again, he gets down to the handwork such as turning it on a lathe, or milling it, and polishing to ensure a perfect finish.

Back goes the matrix to the hydraulic press where it is punched into yet another steel blank with all the detail of the final medal. This is the working punch. From it working dies are made for the actual production of the medals. Each die will stand up to about 300,000 impressions.

At this stage of production the working die is passed from the engraving department to the Medal Branch of the Mint. For instance, not so long ago the design of the Canadian Forces Decoration was changed slightly. When the new working die had been made, it was given to Mr. D. C. Green who is in charge of medal production. He has a very special feeling for the Forces, having been a Chief Petty Officer with the RCN during the Second World War, sunk in HMCS *Jervis Bay* by the *Scharnhorst* in 1940, and served more sea time before being invalided out of the Navy in 1946. Under his supervision, meticulous care is lavished on each CD even though there are dozens of steps in the production process.

First he cuts blanks out of sheets of Tombac, an alloy composed of 88% copper and 12% zinc, and the burr around

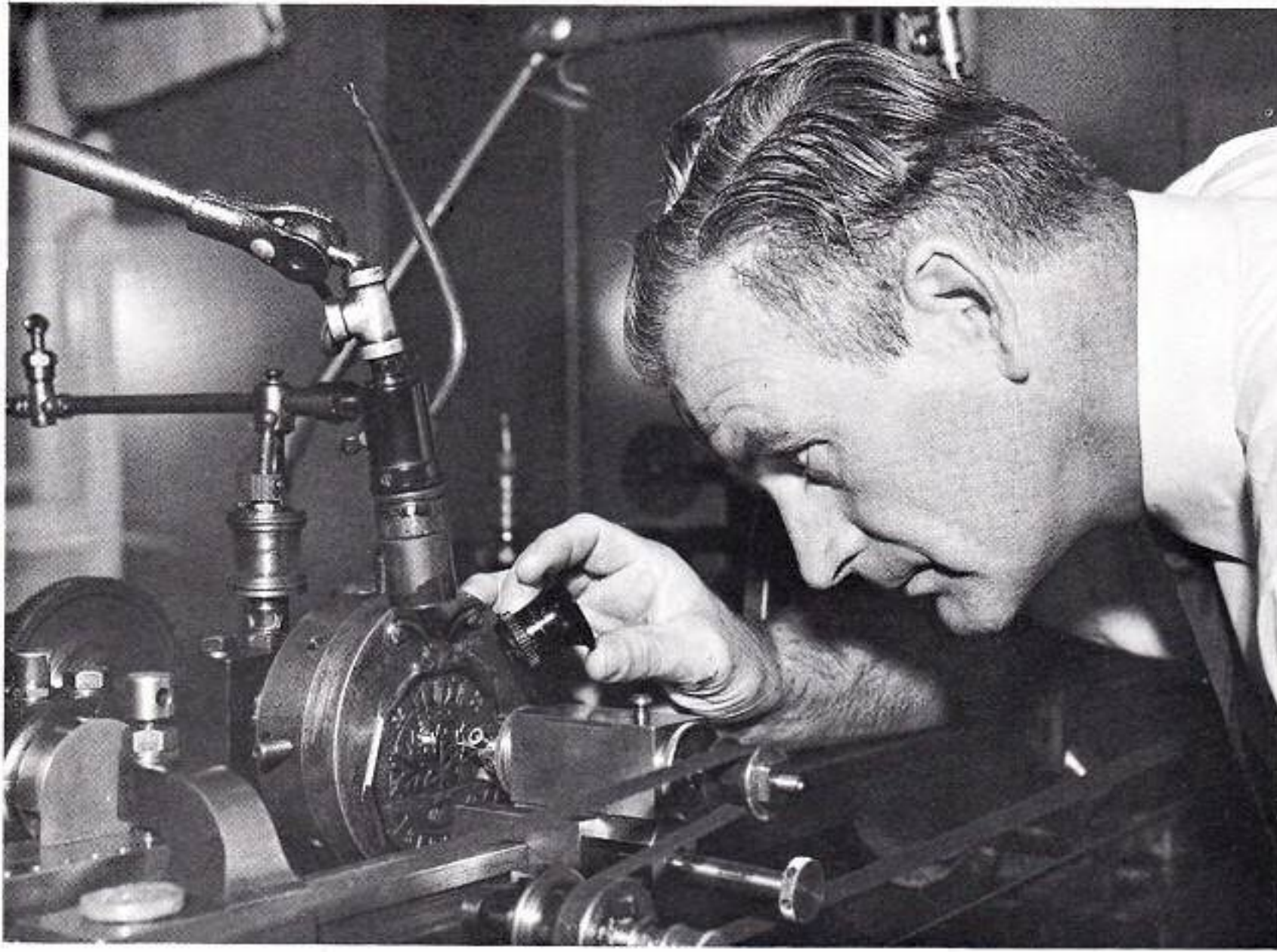
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*Engraver Ago Aarand cleans and polishes the intermediate reduction of the CD. It will be reduced again in a medal-making process.*

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*Walter Ott, deputy to the chief engraver, coaxes absolute accuracy from the reducing machine, even warming it up before use to allow for metal expansion of the mechanical linkage.*



*D. C. Green sets up to take an impression under 125-250 tons of hydraulic pressure.*



*It takes twelve 255-ton blows of this big drop hammer in order to strike a single CD.*



*D. C. Green lavishes skill on the task of hand-polishing a CD clasp on a wheel.*



*Fine files are put to use in expert hands to ensure that every medal is a work of art.*

the edge is removed by hand. Before the first blow the blanks are annealed at 1200°F for 25 minutes to soften them. Then the centres of them are punched under a 285-ton drop hammer with a special die to raise the "flat" or rim of the medal. Again, the blank is annealed.

Next the actual medal die is put into the drop hammer and the blank is hammered into it with three blows of 285-tons, again annealed, given three more blows, annealed, three more blows, annealed, and then given a thorough cleaning before the final three blows.

From this stage onward, the medals are really pampered. They are fed individually by hand into a special press which cuts out the hole for the ribbon, and then into a cutting machine which trims the excess metal from the edges. Each medal is then hand polished on a buffing wheel and, in the areas that the buffer can't reach, is filed by hand. This requires up to four different files to reach the various surfaces. The final product is as close to perfect as they can make it.

"This is far from being a profitable operation," said Mr. N. A. Parker, the Master of the Mint. "But it is valuable to us in another way."

"In Canada," he explained, "we change the designs of our coinage so rarely that our engravers get very little practice and experience from the design of new money. But the variety of work provided by both civilian and military medals is a constant challenge for them, so that when their talents are required for the design of new coins — like the new set for 1967 — we have the finest talent available. Of course, your men in the Canadian Forces benefit in the form of very fine medals."

With so many of the men in the Canadian Forces reaching the required 12 years for the Canadian Forces Decoration, the production of medals continues unabated. Last year, 10,500 CDs were ordered from the Mint, and about 16,000 more have been ordered in 1966. But they are also still producing medals for wartime service, with orders for 700 1939-45 Stars last year and 650 more this year. In addition, Mr. Green is busily making bars for the CD for those who have reached 22 years service.

But even with quantity production like this, the hand crafting goes on and the quality remains high. So next time you have your medals out, have a good look at them. They deserve it.



# TWO BUSY SHIPS

At the end of the training season in late October, the ships are secured alongside in Hamilton for the winter, and the busy program of maintenance and preparation for the next training season is begun.

A prime objective of the Royal Canadian Naval Reserve training program is to provide personnel for increased support of the regular force in time of emergency. However, another less well-known task that will fall to the reserve under such conditions is the complete maintenance and operation of auxiliary vessels in coastal waters and on the Great Lakes.

These small vessels often perform the unglamorous and humdrum tasks that are nevertheless vital to the operation of a fleet. By manning them with reserve personnel, permanent force officers and men can be released to aid in the vital job of manning the ships and establishments of the regular navy. To prepare for these requirements the Great Lakes Training Centre in Hamilton, Ontario, operates the Reserve Training Squadron.

The two gate vessels (YMG), HMCS *Porte St. Jean* and HMCS *Porte St. Louis*, are perhaps the busiest ships in the Navy during the summer months. They begin the training season shortly after Easter, and continue operations until

*Practice at rigging a jackstay is had by running the lines from bridge to forecastle.*

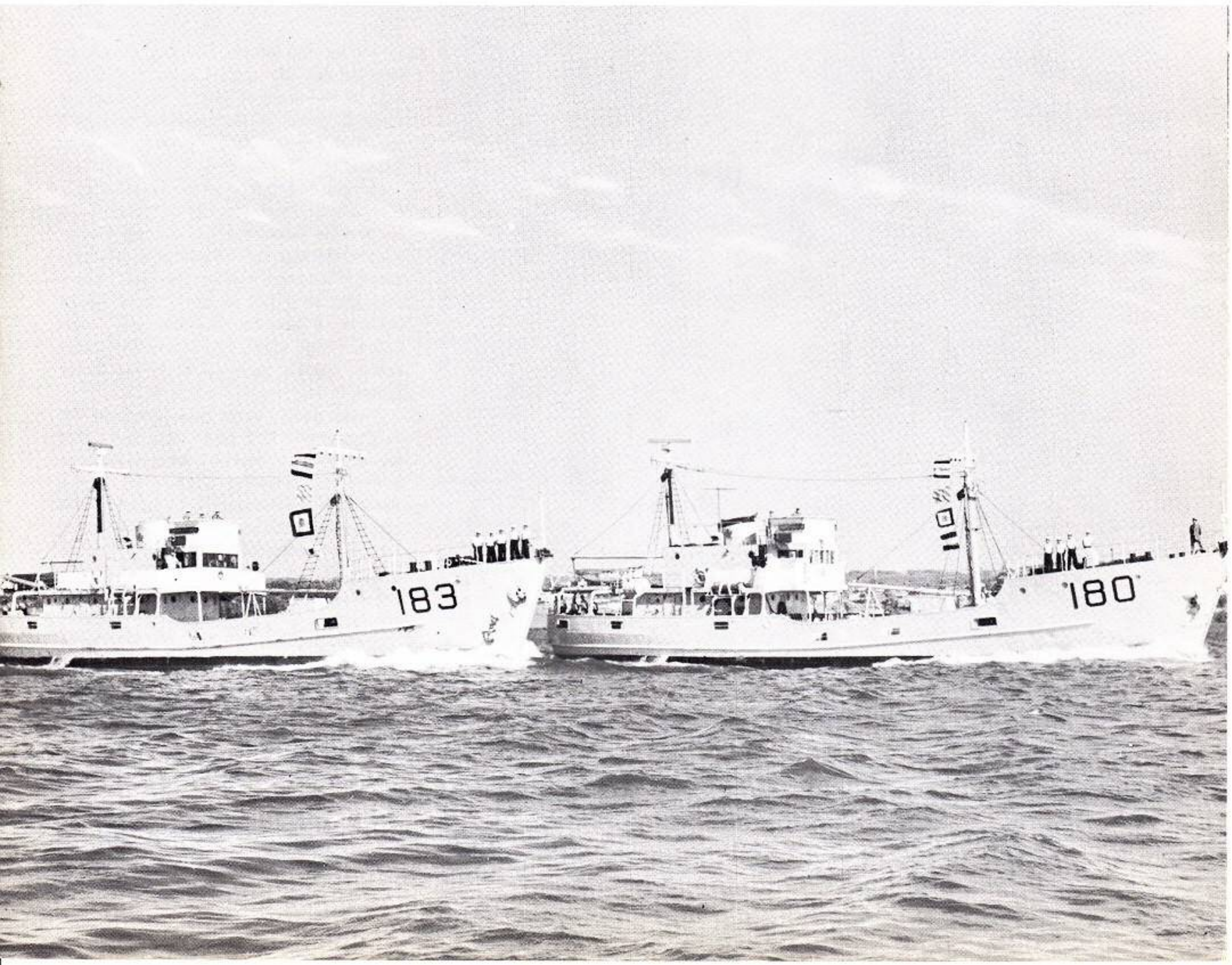




*Some of the hours spent on the bridge during duty-watch are applied toward getting a thorough knowledge of ship pilotage and navigation.*

*Communications afloat are as vital as communications ashore, as the RCNR trainees soon learn during the crowded hours of training.*

*HMCS Porte St. Louis (left) and HMCS Porte St. Jean cleave through the waters of Hamilton harbour outward bound for another cruise.*





freeze-up each year.

These "little ships", as they are affectionately known, are manned entirely by RCNR personnel, assisted by a minimum RCN engine room and galley staff. A squadron commander, usually a senior reserve officer, is appointed to supervise the overall operation of the training program. Reserve officers command and navigate the vessels and are entirely responsible for their operation, safety and maintenance.

This year the "little ships" trained 120 University Naval Training Division cadets, and more than 150 seamen. They have travelled approximately 10,000 miles in two-week cruises ranging from Halifax, N.S. to Lake Superior.

The ships have a "permanent" crew of trained reserve seamen who are assigned to the ships for the season, while "trainees" are given two-week training cruises on the lakes. Both basic and advanced training are offered, and the ships are equipped to train personnel in any evolution that might be required of a larger ship in the regular fleet.

The shipboard training program is designed to encompass all normal and emergency procedures, adaptable to any type of ship. Jack-stay transfers, fuel or liquid transfers, damage control exercises, fire-fighting, kedging, mooring, and many other operations are routine for the busy days of training. Emphasis is placed on the necessity of training men and officers as members of a ship's company, with the ability to understand and carry out the basic operations aboard any ship they might be sent to.

Facilities are crowded on the gate vessels, which carry an average of 30 trainees in addition to their permanent crews of about 20 officers and men, but a tremendous spirit and enthusiasm develops very rapidly with every new group of "green" hands. All of them soon learn to adapt to the close living conditions aboard ship, which is perhaps the most important aspect of their training. Very few comforts of home are provided, but despite this, most of the trainees volunteer for further duty as part of the ship's company at their end of their training cruise. Having passed their initiation, the sailors are anxious to put their newly acquired skills and training to work as real seamen. There is even some competition among them for the privilege of slinging an old fashioned "mick" in the forward mess.

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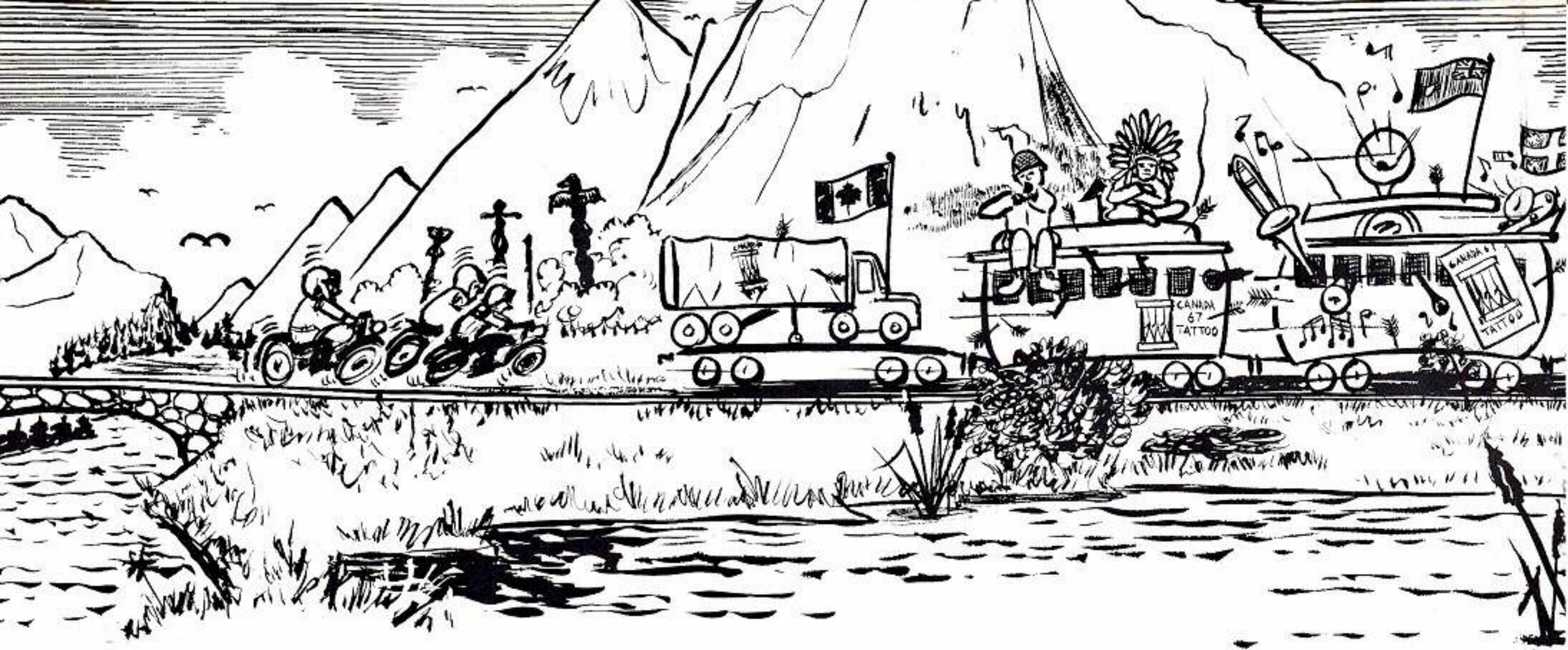


*The transfer of men from one ship to another, while cruising, will begin when rigging a jackstay is mastered during practice sessions on the forecables of the two gate vessels.*

*Raising a boom with a kedge anchor attached to it puts plenty of strain onto the muscles as these two UNTD cadets are finding out during a loaded moment in the training afloat.*







# DESIGNING A MOBILE CFB

by F/L T. G. Coughlin

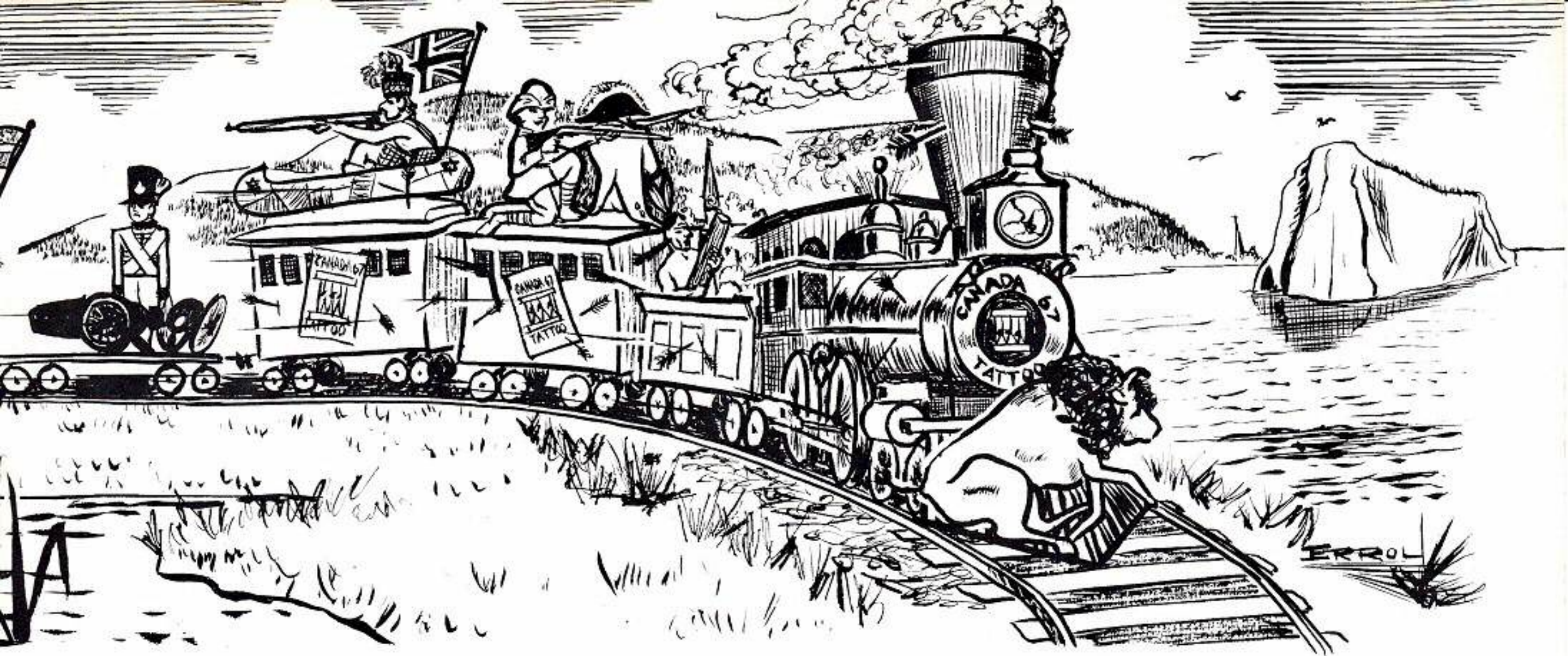
## Plans for the Tattoo train

For many people, a train is merely a device which can take them from one place to another. But next year, for some 700 servicemen, a train will be a self-contained and mobile city where they will live, work and rest as they criss-cross Canada with the Canadian Armed Forces contribution to Centennial: The Tattoo.

The train, actually two trains, the red (CPR) and the blue (CNR), posed a host of formidable problems in logistics and administration. For one thing, they will be the longest passenger trains ever assembled in Canada. And, most important of all, they will have to be home, workshop and community centre for several hundred personnel for a six-week period.

To find answers to the maze of interlocking problems posed by the Tattoo trains, members of the Armed Forces and railway personnel began consultations two years ago. Tentative plans for the length of the train were drawn up, but since the producer of the Tattoo, Major I. S. Fraser, was attending Staff College in India at the time, final decision on the length of the train had to wait his return to Canada. In the meantime, Captain





## sound like a mixture of a Mississippi showboat and D Day minus one

E. A. McLellan, the transportation officer on the CFHQ Centennial Staff, had a multitude of complicated questions to occupy his time.

The first major item to be dealt with was how to weave together CN and CP regular schedules with the Tattoo trains' schedules so that neither civilian nor military traffic would be interfered with. It was easy to state the requirement but difficult to achieve the aim. But when centennial year begins and the red and blue trains start to roll, there will be some 10,000 miles of clear track in front of them. Another perplexing problem is caused by the extreme length of the train. Twenty coaches plus six flat cars create a difficult parking problem, particularly when the military asked that the train be divided into several sections to form a compact unit at each stop. In fact this arrangement will not be possible at all times and in some communities such as Sydney, N.S. and North Bay, Ontario, where parallel tracks are in short supply, the trains will have to be strung out as one long unit.

There were other parking area problems to be considered. One was the ques-

tion of noise. Since personnel on the train will be performing at night they will require a quiet spot where they can sleep during the daytime. But, unfortunately, railway yards are notorious for their noise. Between shunting engines and the crash of coupling cars, the area is usually bedlam and hardly conducive to sleep. However, the train will have to be serviced at each stop and if parked some distance out of town to get peace and tranquility, it would be far removed from servicing facilities. As a result of these differing requirements every community along the Tattoo route had to be visited by a combined railway/military team to find locations which were acceptable compromises between servicing requirements and the need for restful silence.

The fact that the Tattoo trains will be parked for comparatively long periods also introduced unique complications. Normally, when a train stops, its batteries provide all necessary light, heat and power but this arrangement would not begin to satisfy the Tattoo trains' requirements. So special arrangements had to be made. The CNR's answer to this problem will be a special generator car in the

centre of the train to re-charge the train's batteries, while the CPR will achieve the same results by using a number of small portable generators set up beside each of the coaches and dining cars.

One major modification to the Tattoo train would have provided onboard shower facilities but studies showed that this proposal was impractical. Nevertheless, the requirement existed. Fortunately the army has considerable experience in providing mobile showers during field exercises so it was decided to use the army's time-tested system.

One element which could not be adjusted to suit anyone's convenience was the matter of time. Time will be critical. To present the tattoo in as many communities as possible the minimum amount of time is allowed to unload the train, prepare the show, give the performance, dismantle the scenery, reload the train and, literally, make tracks to the next community. But, if extra time cannot be had, then arrangements can be made to put the available time to the best use. For instance, in the original concept of the Tattoo train it was planned to use baggage cars to haul the tons of equipment,



then it was realized that piggyback trucks mounted on flat cars would greatly speed up the loading and unloading process. Consequently, the train will be carrying six forty-foot trailers with a total carrying capacity of 150,000 pounds.

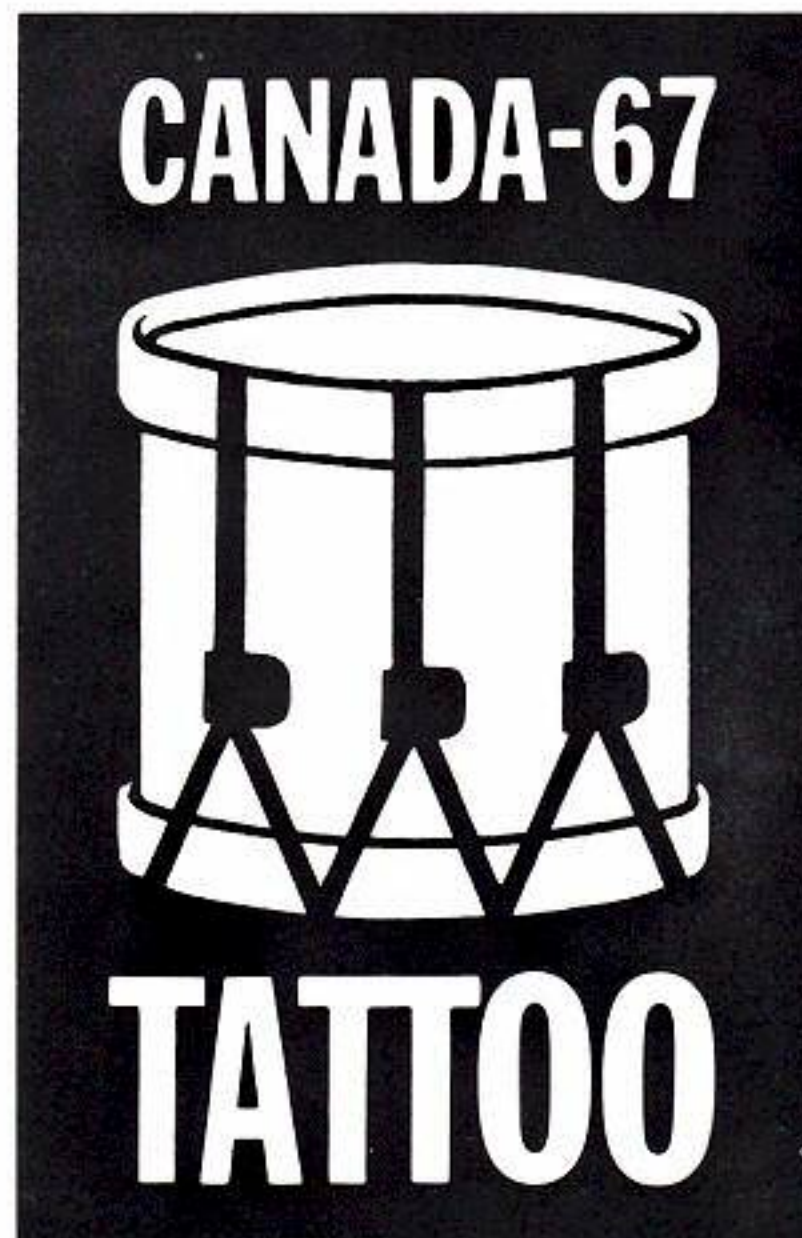
To ensure that the trucks will be unloaded in the fastest possible time, the flat cars will be attached to either the front or rear of the trains so they can be quickly detached from the passenger coaches and brought to unloading ramps. And, in fact, as the tattoo train curves through the railway yards at Halifax on its way to the terminal, the flat-cars will be dropped off on the run as they pass the arena where the evening performance will be held. Not only that, but every item in the trucks are colour-coded for ease of assembly. Furthermore, to facilitate packing, the location of each item in each trailer will be pre-planned and will remain the same throughout the tour. If practice makes perfect, then the trucks will be loaded and unloaded perfectly because many practice drills are scheduled before the trucks have to be loaded for the first real journey.

Since the Tattoo train will be, in effect, a Canadian Forces Base on wheels, arrangements had to be made for various unrailway-like facilities. An orderly room will be provided so that such popular administrative functions as pay parades can be carried out. Orderly officer, orderly sergeant and duty roster will also be in evidence. Small medical inspection rooms will be on board the trains as well as medical officers to handle minor medical problems. If a major medical problem should arise, the names and telephone numbers of doctors and dentists in each community along the way are available. And, of course, the train is linked to the passing world by telegraph so that help could be summoned and on hand when the train reached the next stop.

Canadian military personnel who are veterans of the Second World War will see no similarity whatsoever between the Tattoo trains of 1967 and the wartime troop trains. Right from the beginning it was decided that the best performances would be given by satisfied performers so all efforts were made to make the Tattoo trains as comfortable and convenient as possible. For instance, one coach is being renovated and turned into a canteen with all the customary facilities plus space for card tables, reading areas etc. But, according to the old saying, "an

army travels on its stomach", so considerable time was given to the matter of food as the biggest single factor affecting morale.

As everyone who has ever eaten in a dining car well knows, the railways have a reputation for fine food. However, the Tattoo trains will create an unusual catering requirement. Dietitians from CFHQ met with their railroad counterparts to work out some answers to the novel problems. The results of those meetings, which produced a number of "firsts" for dining car offerings, will probably be beneficial to the travelling public as well as the Tattoo personnel.



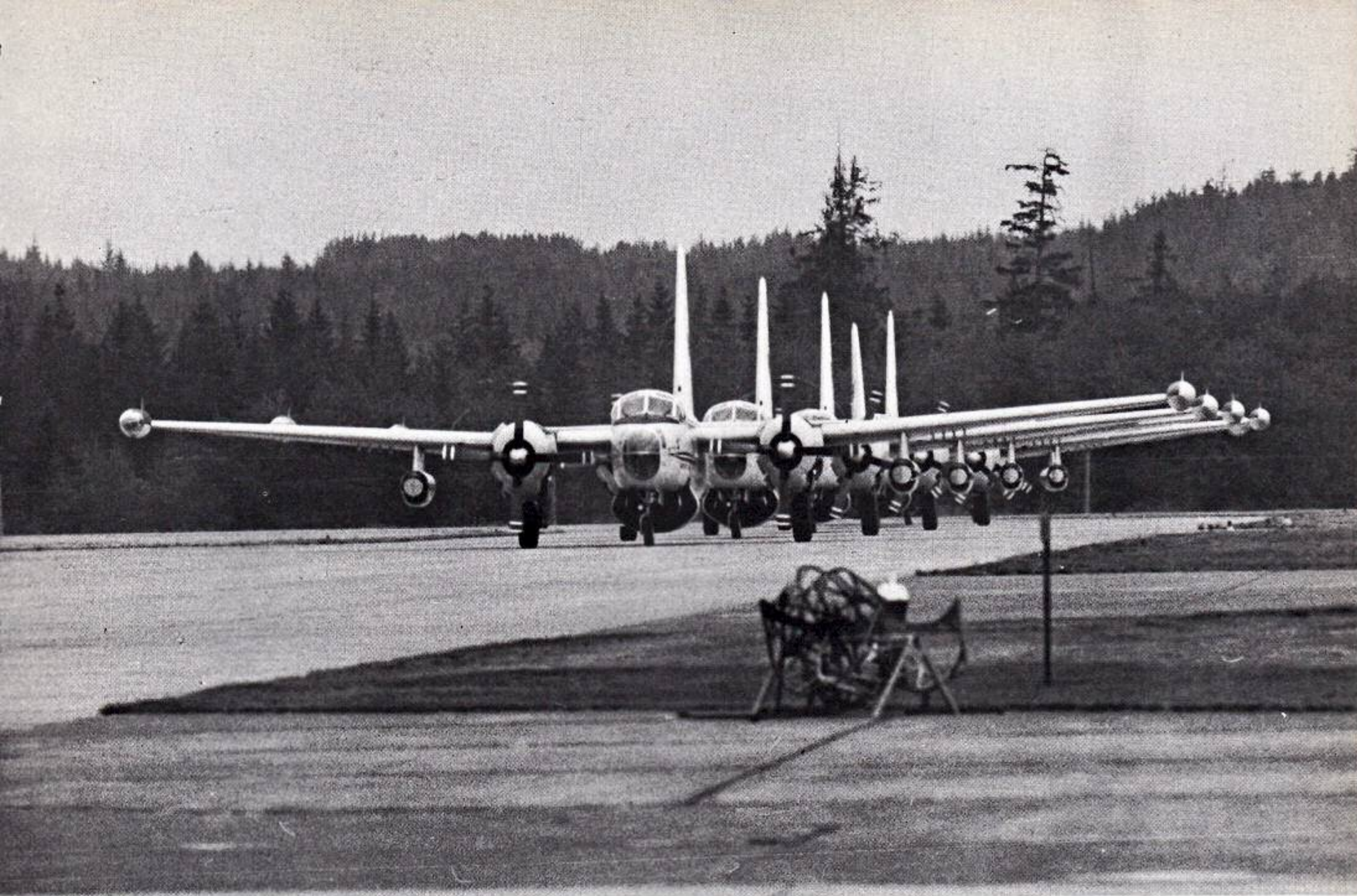
It was agreed by dining car staffs and dietitians that there is a considerable difference between railway passengers, who might be spending a maximum of five days on a train and the servicemen who will be spending six weeks on rails. The railways can meet their culinary requirements with several set menus but on the Tattoo trains the servicemen travellers will have a different menu each day for two weeks before the menu is repeated. There are other differences as well. One of the railroads customary desserts is tapioca pudding a dessert, which experience has shown, is unpopular with the troops. Alternative railways desserts such as crackers, cheese and fruit are not desserts at all in the opinion of Canadian servicemen who regard these items as merely side table supplements.

Some desirable dishes, however, will have to be forsaken such as a roast dinner with baked potatoes. Because of the small size of dining car ovens, it is not possible to cook roasts and baked potatoes at the same time but either item can be had at different meals. On the other hand, the military dietitians solved what the railroaders felt was an unsolvable problem namely, how to cook french-fried potatoes. The railways do not, as a rule, serve french fried potatoes because the swaying dining car would spill grease and start a serious fire. The answer, supplied by the military, was to use frozen french fried potatoes and heat them. The end result will be french fries without causing a fire hazard. The railroad food specialists made a valuable contribution to the matter of menus when, speaking from experience, they pointed out that veal and movement just don't mix. The steady swaying of the train following a meal of veal sometimes produces a temporary but uncomfortable sickness — an undesirable situation for personnel about to put on a performance. And so it went, item by item, the military and civilian experts went over the menu which produced a cuisine which, may well be reflected in dining cars across Canada for years to come.

When all the myriad of details are finally taken care of, still nothing will be left to chance. An advance party of military personnel will arrive at each community several days ahead of the Tattoo train to ensure that all is ready. Confirmation will be received that the civilian bus companies are ready to meet the train and transport the troops to the arena; laundry and dry cleaning facilities, previously arranged for, will be alerted; and press, radio and television people will be given the names of Tattoo members that come from the community being visited.

Many people, both military and civilian, have worked long and hard to ensure that the Canadian Armed Forces Tattoo will be a success. Beginning on 8 April 1967 as two trains, one heading east, the other heading west, pull out of the railway junction at Trenton, Ont., millions of Canadians will see how well their work has been done. What these audiences will see will be two hours and 10 minutes of spectacular and unprecedented pageantry bringing to life all the colour and drama of Canada's extremely colourful and highly dramatic 300 years of history. ❁





# Hunting the Phantoms of the Sea

Story by Master Sergeant R. B. Johnson, USAF

Photos by Cpl. James Cockrane, RCAF

In a darkened room, entombed in a solid granite mountain in Colorado, military men are vitally concerned with the activity taking place on and beneath the waters of two oceans, thousands of miles away.

These Canadian and U.S. men who serve at the North American Air Defense Command's underground nerve center use the eyes and ears of the Canadian Forces' integrated Maritime Command to search the waters off both coasts of the continent in a never-ending surveillance for any aggressor that could threaten the mutual security of both countries and their populations.

The submarine, scourge of the shipping lanes in two World Wars, has emerged in the age of the ballistic missile as a weapon of air attack. Industrial or population centers have replaced the maritime fleets as their number one targets.

There also is the problem of fishing trawlers that operate off the coastline of North America.

The exact locations of these submarines and trawlers fill in the over-all defense picture that is put together every minute at the headquarters of the international command that is NORAD.

The Ballistic Missile Early Warning

System, Distant Early Warning Line and the supersonic jet fighter-interceptors guard against the potential threat of bombers and surface-launched missiles from the polar north.

Keeping an airborne eye on submarines and trawlers, in their thousands of miles of manoeuvring area, is the job of airmen who fly the two oceans in squadrons of Maritime Command.

A real veteran of over-water operations is No. 407 Maritime Squadron. Operating out of the Canadian Forces Base at Comox on Vancouver Island, the unit is now celebrating its 25th year of front-





Ordnance and detection sonobuoys are loaded on a 407 Neptune for a sortie at sea.

The Neptune crew member picks up an echo on his scope and his wet quarry is pinpointed.



line combat mission flying. For an airman long on patience and out to pile up flying time, this is the ideal outfit. Ten or more hours per mission almost daily can soon boost flying time into the four-figure category.

The Comox squadron flies P2V7 *Neptune* aircraft built by Lockheed. In an era of supersonic jets with their array of destructive ordnance, the *Neptune* looks relatively harmless when viewed on the flight line being readied for a mission.

A different opinion could well be solicited from a crew member of a submarine that has been tracked and pinpointed for destruction by a lumbering *Neptune* flying at wave-top level above him.

With a range of 3,400 miles, the *Neptune* can fly 500 miles out to sea, patrol for six hours, and, if necessary, divert to an alternate field 500 miles from its home

base.

Modern detection devices enable this veteran ocean hunter to ferret out enemy surface or submarine vessels and to attack with an 8,000-pound load of depth charges or torpedoes with the added punch of rockets mounted on its wings.

A modification of the twin-engine plane with the addition of two turbo-jets has boosted its maximum cruising speed to 350 mph.

The men who hunt submarines and track trawlers have a language all their own. Even to a man who has been exposed to military jargon for over two decades, the conversation of anti-submarine warfare airmen is a complete enigma.

Even during a relaxed conversation, references to MAD, Sonobuoy, and Julie have a way of creeping into the picture. In this business, detection is the name of





the game, and these names are leading players.

In an operation which would appear offensive in nature, a passive approach seems to be the key. Just listen without emitting any sounds of your own. The Sonobuoy is the center of all passive listening. Carried aboard an aircraft until it is dropped in a pattern, its microphones send back signals that are heard by the hunting *Neptune*. If a submarine is in the area, its ocean cover is soon peeled away and it lies vulnerable to the weapons carried by the men of the Maritime squadron.

Of course, the submarine, in many cases, will be aware that the hunt is on and take their own defensive measures. A reduced speed will cut the sound to a whisper. Sonobuoys are still used, but an explosive charge is also dropped and its

echoes can still pinpoint the underwater quarry. The use of explosives is called Julie.

If they still miss they can call on sonar. Like radar, this device releases a wave of energy and echoes rebounding from submarines give a range and bearing to the source.

The MAD system detects changes in the earth's normal magnetic patterns. A submarine beneath the surface would disrupt this pattern and show up on the system display on the *Neptune*.

In this game, the submarine is strictly the underdog when it tangles with men of the anti-submarine warfare.

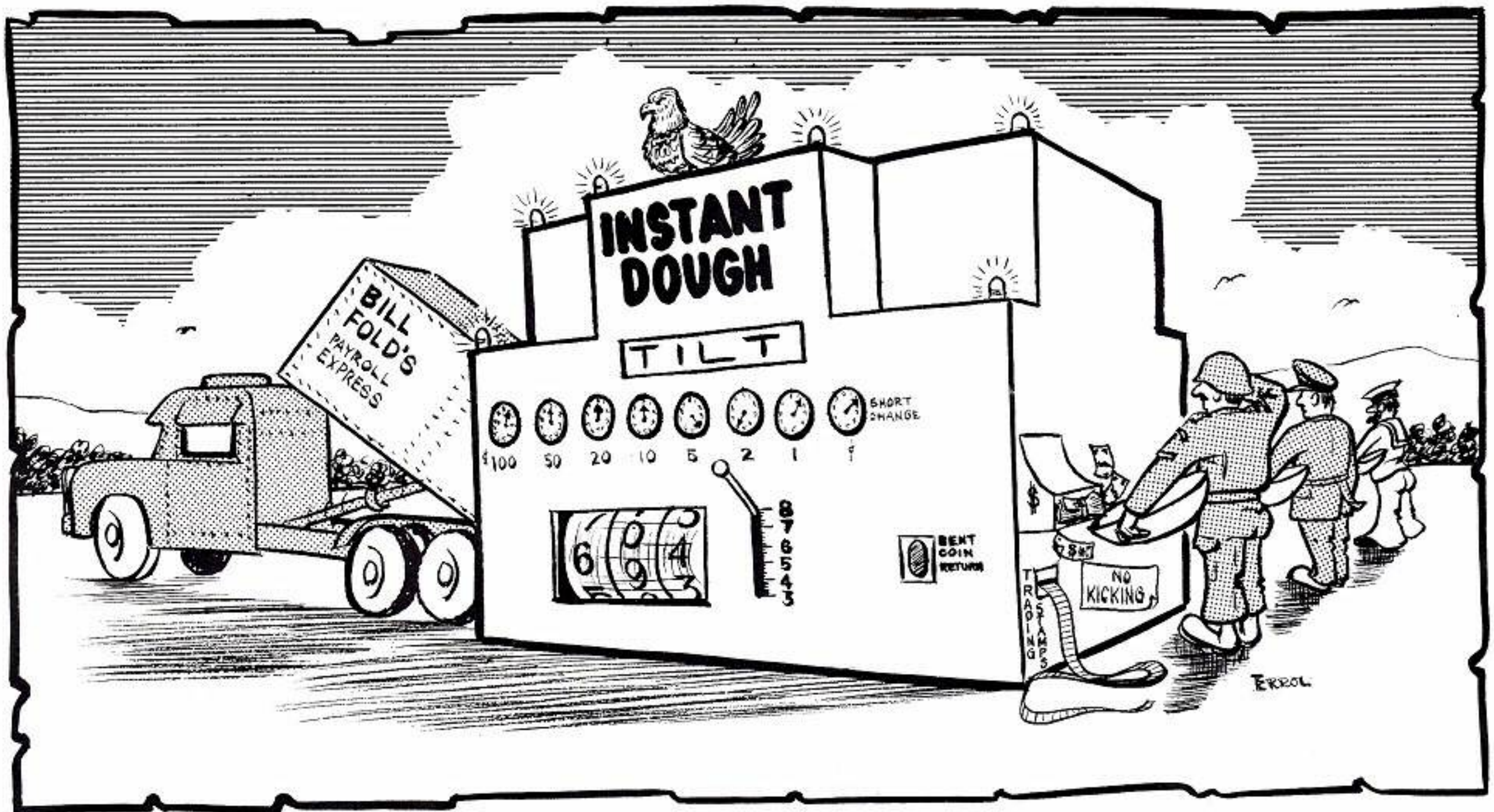
These Canadian airmen, and their U.S. counterparts, send a constant stream of intelligence into NORAD which contributes substantially to defence against attack from the air or under the sea. ❄

*A 407 Neptune looks at its ASW partner in Maritime Command, docked at Esquimalt*

*From a Neptune, an electronic camera records surface vessels for later identification.*







# They're Automating Your Pay

By  
Lt. D. C. Lory

Once upon a time a weekly pay envelope and a horse and buggy reflected security and progress.

Today, that weekly pay envelope has been caught up in the electronic era which is doing for it what the family car did for old Dobbin and his buggy.

In Canada's Armed Forces, where pay and electronics already have some dealings, the electronic era shortly will stage a full scale invasion of the armed forces pay field which will result in a system unique in the world.

Now a completely centralized and computer-oriented pay system is to be introduced which will save an estimated \$1,000,000 each year in personnel costs alone.

Until recently, a half million separate transactions each month were carried out by 1,400 persons who looked after the more than 100,000 pay accounts for servicemen.

These transactions included routine

changes to the 600,000 monthly pay allotments which the servicemen have in effect to dependents, banks, insurance companies, etc. Pay increases, tax adjustments and other circumstances necessitate additional amendments.

These allotments are necessary to insure that in this highly mobile age a serviceman's family and business obligations can carry on even though he is suddenly half way around the world.

Each of the services now has its own pay system, developed over the years to meet particular demands. The army has been using a small computer since 1957 to audit pay accounts while the RCN and RCAF use essentially manual systems with limited use of conventional data processing equipment.

The task of overseeing the develop-

ment of a common pay system is in the hands of Captain J. K. Power, RCN, director of pay services at headquarters.

"All three of our pay systems had weaknesses", Captain Power said, "and none was suitable for adoption as a common system. What had to be done was to determine the requirements for the Service Pay System, and how it best could be accomplished."

For this task, a Pay Study Project Group was formed in August, 1964, with Lt.-Col. D. W. A. Digby as chairman.

The study group investigated pay systems used in the U.S., Britain and Australia, as well as those of the Canadian Civil Service Commission and commercial firms such as the CNR, CPR and Bell Telephone.

"We took a careful look," Col. Digby said. "We found the trend was to centralized computation of pay and allowances through computers. We also talked to manufacturers of data processing



equipment and found equipment suitable for our purposes could be obtained on a monthly rental basis costing only slightly more than the rental of conventional punched card equipment we already had in headquarters”.

As a result of a complete study of the problems in this complex field, a new system was framed. This system will do away with the army pay books, the navy's pay records and the air force ledger systems.

In their place will be a standard pay record form for a “pay guide” for all three services. Now, instead of 1,400 people attacking 500,000 transactions each month a computer will be assigned the task.

“There is one thing about this new system that might mislead some people,” Captain Power said. “All this will not result in figures and facts being fed into one end of the computer and a cheque arriving at the other.

“The computer will look after the thousands of routine transactions and provide the pay guides only. For the time being at least, we do not envisage all armed forces personnel being paid by cheque from a central location”.

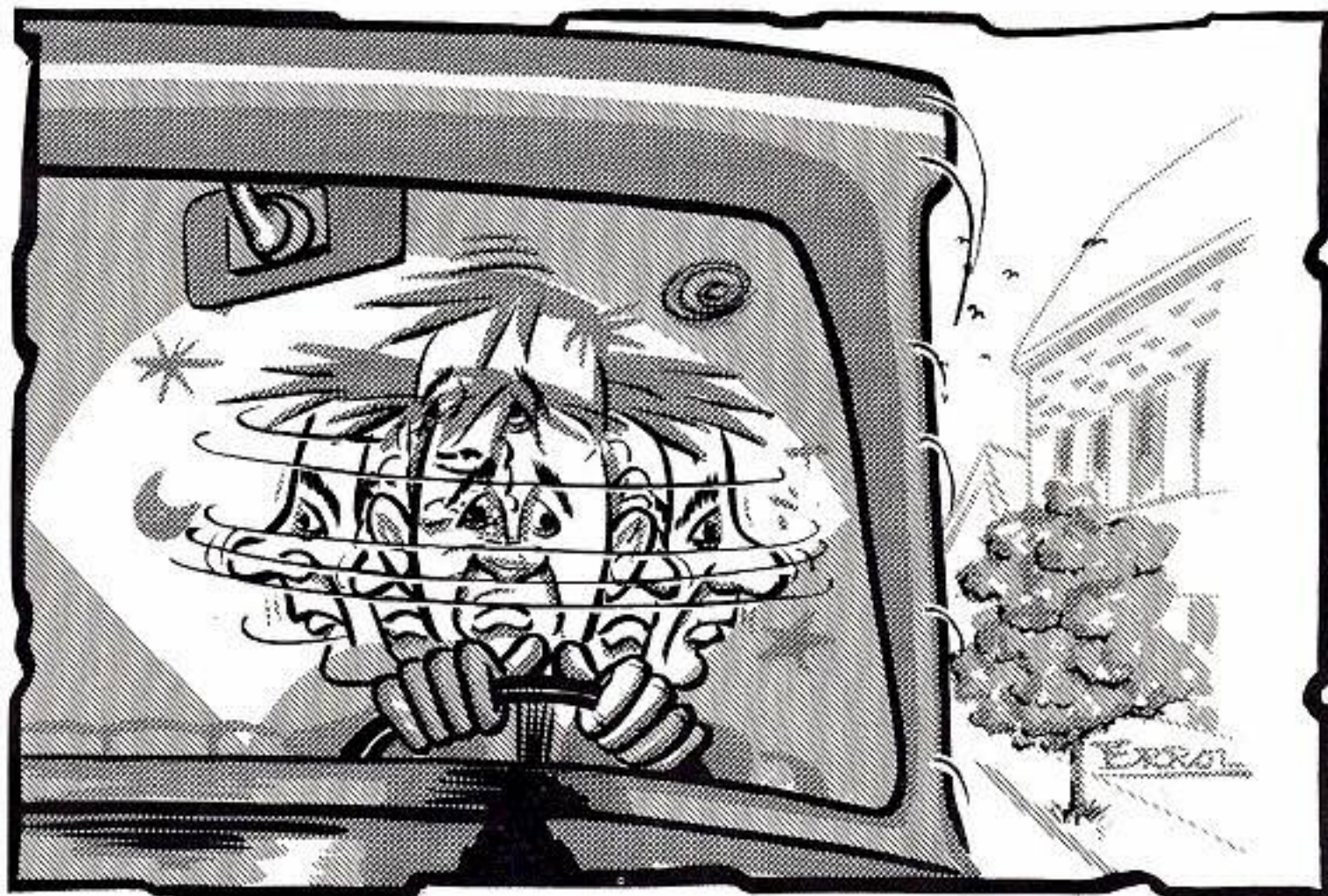
The sailor at sea, the soldier in Gaza and the airman in France all will have individual pay guides which can be used at any Canadian armed forces unit or location. Amendments, as they occur, will be transmitted to headquarters for adjustment purposes. This will result in a minimum of effort at the local level.

Tenders for the computer equipment have been received and will be subjected to detailed study and evaluation. It is expected the contract will be awarded later this year, with the computer to be delivered about June, 1967.

Army accounts will be the first to be modified to the new system, followed by the navy then the air force. By June, 1968, the new system should be in full swing.

“This is a tremendous task,” Captain Power said. “It is complex even here in Canada where the services have equivalent ranks and where we are in the process of integration.

“Armed forces of other countries that are aware of our plan are very interested, and even commercial firms are watching. Besides being the only system of its kind in the world, we are also confident it's going to be the best.”



## RUBBERNECK!!

One of the better variations on the noble art of self-defence has been developed for drivers by Harold Smith, head of a large driver consulting firm in Los Angeles. So?

Well, statistics prove that the best way to drive is with the belief that everything is against you, including the fact that 95 per cent of all accidents are caused by the driver. The other five per cent may be attributed to natural phenomena or mechanical failure of some control device. Therefore, it follows that the safest way to drive is defensively.

The “Smith System” of doing this, according to its creator, “is based on space visibility. It's a formula for getting and keeping space and visibility in quantity”. Smith believes that with his system a vehicle operator can become a smoother and safer driver, and he paves the way toward that goal with five simple rules.

The first rule is to **aim high in steering**. When you walk you look about 25 feet ahead; at driving speeds of 25-30 mph you should be picking out a steering path several hundred feet ahead.

Next, **get the big picture**. At city speeds the big picture is a block long, extending from the front bumper of the car and taking in the

right sidewalk and the oncoming traffic on the other side of the centre line. On a residential street it is still a block long but extends from sidewalk to sidewalk. In the country it's expanded to take in such things as side roads and rail crossings.

**Keep your eyes moving** at all times to avoid over-concentration on any one item in the traffic stream. Use your eyes like a spotlight sweeping from right to left, and to the rear via the mirrors. This way you can select the important and reject the unimportant. Smith says next to **leave yourself an out**. Don't let your vehicle arrive somewhere before you've checked every area in which you could be trapped into an accident. Also keep your speed consistent with the situation. Finally, Smith says to **make sure they see you**. This applies to pedestrians, children, other drivers and animals; and is accomplished by eye contact and the use of your horn, signals and lights.

A film titled “Smith System of No Accident Driving” is available in the Forces film libraries and is well worth the viewing.

Incidentally, while you were reading this, 135 automobile accidents happened in North America, killing about two people and injuring 36.



# Over our Shoulder

## ZEPPELINS

Captain F. R. McGuire

Directorate of History

German naval airships carried out some 300 bombing sorties on Britain during the First World War but their main purpose was defensive scouting for the German fleet. It was in the latter role that Zeppelin L-53, the last dirigible to fall under attack from the air, met its end on 11 August 1918.

Twelve airships in all were brought down by British planes, and in six cases airmen from Canada were instrumental. The destroyer of the L-53 was Lieutenant Stuart D. Culley of Montreal.

In one respect the L-53 incident was a "first" as well as a "last". There were only a few aircraft carriers in those days, and for months Rear Admiral Sir Regi-

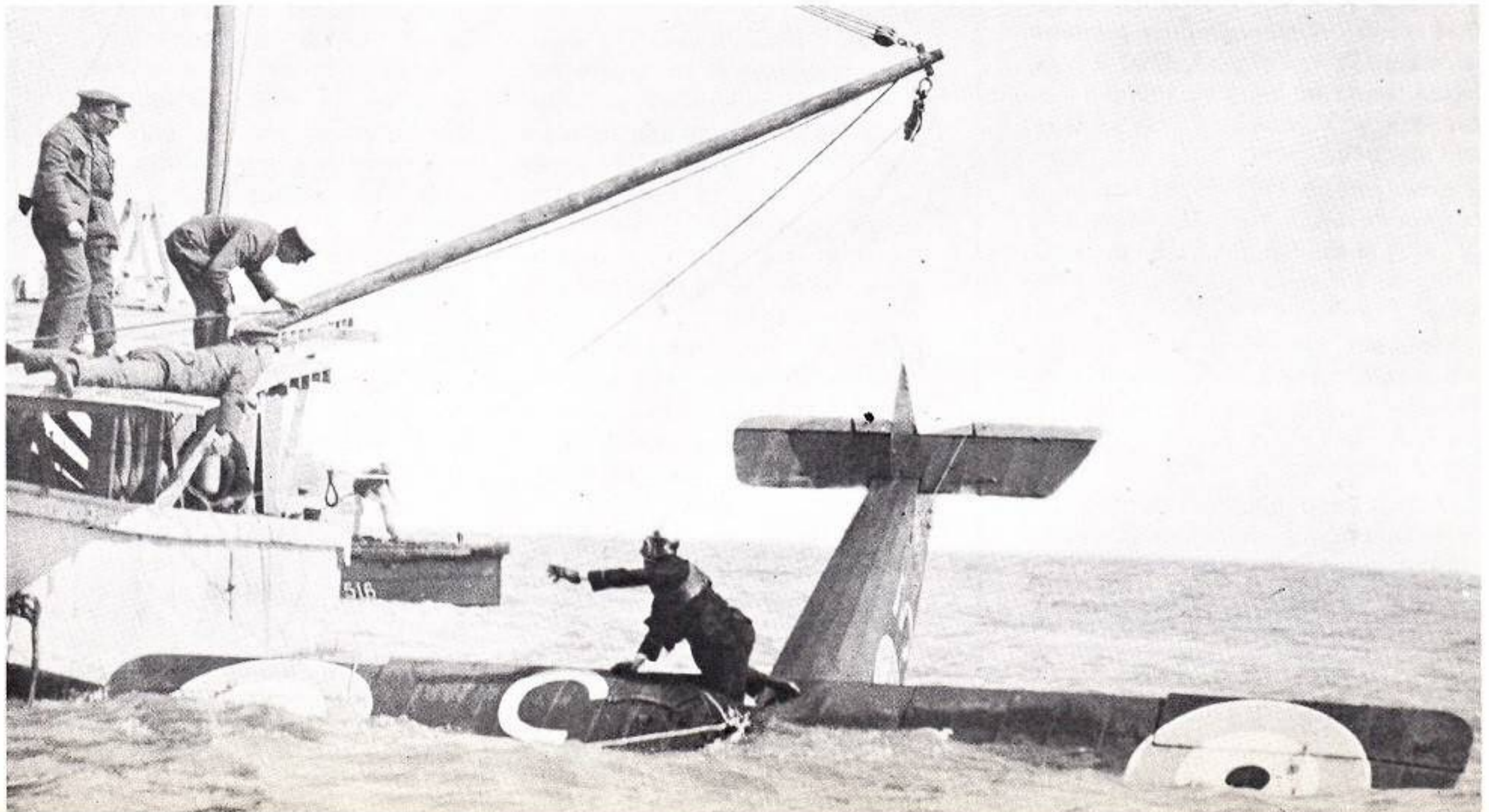
nald Y. Tyrwhitt, commanding the Royal Navy's Harwich Force, had been trying to improvise other means of prompt sea-to-air action. The answer seemed to be to mount a fast (120 mph) Sopwith *Camel* fighter on a lighter, a platform towed against the wind; the pilot would have his engine running, and when the lighter reached 30 knots (34 miles an hour) he would release the aircraft. The first experiment of this nature, at the end of May, recalls a scene from, "Those Magnificent Men in Their Flying Machines." The plane, piloted by a senior RAF officer, simply cartwheeled into the water and its occupant nearly drowned! Two months later — and only 10 days before

his encounter with the L-53 — Lt. Culley carried out a similar experiment with happier results.

On the evening of 10 August, Admiral Tyrwhitt set out from Harwich with four light cruisers, 13 destroyers and six motor torpedo boats (MTB's). The main aim of the expedition was to attack German minesweepers in the Heligoland Bight with the MTB's. Air support was to have consisted of a number of seaplanes and — on a lighter towed by the destroyer *Redoubt* — Lt. Culley and his *Camel*. Ridiculous as it may seem, however, the weather on the 11th was too good for the seaplanes! They couldn't get off the water, for there was no wind.

Admiral Tyrwhitt directed a flight of aircraft from Yarmouth to cover the motorboats but, owing to patchy visibility, the pilots were unable to find the flotilla. Eight planes which the flotilla commander at first supposed were friendly, turned out to have German crosses on their wings. For half an hour the flotilla more than held its own: the MTB's escaped serious damage by enemy bombs, while one of the aircraft at least began to fall under a burst from an anti-aircraft Lewis gun. But at 8:00 a.m. more German planes arrived — four fast fighters, each armed with two machine guns. The flotilla's Lewis gunners continued to fire, and one of the planes was seen to crash. By 8:15 what had been (to quote the Naval Historian) "the fastest action ever fought at sea" was over. Three of the

*During the first efforts to take a Camel off from the deck of a towed lighter, lack of wind sometimes hampered the operation disastrously.*





boats ended up in neutral Dutch hands; the remainder were sunk. Not one of them returned to the main body.

Meanwhile the Admiral, quite unaware of the plight of the torpedo boats, had sighted a scouting Zeppelin — the L-53, as was established later, commanded by Kapitänleutnant R. E. Prölss. The airship was a long way off, and it seemed most unlikely that even with the best of luck Lt. Culley's *Camel* could get within striking distance as matters stood. Tyrwhitt therefore ordered the force out to sea under a smokescreen, hoping to entice the airship commander to follow. The ruse worked, though it was still far from certain that Culley would ever reach the Zeppelin. It took the *Camel* over half an hour to climb 18,000 feet, and the higher it got the loggier its movements became.

Prölss's curiosity evidently satisfied, the L-53 was now heading back towards Germany at 19,000 feet. The same patchy visibility that had prevented the British planes from Yarmouth finding the friendly torpedo boats apparently enabled Culley to take off and approach unnoticed, for the airship's movements were quite leisurely.

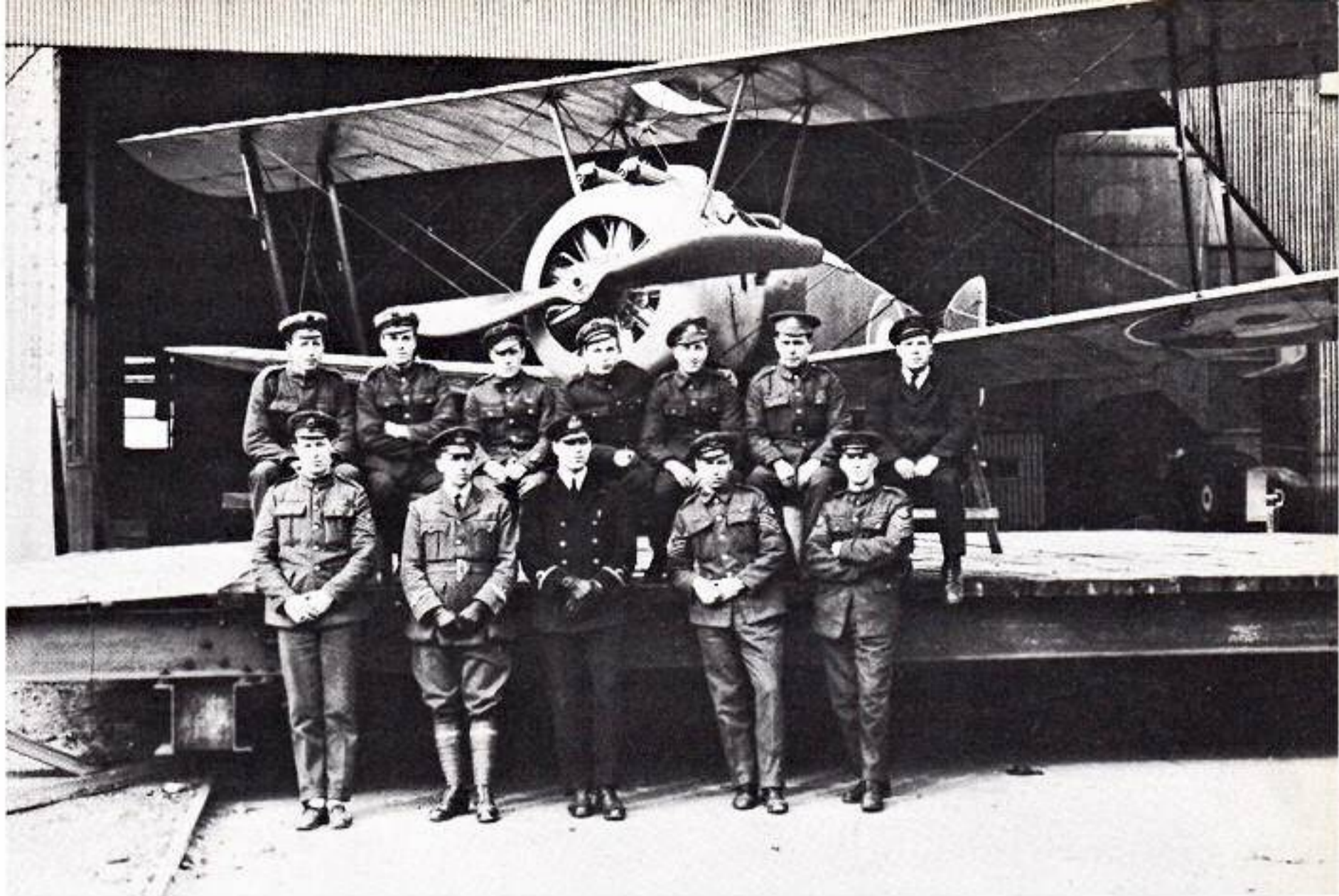
By 9:40 Culley had overtaken the L-53, but he was still 300 feet below it and unable to get any higher. Although most *Camels* including his own were armed with fixed Vickers guns firing forward, Culley had instead two Lewis guns mounted to fire upward through slots in the top wing. One gun jammed after a few rounds, but with the other he emptied a double drum of 97 rounds into the Zeppelin. Explosive bullets tore large holes in the outer shell and inner cells; incendiaries touched off the escaping hydrogen.

Admiral Tyrwhitt's force could no longer see either Culley's plane or the L-53, but at exactly 9:41 some members did see "a burst of flame followed by a cloud of white smoke and debris". The Admiral promptly signalled all ships, calling their attention to "Hymn No. 224, verse 7" —

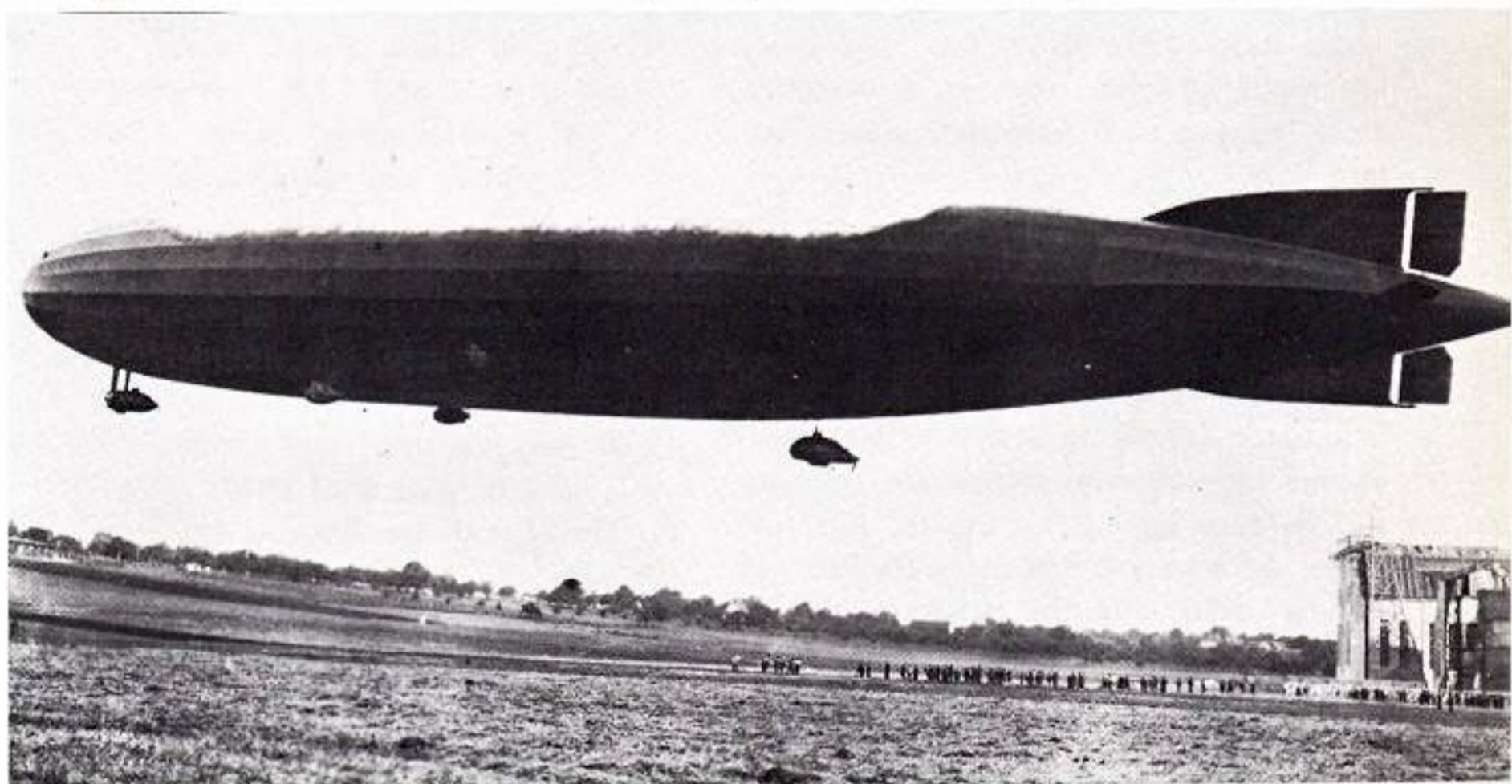
Oh happy band of pilgrims,  
Look upward to the skies,  
Where such a light affliction  
Shall win so great a prize.

The "light affliction" almost failed to rejoin the happy pilgrims. Culley spent two hours looking for the ships and was almost out of gasoline when he finally sighted them. Both the pilot and the aircraft were recovered.

OCTOBER 1966



The Officer in the centre is Lt. S. D. Culley, DSO, now Group Captain (retired) of the RAF.



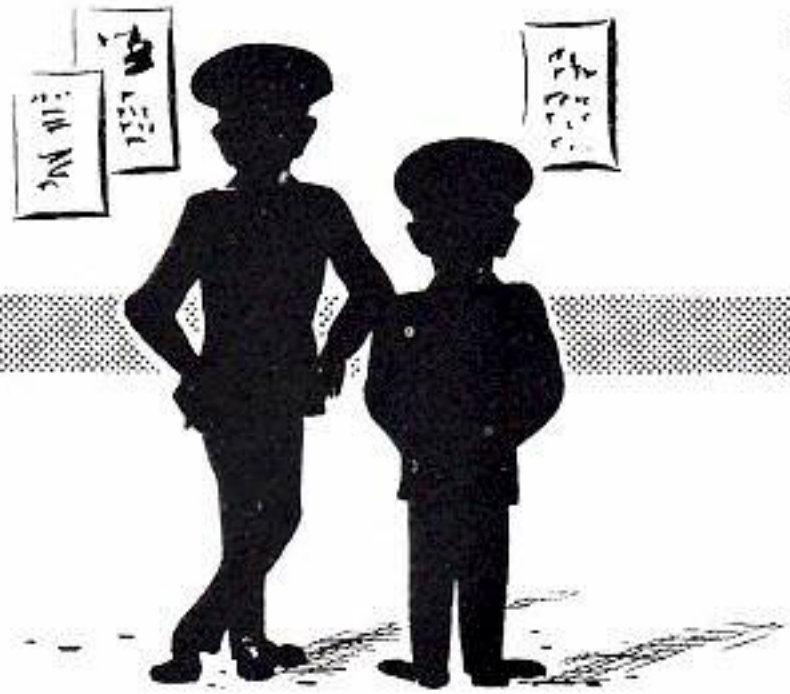
German Zeppelins, like the one above — believed to be the L53 — shot down by Lt. Culley.



A Sopwith Camel being towed on a lighter from which it took off at 30 knots into wind.



# KEEPING POSTED



Six ships of the Royal Canadian Navy are to be equipped with an all-weather, close range, surface-to-air missile system.

The announcement was made by Defence Minister Paul Hellyer during a visit to Halifax on September 21.

The system, called the Canadian Sea Sparrow, will be fitted in the four new helicopter destroyers and two new operational support ships to provide an effective defence against air attack. The first of the destroyers is scheduled for delivery in late 1970, and the program will be completed in 1972. Construction of the two operational support ships is scheduled for completion by late 1969.

The system will use the Sparrow III missile employed by the US Navy, coupled with a fire control system designed in the Netherlands, and a Canadian launcher. The missile does not carry a nuclear warhead. The system is the result of a year's study by naval and civilian contractors working under RCN direction. The development program will start by the end of this year when plans call for the awarding of a contract to a Canadian firm. A large portion of the entire system will also be produced in Canada.



Four Royal Malaysian Air Force pilots on 15 June became the first of their service to begin a one-year jet training course in Canada under the program of military assistance to Malaysia. The course is being held at CFB Gimli, Man.

At present 12 Malaysian pilots are

training on piston-engine aircraft at CFB Borden, Ont., and CFB Portage la Prairie, Man. Meantime, seven Malaysian Officer Cadets are taking military training at CFB Borden.



More than 2,000 Canadian schoolchildren will receive Centennial Medallions late this year, and about 5,498,000 will have to wait until 1967.

The 2,000 are Eskimo children who

live in areas without air strips which cannot be reached by ships during the months scheduled for distribution of the medallions. As a result their centennial mementoes will be packaged and dropped by parachute late this fall by RCAF aircraft. The communities involved are those northeast of Hudson Bay and north of Fort Churchill along the west side of the Bay. Others are such places as Alert Bay and Mole Bay on the Arctic islands.

It is planned that most Canadian schoolchildren will get their medallions on 1 June 1967. Were it is for the paratroop the Eskimo youngsters wouldn't receive theirs until ships called in their areas late in July 1967.

The medallions are being produced by the Royal Canadian Mint, and ships going north this summer left too early to take them as part of their cargoes.



Three Bird-class vessels, the *Mallard*, *Cormorant* and *Loon*, are flexing themselves in eastern Canadian waters after three years of inactivity.

The 80-ton RCN patrol ships are carrying out four training cruises for 110 third-year cadet midshipmen from the Canadian Service Colleges and universities.

Purpose of the training is to increase the cadet midshipmen's experience and



About 60 officers representing four countries met at CFB St. Hubert, Que., between 5 and 12 October for the seventh Quadripartite Conference on Armour. During the conference the delegates saw static and live demonstrations of experimental equipment, including the Commando armoured personnel carrier and Canadair's Dynavert, an aircraft which combines the vertical take off with horizontal flight. Senior representatives were Col. K. R. G. Coleman, Australia; Maj-Gen. A. D. Surles, Jr., United States; Maj-Gen. J. R. Holden, Britain; and Col. F. W. Wootton, head of the Royal Canadian Armoured Corps.



competence in pilotage and navigation, shiphandling and communications and to prepare them for the responsibilities of watch-keeping in destroyer escorts.

The squadron is commanded by Lieutenant J. G. Comeau, and will visit smaller ports in Nova Scotia, New Brunswick, Prince Edward Island and Quebec during the training cruises.



Late this summer, and for at least one year, CFB Penhold will provide accommodation for about 300 Royal Canadian Mounted Police recruits and a 75-member training staff.

An increase in RCMP recruits overflowed training facilities at Regina.

Use of CFB Penhold by the RCMP and the Armed Forces beyond the one year period will be reviewed early in 1967.



Maritime Command's No. 407 Squadron is an obliging outfit. . . .

This fall, Wing Commander H. E. Smale, the Comox-based unit's commanding officer, was in the midst of a press conference held in conjunction with the squadron's celebration of its 25th anniversary early in September. The CO was outlining the history of the unit, its purposes, and was answering a host of ques-

tions from newsmen.

"During its routine anti-submarine and other patrols off the British Columbia coast," W/C Smale said, "the squadron often performs a sideline service which is of great interest to the Federal Fisheries Department.

"The crews," he explained, "keep track of whale sightings and then relay their findings to the fisheries people."

"Sir," asked a serious-visaged newsmen. "How are the chances of the squadron letting me know where I'll find a good run of coho salmon next weekend?"

. . . but there's a limit, even for 407.



Canadian secondary school students between 14 and 20 years of age will have a chance at shares of \$3,500 being offered as prize money in an RCAF Association national and Centennial youth project.

Full details are available from RCAF Association Wings in each province.

The project, officially titled RCAF Association Youth Aeronautics and Aerospace Essay and Project Competitions, is aimed at encouraging and furthering interest in aeronautics and aerospace in Canada, and is in two parts.

Part one is an essay competition. The essay may be on any subject of aeronau-

tics or aerospace. The length of the essay is limited to not more than 1,000 words, and the closing date for entry is 31 December 1966. Prizes range from \$300 to \$400.

Part two is designed to encourage secondary school students, sponsored by a member of the RCAF Association, to submit any project or model associated with aeronautics or aerospace. The closing date for this portion of the competition is 28 February 1967.

Winners of awards in both competitions will be notified by letter in September 1967.



Canada's first Tribal class destroyer, HMCS *Iroquois*, left Halifax under tow in mid-August, headed for Spain and the boneyard.

The *Iroquois* was one of four British-built Tribals in the RCN during the Second World War. The others were the *Haida*, *Huron*, and the first *Athabaskan* which was sunk in enemy action.

Completed late in 1942, the *Iroquois* was in her first major action in July, 1943, in which she picked up no less than 628 survivors from two torpedoed troopships off Portugal.

After a Halifax refit she began, in August, 1944, to disrupt German coastal supply by sinking or helping to sink 15 ships and damaging others, including a German destroyer. Later she served on the perilous Murmansk run to the Russian Arctic. One of her last wartime duties was to escort Norway's war-exiled crown prince back home in triumph.

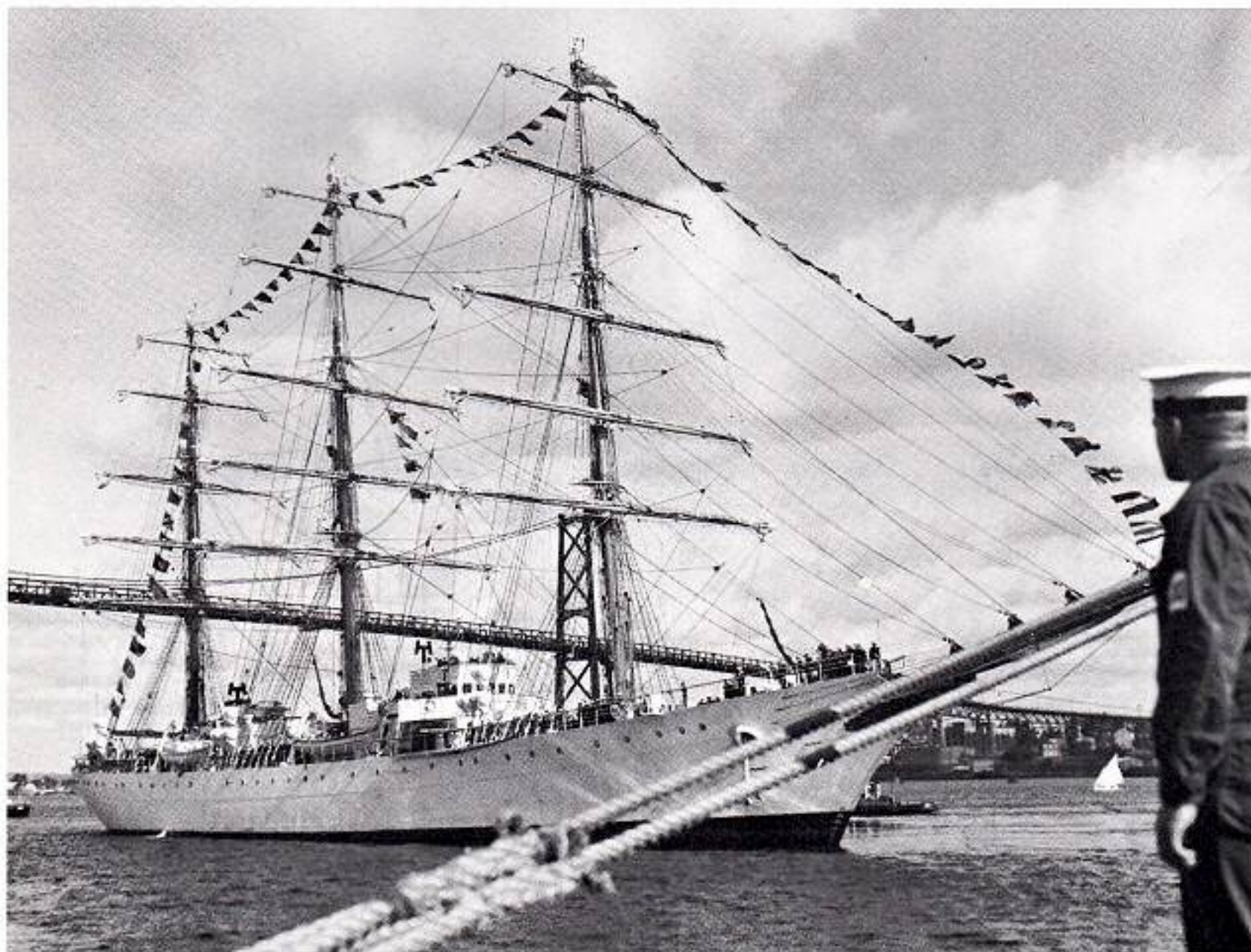
The *Iroquois* had three tours of duty with the UN fleet in the Korean war theatre. She took a direct hit on a gun from a Communist shore battery which killed three of her people in the first Korean tour. These were the only fatal casualties the RCN suffered in that theatre by enemy action.

Paid off to reserve in 1962 she lay at Sydney, N.S., and in 1965 was turned over to Crown Assets for disposal. Sold earlier this year to a Spanish firm for scrapping she was towed overseas to Bilbao by the ocean tug *Praia da Adraga*.



In September the North American Air Defence Command (NORAD) started out on its tenth year as watchdog to the air routes of this continent.

NORAD was formed by the United States and Canada in September 1957, joining the air defence forces of both



The stately *Libertad* glides into Halifax harbour for a five-day visit at the end of September. Commanded by Cdr. Ricardo Guillermo Franke, she was on her way to visit ports in Ireland, England, West Germany, France, Spain, the Canary Islands and Brazil, prior to returning to Buenos Aires in mid-January. The *Libertad* carries 28,422 square feet of sail and is employed in training cadets at the Argentine Naval Academy at Rio Santiago, Argentina.



nations into one organization.

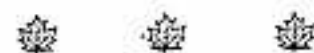
Today its function is referred to as aerospace defence, employing about 170,000 people at some 400 locations around the world: manning jet fighters, interceptor missile bases, control centres, radar networks to warn of bomber and missile attacks, and a global system of satellite-watching sensors.

The contributors of people and equipment to NORAD include the Canadian Forces Air Defence Command, U.S. Air Force Air Defence Command, U.S. Army Air Defence Command, and the U.S. Navy.



The Dominion of Canada Rifle Association (DCRA) was formed in 1868, "to make the male population of Canada thoroughly conversant with the use of the rifle." Thoroughly conversant they became, and over the years Canadian riflemen have shot their way to fame in Bisley, Olympic and other international shooting matches. Although open to all male Canadian, whether civilian or military, many of the competitors are members of either the active or reserve components of the Canadian Armed Forces. This year was no exception. At the DCRA, which is held the week before the Canadian Forces Small Arms Competition (see Sept. issue), hundreds of sharpshooting servicemen competed against civilian riflemen for individual and team prizes. Two Queen's Medals were at stake; one for Militia and RCMP and one for Regular and Reserve RCAF personnel. The Queen's Medal for the Militia went to Pte. R. D. Clark of the Royal Montreal Regiment while the RCAF's Queen's Medal was won by F/L O. J. Ruckpaul of CFB Cold Lake. Major R. W. Hampton, who earlier this year won the Queen's Prize at Bisley, England, captured the Canadian Service Rifle Championship.

Military competitors at the DCRA also won all 18 places on the Bisley team which will represent Canada at the Bisley matches in England next year. Air Marshal F. R. Sharp, the Vice-Chief of the Defence Staff, presented the prizes at the conclusion of the highly successful competition.



A cairn was unveiled in Worthington Park, CFB Borden, on 14 August 1966, honouring members of the Royal Canadian Armoured Corps who gave their lives in peace-keeping operations with the

United Nations.

All ranks at the RCAC School paraded, and the cairn was unveiled by Major General F. F. Worthington, an officer whose vision and persistence earned him the name "Father" of Canada's armoured corps.

The Honour Roll includes: Lt. C. C. VanStraubensee; and Tprs. R. J. Riley and G. E. McDavid, Lord Strathcona's Horse (Royal Canadians). Tprs. R. H. Allen and J. H. Campbell, Royal Canadian Dragoons. Cpl. P. R. Wallace and Tpr. A. A. Bons, 8th Canadian Hussars (Princess Louise's).

A similar memorial was originally erected in the winter of 1964 at Fort Worthington, Camp Rafah, Egypt, by members of D Squadron, 8th Canadian Hussars (Princess Louise's). At its unveiling one year later it was dedicated to those who had given their lives with the UNEF in Egypt.

In February 1966, however, A Sqn., 8thCH, became the last Canadian Armoured Squadron to serve in Egypt, and their sector was turned over to the Brazilians. As a result, A Squadron removed the name plates and plaques from the cairn and brought them to Canada for the new memorial at the RCAC School.

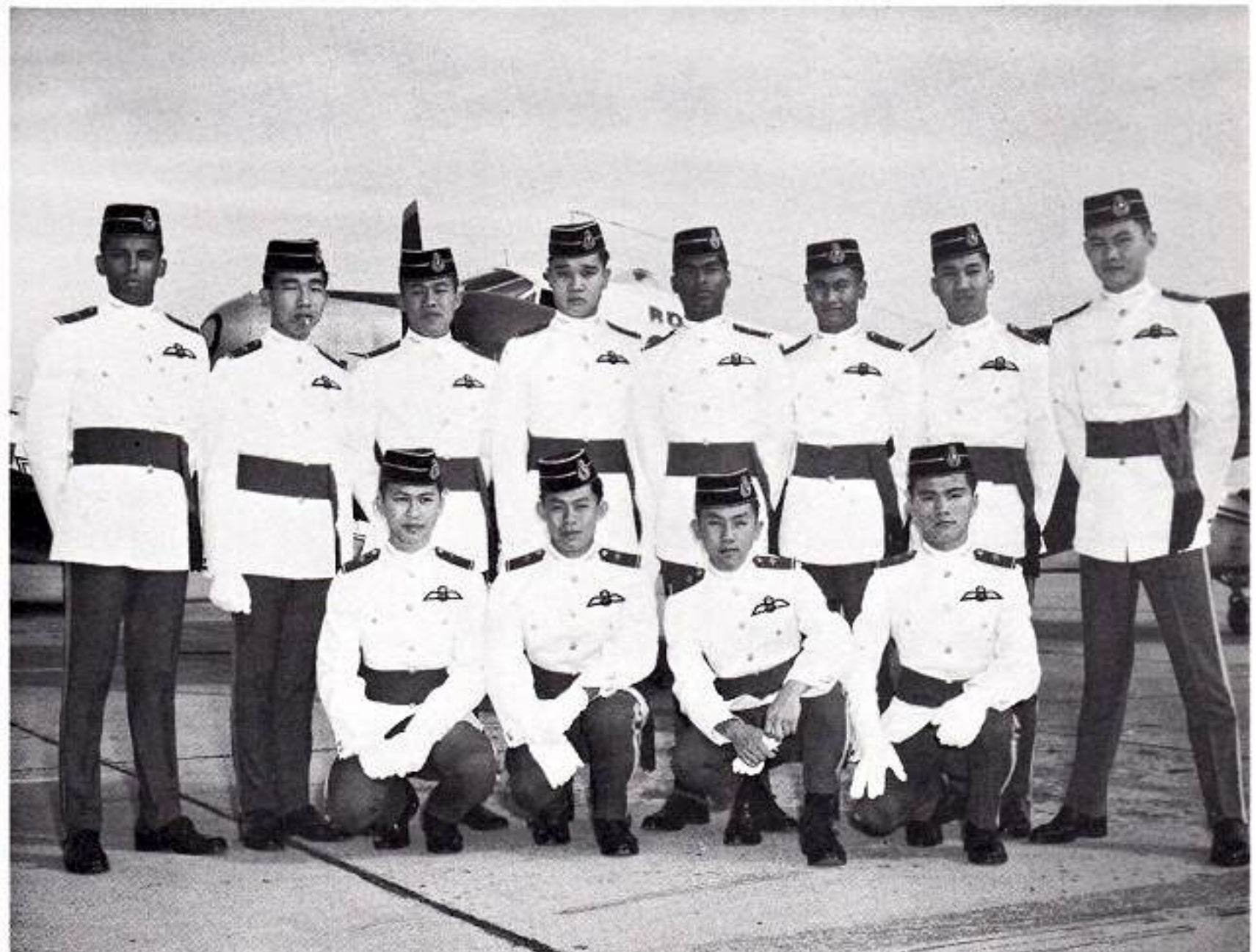


Some Canadian trained submariners will be going aboard HMCS *Ojibwa* toward the year's end as the result of the First Submarine Course ever given in Canada.

The course was started on Monday, 3 October, at the Fleet School in Halifax.

Lt. J. B. Elson is in charge of the seven-week course, and is assisted by CPO A. R. Hawkins and PO F. R. Howell. The three are experienced submariners. Under their guidance the 12 student submariners, each of them carefully selected volunteers from various trades, will be taught basic submarine construction, methods of control, means of propulsion, common routines and practices, and will make visits to submarines in harbour.

The course was established to train the increasing number of men required for Canada's expanding submarine fleet, and because foreign training can no longer meet all the RCN's requirements. In the past, all RCN submariners trained either in Britain or the United States; and in the last 10 years several hundred Canadians received that training.



*These 12 Malaysian trainees graduated as pilots at CFB Portage la Prairie, Manitoba, in mid-September. They are the first members of the Royal Malaysian Air Force to train in Canada, and have returned to their homeland to fly aircraft types like the Canadian-built Caribou and Otter. The 12 pilots spent almost a year in this country, adding their names to those of the aircrew of 16 other nations trained here since 1951.*



# People

Four members of the RCN — Lieutenants J. A. Chisholm, P. A. Blanchard, J. W. McDermott, and Leading Seaman K. F. Bowen — have been awarded the Queen's Commendation for Brave Conduct while serving in the aircraft carrier HMCS *Bonaventure*.

On 2 November 1964, while HMCS *Bonaventure* was undergoing a minor refit in St. John, N.B., a fire broke out in one of her compartments. The heat and smoke were intense, and there was danger of explosion.

Lt. Chisholm, as Engineering Officer of the Day, took charge of the fire fighting after first going into the area and rescuing two trapped workmen from adjacent compartments. He also located and recovered the body of a third man who had been asphyxiated. He then re-entered the burning compartment and directed operations at the face of the fire. The citation states in part: "By his prompt courageous action, and disregard for his own safety, Lt. Chisholm averted further loss of life and greater damage to the ship. His courage and leadership under hazardous conditions was an inspi-

ration to the ship's fire fighting team who successfully contained and extinguished the fire."

The award to Ldg.Sea. Bowen is for his actions at sea on the night of 18 October 1965.

Word had been received by HMCS *Bonaventure* that the destroyer *Nipigon* was on fire and urgently required medical assistance, fire fighting equipment, and wished to evacuate eight seriously burned members of her crew. The citation to the award states in part: "Ldg.Sea. Bowen was employed as aircrewman on helicopter "Pedro" which made three flights between the two ships delivering supplies and equipment and returning with the eight injured crew members. Entirely on his own initiative, Ldg.Sea. Bowen stationed himself in the main cabin door and directed the aircraft from ship to ship." The citation adds that: "Without this steady stream of information, the pilots whose vision was restricted by darkness and rain would have found the mission extremely difficult to complete."

Ldg.Sea. Bowen also supervised and assisted in the loading of the aircraft.



LS K. F. Bowen

The citation concludes by stating that he exhibited a high degree of initiative, airmanship and courage which reflected great credit upon himself.

Lts. Blanchard and McDermott were, respectively, pilot and co-pilot of the helicopter "Pedro" and the citations to their awards state that the three flights "were made despite the hazardous conditions that existed at the time, a dark night with visibility reduced in rain, and flying a helicopter that was not designed for low flying over water at night under instrument conditions." The citations praise the skill of these two officers, and their devotion to duty and complete disregard for their own personal safety.



Lt. J. W. McDermott



Lt. J. A. Chisholm



Lt. P. A. Blanchard





*A/V/M Bradshaw and FS MacAllum  
Flight's fancy*



*Vic, Norm, Gordie, Verne  
Howe-de-do*

Their actions, the citations add: "allowed eight men to receive urgently required medical treatment only available on HMCS *Bonaventure*."



**Brigadier M. L. Lahaie**, formerly officer commanding Eastern Quebec District, was in mid-September posted to the military component Canadian delegation, Laos, for a one-year tour as military adviser.

Brig. Lahaie served with the 4th Medium Regiment, Royal Canadian Artillery, in France, Holland and Germany during the Second World War. In post-war years he served at army headquarters, Ottawa; commanded the 79th Field Regiment, RCA, with Canada's NATO brigade in Germany; and commanded Camp Valcartier before assuming the duties of commander, Eastern Quebec District.

Brig. L. F. Trudeau succeeds him in the latter post.



**Flight Sergeant Ian MacAllum** broke a habit and won a prize.

He's an instrument technician at the RCAF's Air Weapons Unit at Decimomannu, Sardinia, who spends his duty time servicing intricate computers in the CF-104 aircraft that are flown there for training exercises. Off duty, in summer, he roams the island with pastels and a sketch book. The sketches he makes are put away until the cold Mediterranean winter sets in. Then his off-duty time is spent transforming the sketches into

warm and glowing oil paintings in his home in Cagliari's Poetto district.

That's what usually happens.

The break in the habit was made this year when, instead of filing away a sketch of Alghero, a west-coast Sardinian harbour, he entered it in the Air Division's annual art contest. It won first prize.

Now, however, the sketch will have to be done over again before FS MacAllum returns to Canada next March. On receipt of his art contest prize he gave the sketch to retiring **A/V/M D. A. R. Bradshaw**, former Air Officer Commanding the Air Division.



The superbly crafted skirl of pipes enchanted over 200 people at Ottawa in mid-August when **Pipe Major (WOI) John A. MacLellan**, MBE, Chief Instructor at the Army School of Piping, Edinburgh Castle, gave a recital and lecture on the Great Highland Bagpipe and its music.

Pipe Major MacLellan was at CFB Rockcliffe during a Canadian tour and attracted pipers and piping enthusiasts from several Ontario points. He gave similar recitals at Toronto, Hamilton and Montreal, and also adjudicated at some of the Highland Games in Ontario, including the North American Championships at Maxville.

Pipe Major MacLellan is the senior Pipe Major in the British Army. He is also world-renowned as one of the foremost authorities on the Great Highland Bagpipe and has won every major piping

award in competition.

He began playing pipes before he was eight years old, and in 1936 joined the Cameron Highlanders. He transferred to 1st Battalion Seaforth Highlanders as Pipe Major in 1941, leaving that post in 1953 when he went to duty in the battalion and became Regimental Sergeant Major. Thereafter he became Pipe Major and Chief Instructor at the Army School of Piping where he held his first course in 1959.

All pipers in the British Army who aspire to be Pipe Majors must first undergo the eight-month course at the Castle and obtain a Certificate. The School is a branch of the Royal Military School of Music, Kneller Hall.

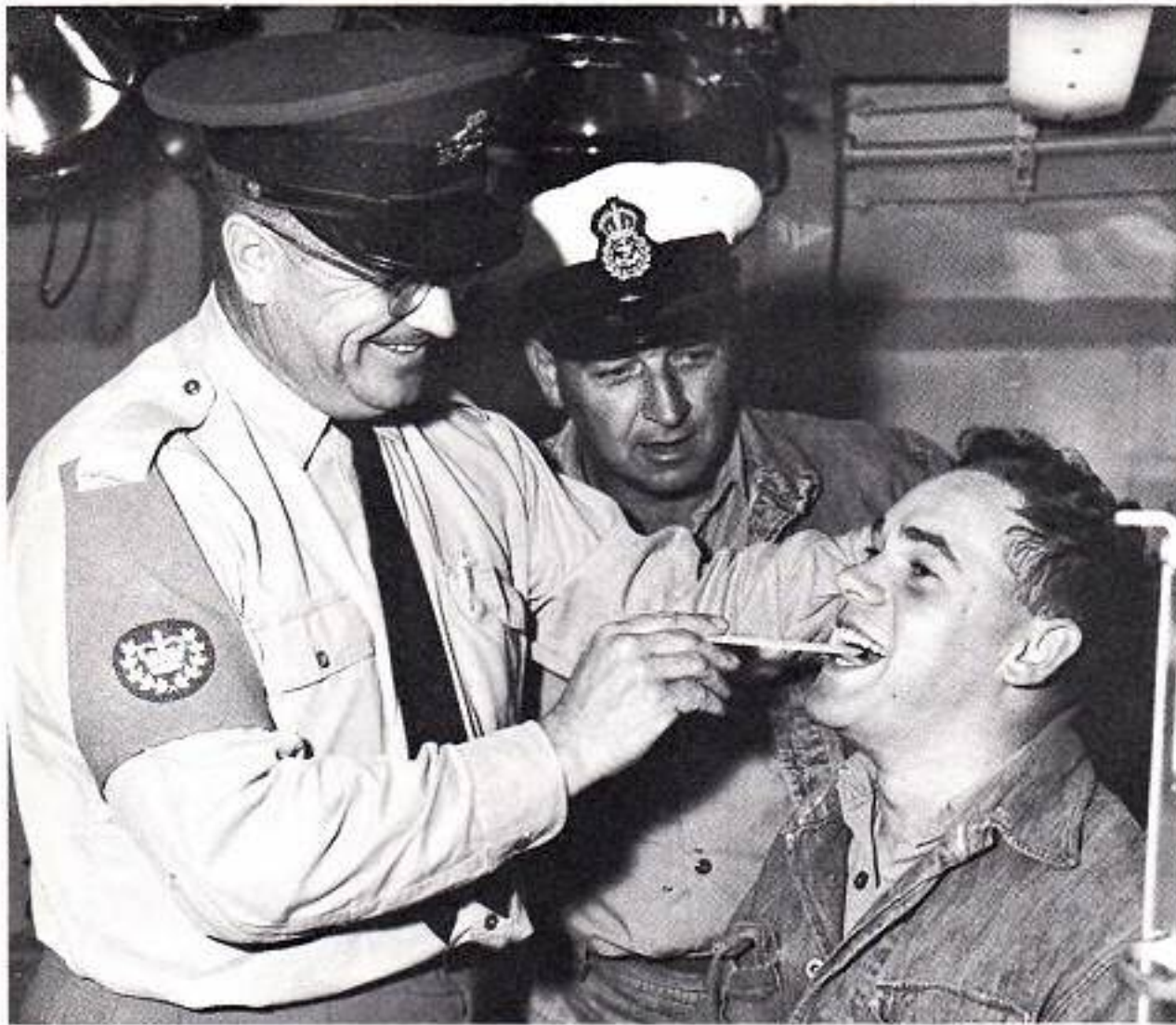
To date, three Canadians have attended the course. They are Pipe Majors W. Gilmour, 2nd Battalion, Black Watch (Royal Highland Regiment) of Canada; A. M. Cairns, RCAF, CFB Rockcliffe, and formerly Pipe Major, 2nd Battalion, Canadian Guards; and W. Stirling, 2nd Battalion, Canadian Guards.



Four brothers get together in August for their first visit in 17 years to Saskatoon; their father was with them to share in the event.

They were hockey's super star **Gordie Howe** and brothers **S/Sgt. Vernon**, CFB Kingston; **PO Norman**, CFB Stadacona; and **Victor** of Moncton, N.B. Father Ab was there to meet each of them when they arrived to celebrate Saskatoon's "Gordie Howe Day".





WO Dwyer and friends  
Say Argh!



G/C Baudoux and A/V/M Case  
Still anti-submarine

✱ ✱ ✱  
Warrant Officer Charles Dwyer was completely at sea with his work for a time in September.

He is at present a medical instructor at the fleet school, CFB Esquimalt, but varied his duties with a week-long jaunt in the destroyer-escort HMCS *Qu'appelle* as the ship's medical assistant.

Somewhere at sea, one of his duties was diagnosing a sore throat belonging to AB Ian Stewart while CPO Servin Diebold hovered around like a sidewalk superintendent.

✱ ✱ ✱  
Lance Corporal Douglas J. O'Connell, Royal Canadian Regiment, has been awarded the Queen's Commendation for Brave Conduct.

The events concerned with the award began shortly before 1 a.m., Sunday, 3 April 1966, at Fort Victoria, Werl, Germany. As L/Cpl. O'Connell and three companions entered the main gate a man armed with a rifle fired two shots in their direction, forcing them to take cover. Then the man disappeared.

L/Cpl. O'Connell and his companions were unable to find the man during a subsequent search, after which O'Connell left and went to the guardroom to warn duty personnel. As he turned the corner of the guardroom he spotted the man who in turn told L/Cpl. O'Connell that he was going to kill him. His rifle failed to fire, however, and the man turned to run. L/Cpl. O'Connell tackled

him and, with the aid of another soldier, disarmed him.

"By this act of courage and selflessness," says the citation, "made with the full knowledge of the danger to himself and possibly others, Lance Corporal O'Connell prevented what could have become a most tragic incident."

✱ ✱ ✱  
Captain Robert H. Falls, RCN, will take command of the aircraft carrier HMCS *Bonaventure* this October. He is at present the commandant, Canadian Forces Maritime Warfare School, at Halifax.

Capt. Falls succeeds Commodore Harry Porter who has been appointed director-general maritime forces at CFHQ.

✱ ✱ ✱  
Lieutenant Commander Maurice Tate, RCN, in September succeeded Lt-Cdr. John Rodocanachi as commanding officer of the Esquimalt-based training submarine *Grilse*.

Lt-Cdr. Tate was formerly the executive officer of the *Grilse* and had just completed an extensive submarine command course with the RN in England.

Lt-Cdr. Rodocanachi has been appointed CO of the submarine HMCS *Ojibwa*, attached to Maritime Command in Halifax.

✱ ✱ ✱  
Two officers who commanded RAF anti-submarine squadrons flying *Catalina* and *Hudson* aircraft out of Gibraltar

during the Second World War met again this September at CFB Greenwood, N.S.

The two are Group Captain E. L. Baudoux, RCAF, Base Commander CFB Greenwood; and Air Vice-Marshal A. A. Case, RAF, Senior Air Services Officer, RAF Coastal Command. In 1942 G/C Baudoux commanded No. 233 (RAF) Squadron, and A/V/M Case, No. 202 (RAF) Squadron, both based at Gibraltar.

The reunion and brief visit between two wartime friends occurred when A/V/M Case stopped at Greenwood while on his way via an RAF *Shackleton* aircraft to attend a NATO Symposium at Norfolk, Virginia.

✱ ✱ ✱  
PO Cadet Wayne Phillips of RCSCC *Vanguard*, Toronto, weathered tough opposition at the Fleet School, CFB Shearwater, before being selected as "Best Sea Cadet".

The opposition consisted of 29 other cadets selected from across Canada; all taking a seven-week Naval Aviation Fundamentals Course broken into six phases and encompassing over ten subjects. Added to the course were field trips, familiarization flights in *Tracker* aircraft and naval helicopters, a sports program, and tours of historic interest in Halifax.

When the course was completed, PO Phillips received the "Best Sea Cadet" trophy from Lt-Cdr. Peter Poole-Warren, RCN, officer-in-charge, Groundcrew Division, CFB Shearwater.



# PROMOTIONS

The Chief of Personnel has been pleased to announce the following promotions for the month of August.

## NAVY

### Chief Petty Officer

#### 1st Class

H. J. Lawrence  
G. J. Roemer  
J. A. Ross  
G. Soucy  
B. T. Tobin

### Chief Petty Officer 2nd Class

G. W. Carroll  
C. A. Chafe  
E. V. Dalton  
M. E. Hamilton  
R. C. Hawkey  
F. A. McGlade  
F. A. Noseworthy  
B. W. Price  
B. Rioux  
J. J. St Onge  
R. W. Taylor  
A. W. Turpin

V. N. Umphrey  
R. E. Walker

### Petty Officer 1st Class

J. J. Adams  
C. F. Armstrong  
N. J. Beauvais  
J. R. Bennett  
R. B. Bentley  
N. J. Byers  
W. J. Cassidy  
C. Chamberlain  
F. M. Coady  
R. O. Cook  
D. J. Doyle  
J. R. Elton  
M. V. Evans  
R. Gavin  
W. J. Knox  
A. G. Low  
F. J. Power  
C. D. Snelgrove  
R. V. Weekes

### Petty Officer 2nd Class

L. J. Babineau  
J. D. Berry  
E. M. Billington  
J. P. Boutin  
W. A. Brade  
G. R. Burton  
R. D. Conroy  
M. R. Cottendon  
G. G. Crawford  
R. J. Daley  
A. F. Davis  
D. D. Enders  
J. M. Fairley  
P. J. Frénette  
J. B. Garbet  
J. M. Grigg  
W. D. Hill  
H. Kaden  
W. A. Losier  
G. W. MacGillivray  
F. Pielak  
D. M. Roberts

G. D. Rutherford  
A. M. Scribbans  
D. G. Sheward  
R. H. Torris  
G. D. Walker

### Leading Seaman

R. C. Angus  
D. R. Armstrong  
R. W. Brown  
B. L. Cameron  
R. A. Campeau  
L. M. Cochran  
D. L. Cowen  
R. P. Dennis  
D. R. Edgar  
K. H. Ellwanger  
D. I. Evans  
C. C. Fletcher  
E. E. Hadcock  
D. D. Harder  
H. L. Harker  
T. G. Havlik  
L. Horton

Y. J. Jacques  
R. W. Johnson  
R. V. Kyte  
M. O. Lefrenière  
B. W. Lamarre  
M. R. Lantz  
J. E. Lawrence  
W. J. MacMillan  
Y. J. Michaud  
R. Morrison  
D. G. Parkinson  
W. D. Patterson  
H. Podwysoki  
P. D. Semyroz  
C. W. Shaner  
D. R. Shearer  
G. E. Stew  
D. G. Studds  
E. A. Teague  
E. J. Turcotte  
G. J. Westlake  
D. L. Whitesell  
L. R. Young  
R. J. Young

## ARMY

### Warrant Officer Class 1

C. Arkinstall  
L. Boudreau  
A. Danyleyko  
A. Doucette  
R. J. King  
J. Lang  
J. P. Lapierre  
J. E. Stone

### Acting Warrant Officer Class 1

C. Arkinstall  
K. Byson

### Warrant Officer Class 2

F. T. Allen  
W. G. Barnes  
E. F. Carter  
C. E. Clayton  
W. A. Collier  
D. C. Coyle  
L. A. Dubois  
D. M. Falconer  
B. C. Godsoe  
V. E. Gomes  
F. C. Gordon  
O. D. Gormley  
E. Gratton  
J. A. S. Haley  
J. H. Hearn  
B. Holligan  
J. C. Kelley  
S. M. J. Lacelle  
E. J. Leech  
S. Lemay  
E. J. Martin

V. G. McAdam  
K. G. McCarthy  
L. A. Naves  
C. A. Neilson  
E. Noonan  
W. H. Oshier  
R. Piché  
A. Proulx  
M. A. Reid  
W. F. C. Rostetter  
L. Schacher  
E. D. Scott  
G. C. Scott  
R. R. Semple  
C. E. Smith  
O. A. A. Smith  
I. W. Sutherland  
J. W. Thompson  
A. G. Turner  
E. L. Werry  
K. G. Young

### Acting Warrant Officer Class 2

A. Beaudin  
N. B. Carlson  
J. A. H. Couillard  
J. H. Hearn  
K. G. McCarthy  
J. N. Messier

### Staff Sergeant

A. A. Allen  
P. A. Antonietti  
W. E. Brooks  
B. Chabot  
W. G. Davis  
W. B. Deschamps  
H. A. Deslippe  
L. E. Driscoll  
R. A. Edmiston

E. J. Essiambre  
V. M. Furnanding  
J. L. Gallant  
J. A. Goatcher  
M. Groulx  
R. G. Haggart  
H. C. Hardeman  
C. Henderson  
J. B. Ivimey  
D. C. Jones  
H. A. Jones  
F. Lacasse  
D. M. Lay  
L. W. Lee  
M. Leronowich  
J. A. Lister  
A. G. Lowe  
J. R. MacLeod  
P. A. Marleau  
J. R. Marshall  
T. R. McDonald



W. A. McDonald  
 W. B. McSloy  
 K. W. Mikula  
 J. A. G. Montreuil  
 B. Morency  
 J. W. Murray  
 D. L. Nutley  
 L. E. Ogden  
 D. W. Palmer  
 A. J. Perrault  
 J. W. Prentice  
 L. R. J. Pynn  
 F. E. A. Rashley  
 J. E. Rattray  
 L. Robinson  
 A. D. Scott  
 J. L. Seguin  
 J. J. A. Smith  
 C. A. Sweet  
 N. E. Thomson  
 L. D. Urquhart  
 J. K. Watts  
 J. H. R. White  
 E. B. Yard  
 L. A. Wiens  
 D. H. Willar  
 R. B. Williams

**Acting Staff Sergeant**

F. H. Buxton  
 A. Clarke  
 W. E. McKenzie  
 J. W. Murray  
 V. W. Murray  
 L. H. Slade

**Sergeant**

G. A. Akerley  
 B. Astles  
 P. P. Balena  
 W. L. Batchelar  
 J. P. Bernier  
 J. P. Blanchet  
 I. G. Brommit  
 C. E. Buck  
 W. R. Cade  
 D. G. Carter  
 F. A. Casey  
 L. P. Chiasson  
 J. R. Courtemanche  
 D. R. Cunningham  
 D. K. Douglas  
 A. B. Dryland  
 A. C. Ernst  
 R. D. Halfkenny  
 R. B. Halfpenny  
 W. A. Hartlin  
 W. E. Hartling  
 F. Hawes  
 G. Hawkes  
 R. Hoddinott  
 K. G. B. Holstead

S. N. Johnson  
 R. M. L. Jones  
 R. E. Jordan  
 W. L. Kelly  
 D. P. Kemp  
 A. J. Kimber  
 A. R. J. Leblanc  
 E. Luciok  
 J. R. MacKenzie  
 J. L. F. Maurice  
 F. E. McCulley  
 T. M. McLean  
 L. S. McNally  
 R. A. Moniquet  
 T. B. Morrice  
 E. E. Ness  
 W. R. Noble

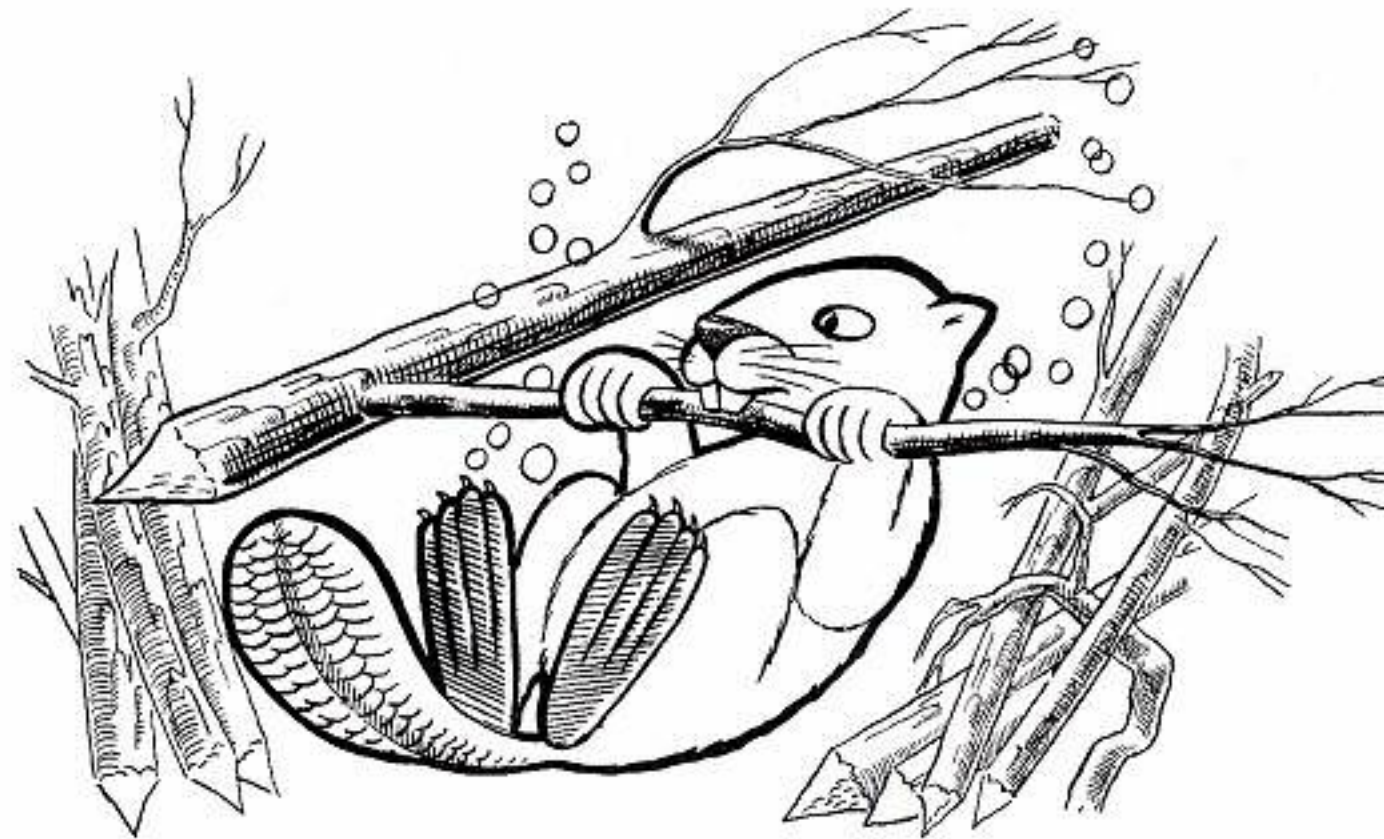
R. M. Burns  
 H. K. Callander  
 W. J. C. Chase  
 G. P. Coe  
 R. W. Coughlin  
 R. W. Crane  
 R. Denham  
 R. J. L. Despard  
 J. L. Doward  
 J. D. Dumont  
 H. R. Edwardson  
 R. D. Fraser  
 G. A. Gray  
 T. H. Hamilton  
 R. R. Hubley  
 A. J. Huck  
 J. E. Loyer

A. A. Hlushak  
 D. W. Hunter  
 H. A. LaBrash  
 D. C. MacAulay  
 A. MacKinnon  
 R. R. Mitchelitis  
 J. L. Seward  
 J. T. Slade  
 E. L. Sillito  
 R. G. Staples

**Acting Corporal**

K. A. Allen  
 H. H. Armstrong  
 E. J. Babin  
 G. A. H. Babuik  
 E. Barton

C. F. Farmer  
 D. Forsyth  
 G. M. Fox  
 D. C. Fraser  
 R. L. Gallant  
 B. Gargus  
 S. S. George  
 J. N. Y. Germain  
 G. C. Gilbert  
 J. D. Gillis  
 J. B. S. Gosselin  
 R. V. Greenwood  
 K. T. Grills  
 D. Haggett  
 J. T. Hannigan  
 E. J. Hart  
 R. M. Hebert  
 J. E. Higginson  
 G. G. Hildebrant  
 C. F. S. Leitrim  
 V. K. Hollywood  
 I. Ihasz  
 R. S. Joyce  
 K. D. Kabel  
 L. T. S. Kane  
 M. Konishi  
 N. R. Ladouceur  
 C. Letourneau  
 J. E. Lewis  
 D. F. MacDonald  
 W. E. MacLeod  
 N. D. McCavour  
 J. J. McManus  
 W. L. McNaughton  
 M. J. McGillicky



O. B. Patterson  
 J. V. Pelletier  
 J. E. Preston  
 R. A. Purvis  
 L. G. Rasch  
 K. M. Reid  
 E. F. Roberts  
 J. H. St Amant  
 A. E. Shannon  
 T. W. Stack  
 W. L. Storeshan  
 W. H. Storms  
 J. J. L. Thomas  
 J. H. Thomson  
 A. L. Tompkins  
 A. E. Tribble  
 R. S. Weild  
 D. E. Williams  
 D. C. M. Winchester

**Acting Sergeant**

C. G. L. Addison  
 J. A. Bain  
 K. R. Beeds  
 C. Bonner  
 J. E. Boudreau  
 O. A. Brodie

G. F. Lutes  
 C. A. MacDonald  
 J. R. Mahoney  
 E. Mandryk  
 E. C. McBain  
 G. McCord  
 A. N. McLeod  
 J. A. Murphy  
 R. F. O'Quinn  
 A. A. Otto  
 J. M. R. Ouellette  
 H. E. Paget  
 J. D. Perry  
 J. A. Sands  
 R. H. Sharpe  
 J. A. Seman  
 P. Shaver  
 G. W. Watson  
 G. R. Westerhof

**Corporal**

J. L. D. Bélanger  
 F. R. Beerlin  
 R. Carrick  
 A. Ciciola  
 M. J. J. Colette  
 E. J. Forestall

W. J. Beales  
 G. D. Beatteay  
 J. C. R. Bélanger  
 S. C. Bennett  
 J. L. Bilodeau  
 R. C. Bryson  
 S. A. Brace  
 J. K. Brando  
 R. E. Butler  
 J. B. Cadman  
 D. F. Cameron  
 J. Clark  
 S. R. Clarke  
 D. A. Cocks  
 G. H. Coleman  
 P. W. Dabb  
 L. G. Demolitor  
 J. T. Dillon  
 G. M. Doiron  
 L. M. Doherty  
 B. R. Donker  
 G. Dorrington  
 T. M. Dorward  
 J. H. Duquette  
 D. W. J. Duermeyer  
 G. E. Edgell  
 P. L. J. Esterbrook

A. R. Mick  
 B. G. Morris  
 J. H. Muise  
 J. H. Nickerson  
 E. G. Parmiter  
 B. J. Patterson  
 G. A. Patterson  
 J. G. Pelletier  
 O. Pelletier  
 J. E. Pillon  
 J. R. B. Pyneo  
 M. C. Ritchie  
 E. G. Robbins  
 D. W. Robinson  
 F. W. Ryan  
 D. L. Sallans  
 R. P. Scott  
 M. O. Shepperd  
 B. F. Simpson  
 R. G. Smith  
 I. L. Steaves  
 G. O. Steenburgh  
 W. A. Stinson  
 N. H. J. Strong  
 D. E. Walsh  
 D. R. Walton  
 L. P. Williams



# AIR FORCE

## Warrant Officer

### Class 1

A. E. Bourque  
E. M. Clark  
A. G. G. Couillard  
J. A. Jolley  
J. A. McCullough  
F. A. McGuire

## Warrant Officer

### Class 2

R. A. Butler  
R. M. Collier  
B. M. Coulas  
J. W. Dagert  
C. W. Degruchy  
W. D. Ellis  
J. E. A. Germain  
D. B. Guile  
A. J. Hymers  
O. E. Johnson  
E. F. Middler  
D. I. Mitchell  
C. R. Nasmyth  
J. E. O'Leary  
L. E. Phillips  
D. J. Ross  
S. H. Young

## Flight Sergeant

E. M. Aalders  
F. M. Atkinson  
M. W. Aumais  
F. H. Ayton  
C. A. Balesdent  
L. E. Baxter  
J. R. C. Boutin  
R. J. Bowers  
J. E. Braithwaite  
J. J. M. Casey  
R. S. Clements  
J. O. L. Dery  
J. T. Donak  
D. S. Drew  
J. P. Driedger  
T. E. Duncan  
L. R. Ferrier  
D. D. Green  
E. Harder  
A. C. Irwin  
E. E. Ison  
R. W. Kemp  
C. R. Laing  
S. Lesyk  
W. J. J. Long  
A. G. Lowry

J. R. C. Massé  
N. B. Matheson  
A. W. McDougall  
J. L. McKenna  
W. McKinlay  
F. D. Moon  
J. A. Shaer  
G. A. Tasker  
E. E. M. Walford  
D. C. Webber  
S. T. Wilson  
R. Wolski

## Acting

### Flight Sergeant

J. L. Provost

## Sergeant

R. A. Anderson  
J. F. W. Baldwin  
K. B. Baldwin  
J. Barratt  
E. A. Belliveau  
J. P. J. Bessette  
J. D. Brown  
T. O. Brown  
G. M. Buckingham  
D. M. Campbell  
W. D. Coffill  
A. V. Dalton  
J. I. Daly  
R. J. Desorcy  
F. G. Doonan  
W. A. English  
L. E. Fitzsimmons  
B. H. Gay  
J. D. Godin  
R. K. Hall  
W. L. Hanishewski  
L. H. Hedden  
F. W. Hersey  
P. Humenick  
W. F. Judge  
R. J. Kilpatrick  
J. E. J. Landry  
J. J. LaPlante  
J. G. Lortie  
J. H. MacDonald  
J. O. MacKinnon  
J. A. MacNeil  
H. B. Martin  
W. E. Martin  
R. E. Matthews  
J. B. Mattinson  
A. W. McLean  
J. E. D. McNeil  
N. E. Mercer  
J. A. Merkley  
J. W. Moore  
W. M. Morris  
A. L. Munro  
J. L. G. Nobert  
S. H. Nyitray

W. H. Olive  
A. A. Pageot  
H. M. Parker  
J. C. Paynter  
K. R. Porter  
C. W. Putman  
A. C. Quartermain  
A. G. Rankin  
G. A. Redfren  
G. M. Reitmeier  
J. C. Richards  
J. G. Robitaille  
W. D. Scholey  
J. Schwab  
I. W. Scott  
J. P. Scroggins  
G. W. Searle  
J. E. P. Sigouin  
B. E. F. Spencer  
G. W. Stewart  
V. Strickland  
J. K. Terrio  
J. M. D. Tessier  
S. G. Thompson  
B. C. Thomson  
J. P. Thornton  
W. C. Tiglmann  
J. F. R. Vachon  
J. C. Vanduyvenvoorde  
J. W. Walker  
W. F. White  
E. E. Wilson

## Acting Sergeant

J. H. Y. Charron  
J. J. Commerford

## Corporal

J. E. J. Allard  
J. C. Anderson  
S. Anderson  
D. D. Andres  
B. L. P. Avery  
J. A. M. Beaudry  
J. A. A. Bélanger  
S. J. Bennett  
J. Y. G. Blanchard  
D. F. Blizzard  
V. L. Borton  
J. J. R. Boucher  
J. J. C. Bourget  
Y. G. Brillant  
H. C. Brown  
D. F. Byrne  
B. E. Burke  
Y. P. L. Callarec  
K. A. Carroll  
R. J. Carscadden  
W. A. J. Chambers  
J. H. Chandler  
J. G. Chiasson  
F. R. A. Clackson

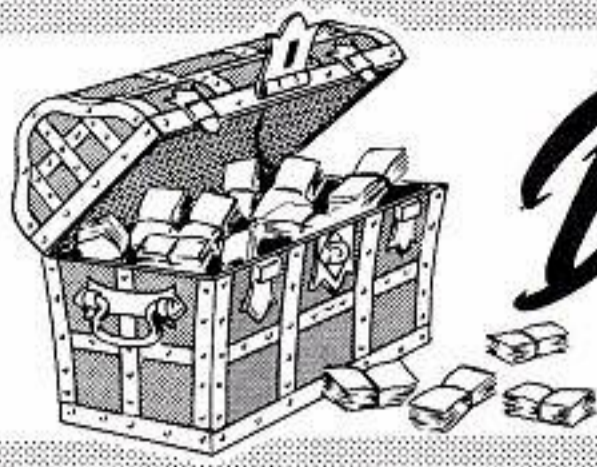
D. A. Collier  
D. G. Colmer  
W. A. Cromarty  
J. R. G. Cyr  
G. W. Dawson  
E. L. Downey  
W. Edgar  
J. C. Elliott  
P. M. Emond  
J. M. R. Ethier  
W. G. Fahlman  
W. C. Farnum  
R. Farrier  
G. Faulkner  
R. A. Fehr  
D. G. Fenwick  
W. L. Gadd  
J. J. M. Gagnon  
J. W. Galliah  
C. A. Gallison  
J. R. G. Gamache  
J. I. Gates  
J. J. E. Gaudet  
J. W. Guignard  
C. Grant  
M. S. Haley  
G. D. Hall  
K. S. Hammons  
R. A. Hay  
S. D. Hay  
E. A. Hodgins  
J. E. H. Hunter  
A. F. Ingram  
A. F. Ireland  
R. L. Ireland  
A. F. Jamieson  
J. D. Jarvis  
C. L. Jebb  
J. P. Z. Joly  
J. L. M. Joncas  
G. B. Jones  
W. R. Jones  
G. H. Katterhagen  
E. S. Knock  
H. Koldyk  
R. J. Kuta  
J. L. M. Laflèche  
L. H. Lamarche  
J. P. G. Landry  
J. F. R. Lavallée  
F. R. Lewis  
J. P. T. Lewis  
J. P. Lydiard  
A. S. Mackey  
D. S. MacLeod  
C. T. Martin  
J. H. McCagg  
J. W. McCallum  
D. C. McConnell  
W. P. McCreadie  
B. P. Megee

J. J. M. Meilleur  
R. R. Meisner  
W. J. A. Miron  
G. R. Mooers  
B. T. Murphy  
G. W. Murray  
L. E. Nicholson  
J. R. O'Keefe  
W. J. C. Ouellette  
J. G. Pare  
R. Patey  
J. J. Patterson  
P. J. Plitnikos  
M. Pobran  
J. M. A. Quinn  
R. D. Reader  
R. L. Richardson  
R. K. Robson  
E. G. J. Rodgers  
E. J. Roger  
W. B. Ross  
W. M. Ross  
T. Rosychuk  
G. Ryall  
M. G. Schmid  
A. B. Severn  
W. Servatiak  
D. P. Seymour  
M. Shamachuk  
E. L. Smith  
R. E. Stinson  
P. A. Sunderland  
G. F. Swain  
K. P. Swift  
J. Tanguay  
J. C. R. Thompson  
N. V. Traversy  
E. E. Turnbull  
J. C. A. Vallée  
M. J. L. Venasse  
J. A. A. Voisard  
R. T. Waddington  
B. R. Walden  
B. J. Warne  
G. L. Webb  
H. G. Webb  
A. D. Webber  
D. J. Weir  
J. F. Williamson  
M. H. Wilson  
J. L. Wood  
E. A. Woodward  
E. Zahariuk

## Acting Corporal

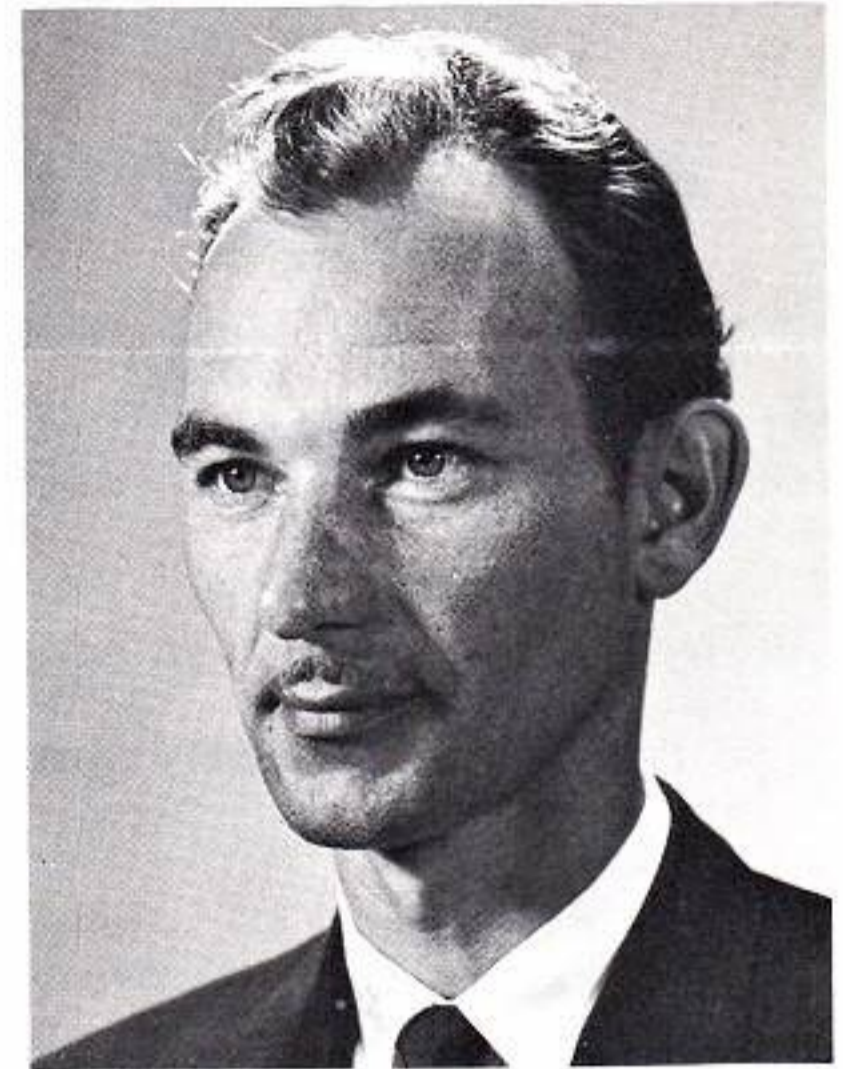
H. M. Baker  
J. A. P. MacDonald  
G. S. Notting  
A. E. Seeley  
H. J. Seward  
L. F. Stangl  
C. E. Stevens





# Dollars for Sense

The following persons have received awards from the Department of National Defence, for suggestions which have been officially adopted. The number in the brackets indicates the number of suggestion awards won by the individual. Photographs of winners of \$100 or over appear at the right. Proper procedure for submitting suggestions is detailed in CFAO 99-2.



**MR. G. R. NADEAU**



**SGT. G. T. HALL**



**LAC W. K. ADAMS**



**WO2 J. W. OAK**

## NAVY

CPO P. J. Thompson  
PO C. A. Vales  
PO C. S. Tory  
PO J. N. Paddon  
PO R. J. McCall  
LS D. J. Brights  
LS C. M. McCalman

## ARMY

Sgt. M. A. O. Brodsky  
Cpl. G. E. Arnold  
Cfn. J. A. R. P. Colbon

## RCAF

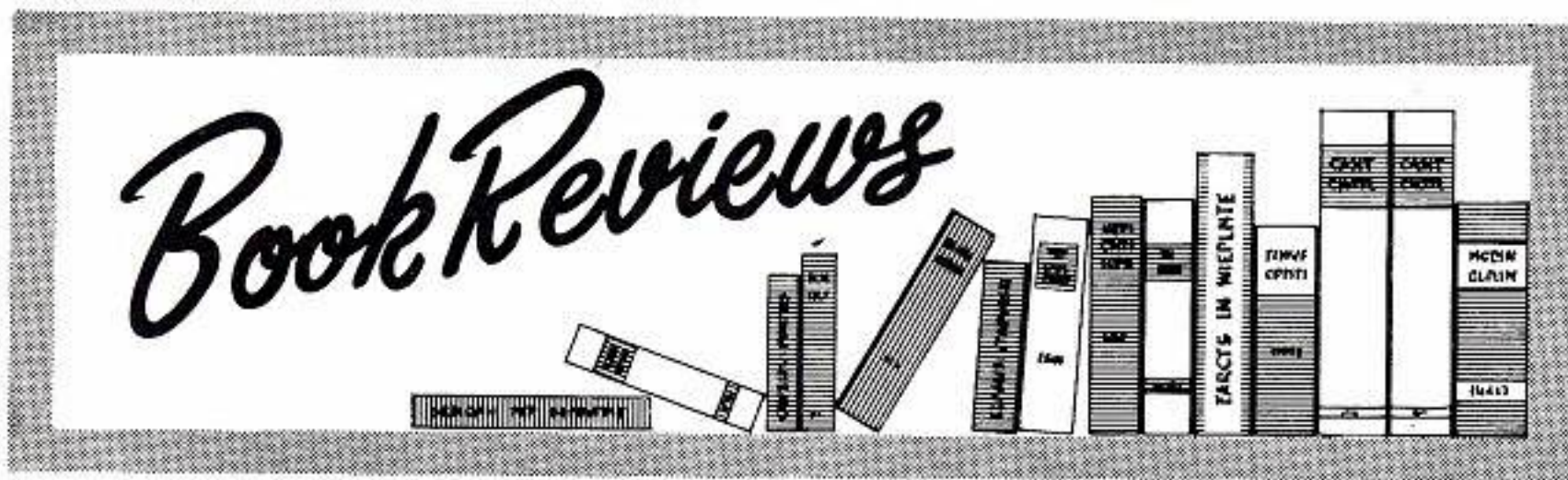
F/L G. A. Cragg

WO1 G. C. Hacking  
WO1 H. C. Cable  
FS S. M. Jarvis  
FS H. S. McGuirl (2)  
Sgt. E. A. Auger  
Sgt. J. Wallace  
Sgt. J. C. Bessey  
Sgt. R. T. Lundahl  
Sgt. C. H. Hall  
Sgt. R. V. Laroche  
Sgt. F. J. P. Cote  
Sgt. G. B. Delaine  
Sgt. S. L. Walker  
Sgt. J. R. G. Dinelle  
Sgt. J. P. G. Dufresne

Sgt. J. R. Kling  
Sgt. G. R. G. Lefebvre  
Cpl. R. E. Robertson  
Cpl. G. J. Crocker  
Cpl. J. Rempel  
Cpl. J. M. Sanfacon  
Cpl. F. X. Lapratte  
Cpl. V. Laughlin  
Cpl. N. S. Nash  
Cpl. A. C. Pullan  
LAC J. M. Plamondon  
LAC H. J. Ayres  
LAC J. W. A. St. Amant  
LAC R. B. Simcoe  
LAC L. R. Breitschmid

LAC D. M. Duthie  
LAC W. J. Kujbida  
LAC C. S. Shutron  
LAC B. M. MacLeod  
LAC E. Tomchuk  
LAC J. F. Doxtater  
**CIVILIANS**  
Mr. W. H. Falconer  
Mr. W. Kelvey  
Mr. F. E. Kenney  
Mr. F. H. Perkins  
Mr. R. W. Palmer  
Mr. H. E. Pearce  
Mr. G. E. White  
Mr. J. A. Woodfield





### SPECIAL SERVICE

*The Devil's Brigade* by Robert H. Adleman and Colonel George Walton. Chilton Books, Philadelphia; published in Canada by Ambassador Books, Ltd., Toronto. 266 pp., illus. \$6.75.

This is the story of the US-Canadian First Special Service Force, told largely in the words of former members. A more conventional history of the Force, which this book supplements, was published by Infantry Journal Press, Washington, in 1947. It was called *The First Special Service Force: A War History of the North Americans 1942-1944* by Lt.-Col. Robert D. Burhans.

The First Special Service Force, formed in 1942, consisted of three parachute regiments, each of two battalions, and a service battalion. It was roughly three-quarters American; the Canadians, numbering some 500, were distributed among all three regiments. All wore American uniforms and badges of rank.

The force took part in two amphibious operations — the unopposed Kiska landings of August 1943 and the invasion of southern France a year later. In ground operations in Italy and southern France it fought as infantry; thus its parachute and other special training was largely wasted. "Viewed pragmatically," Mr. Adleman and Colonel Walton concede, "the military experiment known as the First Special Service Force was a complete failure." On the other hand, the force fought splendidly in the limited roles imposed on it and was a successful experiment in Canadian-American relations. Its binational character recalls the attachment of American airmen to British squadrons in the First World War and served as a precedent for the headquarters and certain units of the Commonwealth division in Korea.

— Capt. F. R. McGuire.

### CRETE 1941

*The Struggle for Crete: A Story of Lost Opportunity* by I. McD. G. Stewart. Published by the Oxford University Press,

London, New York and Toronto. 518 pp., 28 maps and 21 illustrations. Approx. \$10.

"The Island of Legend" is the first of four parts into which the author divides his book. But he wastes no time on legend and gets right down to the background leading up to what happened on Crete in May and June 1941.

*The Struggle for Crete* is well documented from British, New Zealand, Australian, Greek and German sources and is packed with quotations by eye-witnesses at all levels. Some of the pictures are not very clear, nor is it easy to determine the two orders of battle. But undoubtedly things were not very clear at the time of the battle.

The epilogue chapter is well worth reading for its summary and conclusions. Many examples of individual initiative and determined leadership at the lower levels on both sides are given. Two outstanding lessons for us today are the need for good communications and what can be done by small and isolated groups under determined leadership.

Though the struggle on Crete was mainly fought by soldiers the essential support of air and sea forces is well covered. Similarly the tremendous difficulties caused by lack of air support by the Allies is well brought out. It is also stated that this was probably the last mass use of airborne troops as an invading force. As he describes the tide of battle, the author leaves one in no doubt that either side might have won. — Col. M. C. Sutherland-Brown.

### HOVERCRAFT

*Aeromarine Origins*: McClelland & Stewart Ltd., 25 Hollinger Rd., Toronto 16, Ont. \$3.90

"I nail the British flag to the masthead of this chapter (on hydrofoil boats) by expressing the plain belief that a boat was first lifted out of the water by means of hydrofoil surfaces on an English canal in 1861."

Hydrofoils and hovercraft being all the rage these days, it's nice to be reminded that there's nothing new under the sun. H. F. King, MBE, former editor of "Flight International" and "Air Cushion Vehicles" has written a slender book published this year and sub-titled "The Beginnings of Marine Aircraft, Winged Hulls, Air-Cushion and Air-Lubricated Craft, Planning Boats and Hydrofoils". It costs 30 bob.

The flyleaf states "Most of the photographs and drawings in this volume are unique. Many have never before been published and the illustrations within these pages must be regarded as collector's items." It also says "the story told is unknown even to many of those who have spent their lives in aviation".

Mr. King's researches are international but if there's an Englishman in the woodpile, he finds him. The book "deals with nothing later than 1914" and the only mention of the efforts of Dr. Alexander Graham Bell is of his tetrahedral kite launched from a lake in 1907. Dr. Bell and F. W. (Casey) Baldwin in 1911 began hydrofoil experiments on the Bras d'Or lakes of Cape Breton Island and their RD4 in 1919 established a world speed record of 61.5 knots which stood for more than 30 years. Too bad it had to be left out.

The RCN's fast hydrofoil escort which will be completed late this year will be named Bras d'Or to continue this historic association. The scientists, members of the aviation and marine industries, and the naval personnel associated with the Canadian hydrofoil project at least will find Mr. King's book stuffy but a useful reference work. It has 88 pages plus index.

— Lt.-Cdr. H. C. Wallace

### WATER BIRDS

*British Flying-Boats and Amphibians 1909-1952* by G. R. Duval Published by McClelland and Stewart Ltd., 25 Hollinger Rd., Toronto 16, Ont. Pp 268

This is another of those interesting and accurate books about aircraft in the writing of which the British are unexcelled. It traces the history of British designed flying-boats and their amphibian derivatives from the weird looking Wyvenhoe Flier (1909), which refused to fly, to the powerful ten-engined Saunders-Roe Princess (1952). Over 100 aircraft are described in detail with specifications, three-view drawings and a fine selection



of photographs. The human side of the story is not neglected and the ideas and efforts of the men who led the way in the development of the flying-boat phase of aviation are told with dramatic effect.

Flying-boats played an important part in opening up Canada in the early days of aviation and during the world wars Canadians flew in some of the machines described. The author tells how one of Canada's foremost flying-boat pilots, Captain Robert Leckie (now Air Marshal retired), led a flight of four Porte/Felixstowe F.2A boats against a force of more than ten enemy planes in June 1918 and emerged the victor in a classic air battle that lasted forty minutes. Flyers of the Second World War will enjoy learning anew of the Short S.25 Sunderland, one of the truly great planes of the war, which was flown by Nos. 422 and 423 R.C.A.F. Squadrons with great effect on anti-submarine patrols with Coastal Command.

At home the R.C.A.F. made considerable use of British flying-boats including the Porte/Felixstowe F.3, the Vickers Viking IV and the Supermarine Stranraer. From the Vickers Viking, manufactured in this country under licence, a whole new series of flying-boats designed for Canadian needs was developed. But in Canada, as in Great Britain, the golden age of the flying-boats is past and gone — a fact which enables the author to make his book complete and which casts over it a gentle aura of nostalgia. — *F. J. Hatch*

#### NORTHERN LAB

*Defence Research Northern Laboratory, 1947-1965.* Compiled by A. M. Pennie. Defence Research Board Report No. DR 179

A phenomenon of the post-Second World War period has been the Defence Research Northern Laboratory, Fort Churchill, Manitoba. Spawned by the early concern of the Arctic Warfare Committee, it first grew slowly under immense handicaps, then with quickening pace matured, to pass away in response to changing military needs in 1965. This book is the story of that brief but bright period — not an historical record but rather the reminiscences of 17 of the many men and women who played an active role. The reader will understand, as he progresses through the book, how the laboratory contributed so much, and

why its closing brings a sense of sadness to so many.

The North, of course has a great attraction for many Canadians, not only for those who have experienced it but also for those who have to be content with the printed word. In this book the stage for interest is set by the first chapter, "Churchill and Further North, 1932-1965"; the blend of comment on serious research, history and amusing anecdote is a delight. Subsequent chapters tell



*A. M. Pennie*

more specifically of the trials and tribulations of Fort Churchill and DRNL, each reflecting the author, his reaction to his co-workers and his view of his environment. Literary geniuses perhaps no, but very human yes, these defence research types, and it was that latter attribute, reflected in their stories told here, that "sold" the Armed Services on their work, one suspects.

One may speculate on how so motley (to use the language of the book) a group of individuals could have teamed up so successfully. It seems to your reviewer, who for many years was associated with DRNL and the North, while chief of the Canadian Wildlife Service, that several factors come through very clear. The staff were recruited to no pat standard other than of quality: they came in many sizes, types and interests and so brought diversity of talent. Then there was the challenge of the work, and of the North, that created a common bond and purpose. Finally, DRNL became truly home to those who worked there, and a home

away from home for the more casual or visiting staff. But how could all this have happened, you may say. Read this book, and you will gain a glimpse of understanding. For as one author states ". . . Where else but Churchill would you find an owl flying down the corridor." — *W. Winston Mair, Chief, National Parks Service, Ottawa.*

#### RECCE RECOLLECTIONS

*Sabretache.* The Memorial Journal of the VIII Recce Association. Edited by Lt-Col. C. D. Williams, CD, QC. Foothill Printers Limited, Calgary, Alta. Pp 79. Illustrated.

The prose in this booklet swings along with the lilt of the lyrics to the regimental march "Bonnie Dundee."

In total, it is a delight to read.

Several people contributed to the booklet's compilation. Some are identified by name, others by initials and nicknames. At one point, in explanation, the editor, Lt-Col. C. D. Williams, writes: "None of us who collaborated in this history are professional writers nor did we have access to official records or to the war diary. It has been written from memory almost in its entirety."

That is the source of its excellence. It is not the polished and detailed history of a regiment and its achievements. Instead, it is the writing of soldiers recalling with some saltiness the aspects of war that official histories ignore. All the sensations of warfare are recounted except, as to be expected from veterans, the misery and sadness. The stark reminders of the latter lay with the listed names of the members of the regiment who fell.

The 8th Canadian Reconnaissance Regiment (14th Canadian Hussars) was formed in England in 1941, drawing its early muscle from nearly every unit in the 2nd Canadian Division. As a result, the unit was a mixture of Canadians from every part of Canada. In Canada, recruiting for the 8th Recce was done at Manning Depots in Regina and Saskatoon; and so Saskatchewan, in effect, became the regimental home.

It is too bad, however, that the distribution of this booklet was largely restricted to those of the VIII Recce Association in celebration of the 25th anniversary of the founding of the regiment. Other stories fare similarly, of course; and not by design. Still, it's like keeping a good yarn to oneself. And this is one of that kind. — *J.L.W.*





# Letters to the Editor

## ARMoured CORPS STORY

Dear Sir,

Your story on the Armoured Corps has been brought to my attention and I would like to make a few comments:

The caption under the photo on page 32 which stated, "The six originals", should have read the seven originals since Captain F. E. White, Lord Strathcona's Horse, was on course in England.

In addition, the Other Ranks who were "originals" should be mentioned and they are QMS Ridmond, QMS Philpott, SSM Harris, Sgts. Cave, Hider and LeBlanc, Cpls. Edwards, Viel and Pengelly, L/Cpl. Pratt, Bdr. Reid and L/Bdr. Farmer.

J. H. Larocque, Col. (ret.)  
P.O. Box 285  
Sydney, B.C.

## NIT PICKERS UNION

Dear Sir,

While we here at CFB Comox are avid readers of your splendid magazine, we are also members in good standing of the Nit Pickers Union (an organization world-wide in scope). We must, therefore, bring you to task concerning the article in your June issue entitled, PPCLI Team Wins Maple Leaf March.

The picture at the bottom of page 26 shows a 20-man squad marching in step across a small foot-bridge.

We have always been of the opinion that a marching squad must break step when traversing a bridge to avoid over-stressing the structure. Are we correct?

D. F. Collings, Cpl,  
CFB Comox, B.C.

*(Whether to break step or not while crossing a bridge is at the discretion of the unit commander. Perhaps the right decision was made because we haven't heard of the bridge falling down . . . Editor (A member in good standing in your union))*

## MOORED NOT TIED

Dear Sir:

Re page 13, Sentinel, April 1966, "The submarine Grilse prepares to tie-up alongside an RCN vessel berthed at Trinidad," (HS79835-3). It should be noted, Sir, that naval ships are moored or secured. SHOELACES are tied-up.

M. E. Ibrus, Lt.  
Canadian Army,  
Montreal.

*("Tie-up" is a colloquialism widely used in the RCN. Ships are also berthed, anchored, docked, "buttoned-on" . . . . Editor)*

## INFORMATION REQUESTED

Dear Sir:

I am in the process of gathering material for my book on the HAWKER TYPHOON AND TEMPEST, and am trying to contact former members of 438, 439, 440 (RCAF) Sqd's who may be able to supply information.

It was suggested by Flt/Lt. R. J. Rose of the Canadian Defence Liaison Office in London that I place an appeal in your magazine. I would therefore be very grateful if you could see your way clear to include the following in a future issue.

The type of material I see is as follows:

1. Serial and code letters of squadron machines,
2. Bases of operations,
3. Details of any squadron victories and losses,
4. Any photographs or negatives of these aircraft.

Readers who can forward any bits of gen, large or small, are assured of an acknowledgement and prompt return of any material loaned.

Kenneth R. Sandford  
5 High Street  
Oxbridge, Somerset,  
England.

## TOPPED-UP NOT TOPPED

Dear Sir,

With reference to your article "Twilight for the Tin Lizzies" in the June issue of Sentinel, cakes are "topped", but Her Majesty's Canadian Ships are "topped-up".

H. A. Cooper, Lt.  
CFB Halifax

## WRONG HUSBAND

Dear Sir:

Your July-August issue announcing the winners of this year's Canadian Forces' Art Exhibition identified Mrs. Gwen Simpson, the winner of the amateur division and the "best in the show" awards, as the wife of Wing Commander J. M. Simpson CFHQ.

The winner is my wife. For the sake of our many service friends who may share some of the pleasure that our family experienced over the results, I wonder if you might make an appropriate correction in a future issue.

G. S. Simpson — Ex W/C,  
1198 Castlehill Cr.,  
Ottawa

## BACK ISSUES

Dear Sir:

I have been referred to you by the Queen's Printer in Ottawa in relation to a search I am making for back issues of *The Crowsnest*.

During the years *The Crowsnest* was in print, I managed to save most of the issues and recently decided to bind the magazines in hard-cover volumes with a view to presenting them to a marine museum. Unfortunately, when I mustered my collection I found I was missing several copies: Vol. 2, Nos. 6 and 11, April and Sept. 1950; Vol. 4, No. 11, Sept. 1952; Vol. 6, Nos. 1, 7 and 10, Nov. 1953, May 1954 and Aug. 1954; and Vol. 12, No. 4, February 1960.

I am willing to pay for any costs of advertising for these issues, as well as any charges for the actual books, and will be most grateful to you if you can assist me in this regard.

A. A. Letson, Lt. RCN,  
1717 Sheridan Ave.,  
Victoria, B. C.

*(Perhaps some of our navy readers will be able to supply this correspondent with the issues he needs to complete his volumes. — Editor).*



## CONTACT WANTED

Dear Sir:

The library of Canadian Forces Base Trenton has just acquired several copies of Trenton's war-time CONTACT magazine.

We would solicit the help of your readers in our efforts to complete a collection of all editions since the copies to hand have aroused considerable interest.

B. G. Browning, F/O,  
CFB Trenton

## BARE ESSENTIALS

Dear Sir:

While reading the May edition of the Sentinel, I was very interested in the article by Gerry Grey entitled "Adventure in the Cariboo Country". Upon examining the photos, I noticed in one that the caption read "A camp, with a simple lean-to, is prepared after a long day of hiking through the mountains" while one member of the group holds in his hands, a spirit level. Reading the 8th paragraph (to quote part of it), "Everything that had to be carried was weighed and when the weight limit of 60 pounds was reached everything but the bare essentials was jettisoned." My question is, Is a spirit level a "bare essential" on a trip such as this?

I would also like to take this opportunity to say "Well done" to the editor and staff of the Sentinel for excellent coverage of the Canadian Armed Forces.

Gilbert M. Drynan  
P.O. Box 32 R.C.A.F. Stn.  
Beauséjour, Manitoba.

## FRIEND OF FRIGATES

Dear Sir:

Your June issue has just reached me. The article, "Twilight for the Tin Lizzies" was well intentioned, although not entirely factual. Our fine ships were accorded many titles, but hardly, if ever: "Tin Lizzies". By comparison, the frigates may have "trudged", but by no means were they axiomatically "tag ends of squadrons". These ships demanded the best from maintainers and seamen; and got it.

Finally, as the last seagoing Commanding Officer of *Ste Therese* (DE 309), I regret that probably her last picture to appear in the Sentinel was incorrectly identified.

K. M. Young, Cdr.  
Staff, COMASWFORPAC

## BACK ROUNDELS WANTED

Dear Sir:

I would appreciate it very much if you would publish the following request. As a member of the air cadets, I have procured several issues of the Roundel. These magazines interest me immensely. If anyone is in the process of disposing of them, I would greatly appreciate it if they would send them to me. I would also be pleased to receive issues of the Crowsnest and Army Journal.

Joseph Potter  
2 Elliott St.,  
Sydney Mines, N.S.

## ARCTIC MILK RUN

Dear Sir,

I read with interest the article "Milk Run to the Arctic" in the June issue of Sentinel. It was also of great concern to me to note that the author did not find it necessary to acknowledge the efforts or even the presence of Air Movement Unit personnel on the operation.

Perhaps he felt that these personnel were not affected by the severe cold or did not provide a function worthy of mention when they moved some 85 persons and all the spares and equipment required to carry out the operation from Edmonton to Resolute Bay and later Resolute Bay to Thule and still later Thule back to Edmonton.

I'm afraid this article serves as documentary evidence of the smooth-running wheel not getting any grease. It is high time though that people, who repeatedly take the AMU function for granted, realized that on all major operations the AMU performs alongside the squadron concerned and that they perform a task as essential to the operation as all the others.

K. B. Gibbs, F/L,  
Officer Commanding,  
No. 1 AMU

*(It was an unfortunate oversight that resulted in the omission of No. 1 AMU from our article. As anyone who has ever travelled by ATC aircraft well knows, air movement units are an essential part of each and every airlift. . . . Editor).*

## FRIEND FROM FRISCO

Dear Sir,

Not knowing the administrative structure of the RCN, I am addressing this letter to your office in the hope that you

might pass it on to the proper channel. Last August while listening to a local San Francisco radio station, my wife heard that a Canadian warship was berthed at Treasure Island and would have "open house" Sunday afternoon. Not being particularly enthused at the 30-mile drive from my house, I was nevertheless persuaded by my wife to take the family on an outing.

The ship was the HMCS *Saskatchewan* and I have to write this letter to let someone know what a perfectly enjoyable afternoon my family and I had aboard your ship. The ship was smart-looking and immaculately clean. The officers and men were very courteous and most helpful, certainly beyond what one could expect as I am sure they would have preferred to be ashore in San Francisco than answering silly questions from tourists.

My service was as a physician in the US Army, so my knowledge of a destroyer escort was limited to books and TV. It was therefore very interesting to actually see what I had only read about. Needless to say, my small children were enchanted by the entire affair.

When we got home we looked up the accounts of D-Day and saw the *Saskatchewan's* namesake as one of the three RCN ships in the invasion. This made the trip even more meaningful to us as we felt that we had been close to a part of history. I don't know the official RCN thinking on open house aboard its vessels, but I can assure you that at least one US family felt that it was well worthwhile and we are most impressed by our neighbours to the north.

Again our compliments to Commander Traves and his men of a proud ship.

Francis C. McPartland, M.D.  
San Francisco, USA

*(The above letter was received by the Regional Information Office in HMC Dockyard, Esquimalt, B.C. . . . Editor)*

## CANADIAN AVIATION HISTORY

Dear Sir:

It is my desire to see the story written of the development of civil aviation in Canada, and told from a human interest point of view, setting forth the stories of the hard work, the anecdotes and the adventures which went to make up the image of civil aviation as we know it.

Although aeronautical research was started in Canada as early as 1900, and the first flight in 1909, yet the main de-



velopment of safe air transportation was achieved during the period 1919 to 1939, and it is mainly of that period which I am now doing research.

The aim is to produce a book which will interest all of the public, not only those of the aviation fraternity, a book that might inspire the youth of the country complementing the limited number of excellent volumes of historical data that have already been written.

The collecting of this material is a self-imposed task and the Curator of the National Aviation Museum, Ottawa, has asked that I furnish him a copy of all documentation resulting from this research.

If you contributed to aviation history during those early years then please complete a biographical sketch of your association with civil aviation in Canada and forward it to me to be included in a permanent record of the pioneers of civil aviation in Canada.

Stuart Graham  
c/o 112 Elworthy Ave.,  
London, Ontario.

#### FUNCTIONAL ANOMALY

Dear Sir,

The reorganization of the Canadian Defence Forces is based on the formation of functional commands. The idea of functional commands is to group similar and related functions of the services under specialists, or at least into groups whose main interest will centre on one area of the defence task. It requires no efficiency expert to recognize the advantage to be gained from adopting this plan — increased effectiveness and savings through the combining of affiliated skills, knowledge, accommodation and other resources.

This functional grouping is evident at the level of CFHQ and the commands, but a look at the Canadian Forces Bases makes one wonder what happened there. What are these bases? Integrated? yes; but based on functional activities? not so. Well, what did happen? Control of bases was decided on the reasoning that the major components based on them for support would determine the parent command of the base. The formula for functional allocation of tasks seems to have been inoperative for some reason, when applied to control of bases.

Under the present system, an Air Transport Command base may be res-

ponsible for repair to Canadian Army Militia vehicles, or providing pay services; a Training Command base may be repairing and calibrating radiac instruments, and supplying rations. These are obvious deviations from the concept of functional command, since the responsibilities cited are not related to the functions of the respective commands.

All bases have the responsibility of supporting units allocated to them whatever the parent command of the unit. It is axiomatic that a base need not be controlled by a command having an operational interest in some unit or units supported by the base. Otherwise, every command with units supported by a base should exercise some measure of control over that base and should have representation on the base HQ organization.

Nor does the method of allocating control of bases appear to have been applied consistently. An example is the Air Transport Command Base, Toronto. It has one unit of Air Transport Command, 7 AMU. It has some 20 lodger units, none of which by definition of a lodger unit is engaged in air transport functions. In addition, over 30 Canadian Army Militia units and detachments are supported by this base.

Analysis of the task of bases shows them to be singularly uniform. They provide administrative and logistic support for units based on them. The incorporated elements of bases include an administrative element (usually a HQ), and detachments of works services, transport, supply, maintenance, pay, police and postal units. They are the household managers. They relieve unit commanders of the task of operating and managing support facilities, freeing them for their functional jobs. They are not involved functionally, for instance, in mobile operations or in air defence. "Ask and you shall receive" could be their motto.

It would appear to this writer that such a single-purposed, easily defined set of tasks is ideal for functional control. Not only are the functions of bases similar, but there is a thread of commonalty joining them to a central control. This thread is really a chain, the ubiquitous chain of command. Functional commands are not able to promulgate any basic changes in the policy, procedures or organizations in their bases without CFHQ approval. This must be so, since one base could not introduce for in-

stance, an equipment condemnation policy by itself. Traffic between bases and, say, Materiel Command on materiel matters, must now pass through HQ in Halifax, Montreal, Trenton, and Winnipeg, which are, because of their functions, essentially disinterested in Materiel Command matters. The hand of a single manager is manifest in all bases. It should be recognized by being authorized to control the bases directly, as functional commanders control their units.

(G. D. Savage) Major

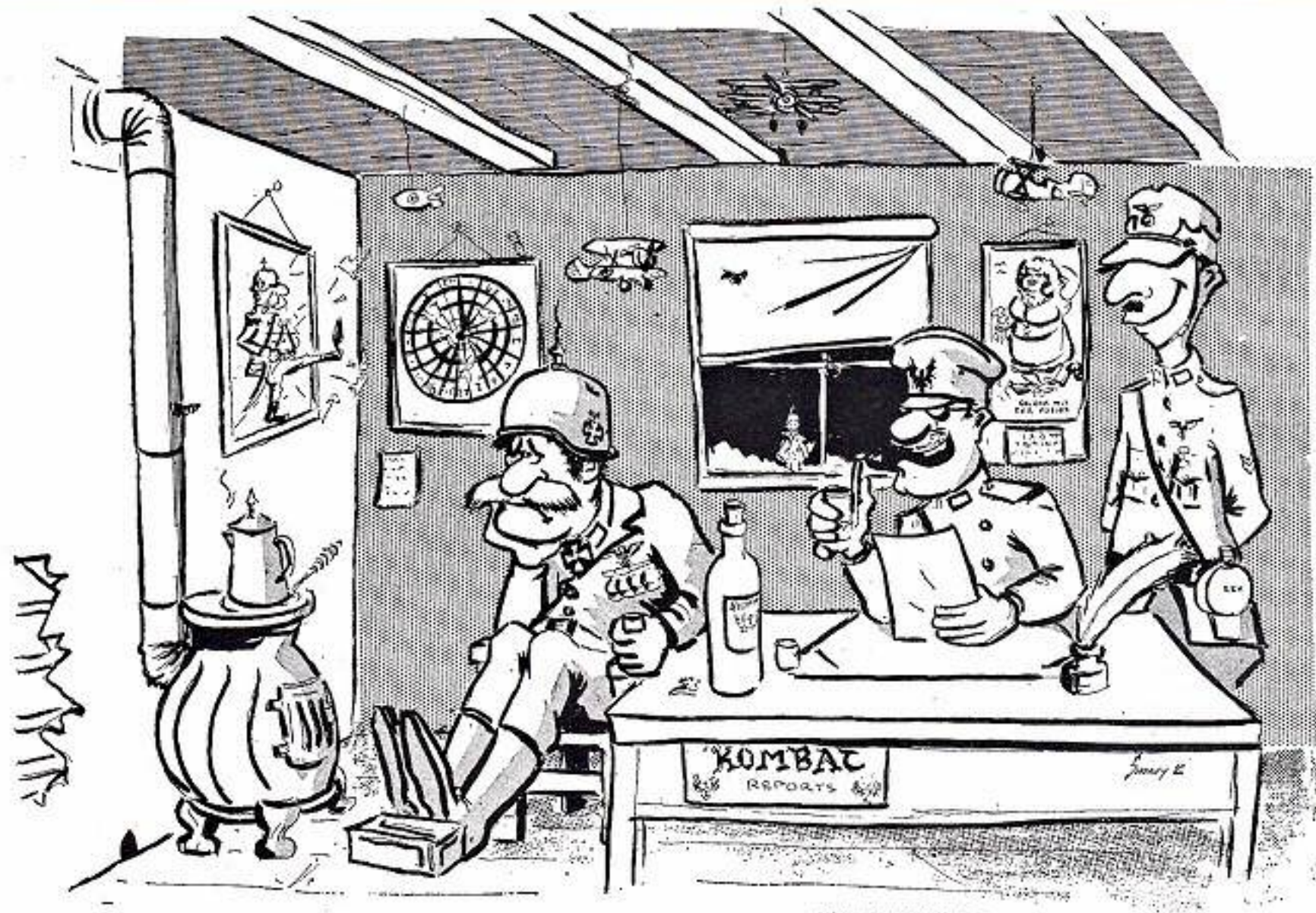
*As I read Maj Savage's article, his point is that, since all bases have essentially the same function, they should be under a single command. There are many arguments in favour of such an arrangement (some of which Maj Savage has mentioned) and, indeed, this proposal was seriously considered. In fact, we went even further and considered making ALL support (other than training) the responsibility of the one command.*

*There are also, however, many aspects of such an arrangement that are undesirable. Space does not permit discussing all of them here, but the balanced career-development of potential senior commanders (who, in this age, must also be good managers), and the need to assign both responsibility and authority to the same person, are two examples.*

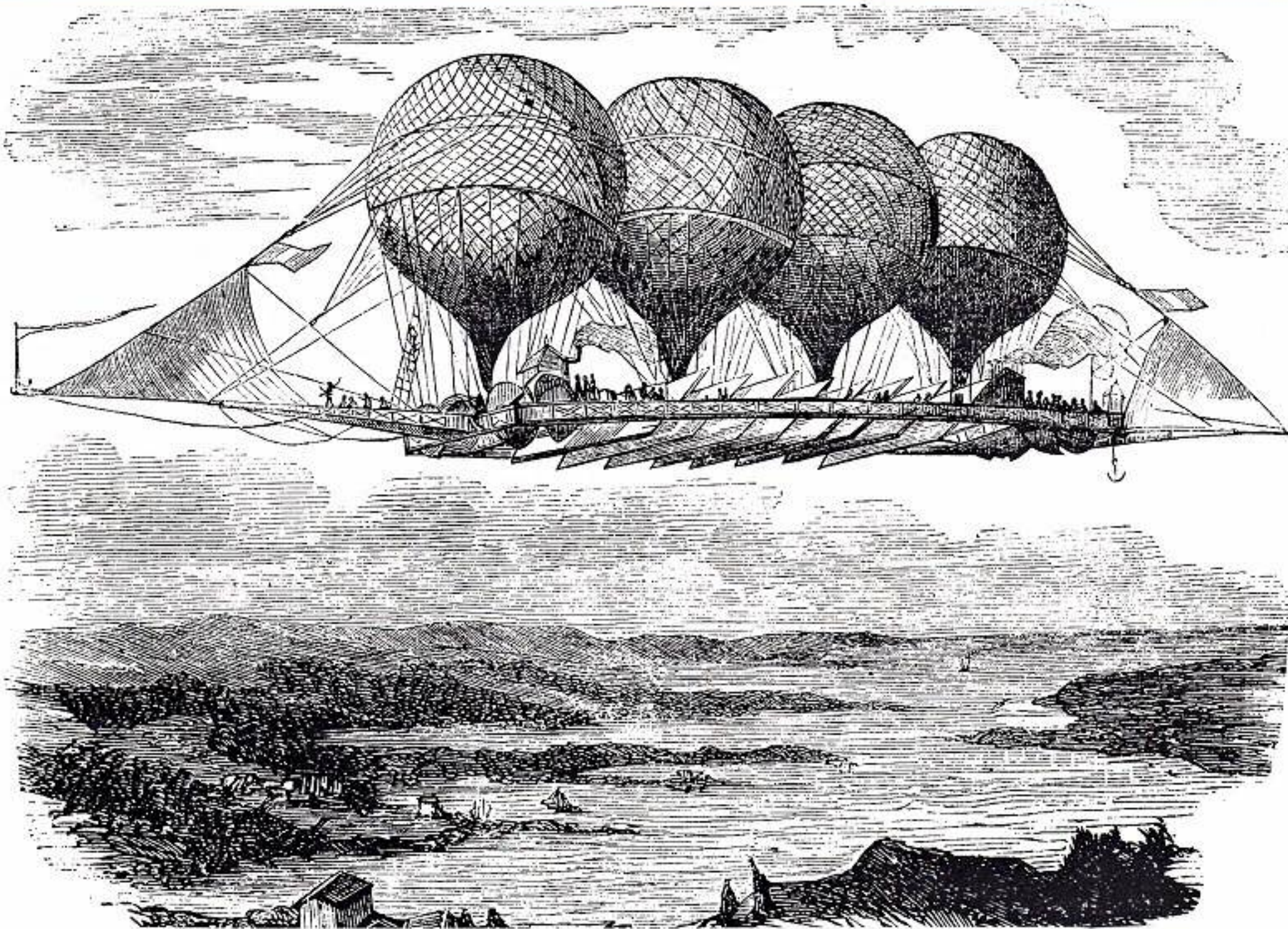
*Just to set the record straight, control of bases was NOT decided solely on the basis of which command owned the major components at the base — although this was one of the considerations. The case of CFB Toronto is a case in point. It was assigned to Air Transport Command not because it has the major units on the base (although it has more than Maj Savage indicates) but because one of the base's biggest jobs is the operation and maintenance of a major airport, which is an important staging point in our air transport system.*

*In conclusion, I would like to state that experience will obviously indicate cases in which our allocation of bases of commands and responsibilities to bases could be improved upon. We will welcome any constructive suggestions for improvement, but for the moment we are trying to maintain a brief period of stability, so that we can "shake-down" the new arrangements and find out where the "bugs" really are. . . Director General of Management Engineering and Automation.*





*Of course you understand our hesitancy on sending in your report Herr Baron. This is your third claim this month of a Sopwith Camel mit der name Snoopy on der side being flown by a small white dog.*



*Close the bar, steward. We just crossed the provincial border.*



MR G D [REDACTED]  
31 RANDOLPH RD  
TORONTO 17 ONT  
6C4182 6-67 SENT S

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Eleven interesting trades are now open to women in the Canadian Armed Forces. All are challenging, and provide ample opportunity for young women to display initiative and judgement. The trades are: radar plotter, radio operator, teletype operator, supply technician, X-ray technician, nursing assistant, operating room assistant, personnel and defence co-ordinator, physical education and recreation instructor, administrative clerk and finance clerk. To be eligible for enrolment applicants must be single, 18 to 29 years old (18 to 34 if skilled or with former service) a Canadian citizen, or British subject resident in Canada as a legally landed immigrant, and have at least grade 10 education. More information can be obtained by calling at a Canadian Forces Recruiting Centre, or by writing to the Director of Recruiting, Canadian Forces Headquarters, Ottawa 4, Ontario. Corporal Marion Ethell, an operating room technician, selects the various instruments which will be required for surgery at the National Defence Medical Centre, in Ottawa.