

JAN.-FEB. 1964
VOL. 16, No. 1

ROADZCOR



ROYAL
CANADIAN
AIR FORCE

CENTRAL
EXPERIMENTAL
AND PROVING
ESTABLISHMENT



COVER CAPTION

Newest helicopter in the RCAF inventory, the CH-113 undergoes acceptance trials at Central Experimental and Proving Establishment, Uplands. This year the Vertol-produced, twin-turbine powered helicopter will go into search and rescue service across Canada.

ROUNDEL

*Published on the authority of
the Chief of the Air Staff, Royal Canadian Air Force*

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VOL. 16, No. 1

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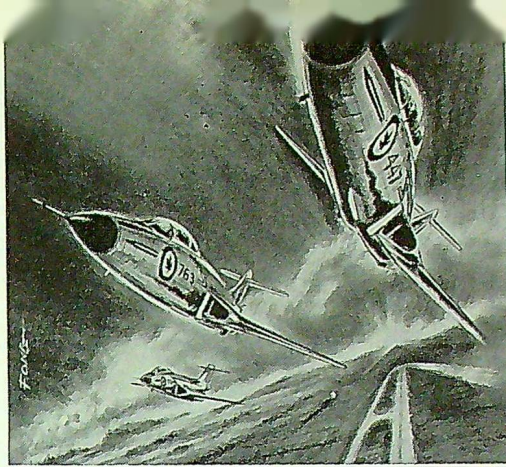
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ON THE BREAK

AS we begin Volume 16, we think it appropriate to restate *ROUNDEL's* purpose. Essentially, it is to tell the story of the RCAF — past, present and future (when accurately predictable) — not only for the 51,000 serving members of the regular force, but for a much wider audience in the reserves, association, air cadets and the Canadian population generally.

To do this, we must rely on the support and active participation of a great many people not directly connected with the magazine. For this support, we thank you — and ask for your continuing co-operation.



S/L A. T. Paton



F/L T. G. Coughlin

THIS might also be an opportune time to introduce ourselves. We look for guidance to the seven-man *ROUNDEL* editorial committee, representing all major AFHQ components, whose diversity of opinions and technical knowledge are the buffers between the raw material and finished product in each issue.

The undersigned, a Vancouver native and UBC graduate (*Ubyssy* editor 1941-42), completed an operational tour as a navigator in Bomber Command. After the war he worked as DVA public relations officer in B.C. and Alberta until 1951 when he rejoined the RCAF in the flying control trade. Responding to the urge of printer's ink in his blood, he returned to the journalistic field in 1957 as assistant editor of this magazine. When the founding editor, S/L U. H. Mignon, retired in the spring of 1958 he assumed his present position.

The No. 2 man on the *ROUNDEL* team is F/L Tom Coughlin, an Ottawa native, who first joined the RCAF in 1943 and won his air gunner's wing. In 1951 he graduated in journalism from Carleton University and worked for a time on the *Ottawa Citizen* and for *British United Press* in Montreal. Re-joining the air force in 1952, he became a pilot and did his first ground tour as *ROUNDEL* assistant editor from 1955 to 1957. After another stint of flying, he transferred to the public information trade and returned to our little red brick shack on Victoria Island. For an example of F/L Coughlin's writing ability, see page 12.

Our devoted secretary, Mrs. R. C. (Alice) Moffatt, is now in her seventh year at *ROUNDEL*. Combining efficiency with an ever-pleasant personality, she is literally jack-of-all-trades: receptionist, typist, clerk, proof reader, circulation manager and coffee maker par excellence.

In addition to these three full-time members of the staff, we call increasingly upon Cpl. Pete Fong of the AFHQ graphic arts section for part-time help. Pete joined the air force as an armourer 11 years ago, but switched to his present trade in 1958. For the past year he has been our lay-out man and art director. The unobtrusive Fong by-line on many illustrations is a familiar sight to regular readers and his talents on cover design have prompted much favourable comment in recent months.



Mrs. R. C. Moffatt



Cpl. P. K. W. Fong

A. T. Paton S/L
Editor

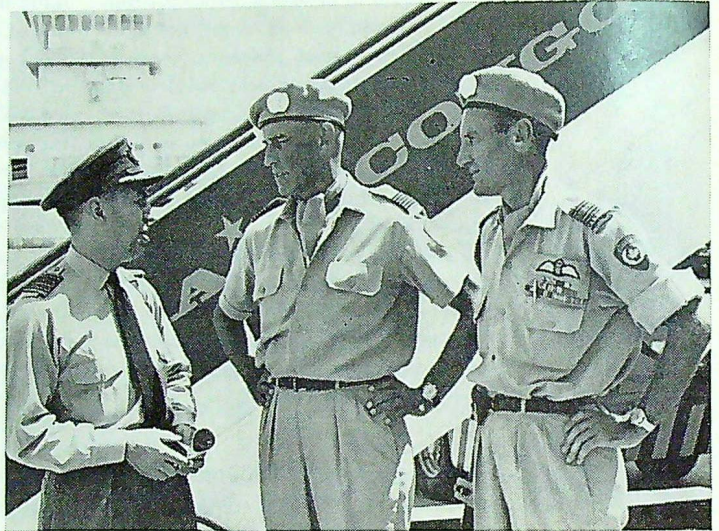
AROUND THE WORLD IN 80 HOURS

A YUKON transport of No. 437 Sqn., captained by S/L G. A. MacKenzie, headed east from Trenton before Christmas on an around the world flight. The aircraft's 36,000-lb. cargo of mail and supplies was destined for Canadian forces serving with the United Nations in the Congo and in South Viet Nam.

The 25,800-mile flight, involving two Sundays as the Yukon crossed the international date line, was carried out in some 76 hours flying time. In addition to cargo deliveries at Leopoldville and Saigon, refueling stops were made at Shannon, Pisa, Wheelus Air Force Base in Libya, Nairobi, Gan in the Maldive Islands, Hong Kong, Honolulu and Vancouver.

Homeward bound, cargo and Christmas mail were picked up at Saigon and Vancouver for delivery at Trenton. The crew touched down amid a welter of lost time-zone hours, foreign exchange rates, and mixed up meals, after a total elapsed time of just over eight days away from base.

PHOTOSTORY BY FLIGHT LIEUTENANT K. G. COLEMAN



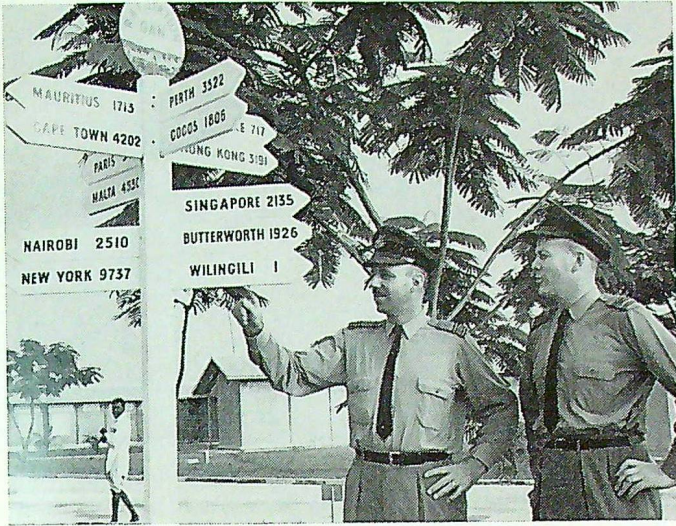
At Leopoldville G/C H. W. Lupton, senior air staff officer at ATCHQ and senior officer aboard the Yukon, meets W/C (now G/C) G. G. Wright and S/L H. V. Peterson, senior members of the RCAF contingent in the Congo.

Army Sgt. A. J. Gaillard rides herd on Christmas mail unloaded at Leopoldville for Canadian servicemen.



Air Viet Nam technicians unload supplies at Saigon.





On an Indian Ocean atoll in the Maldive Group, navigator S/L A. J. S. Timmins and pilot F/L G. J. Carscadden check their position during refueling stop at RAF Stn. Gan.

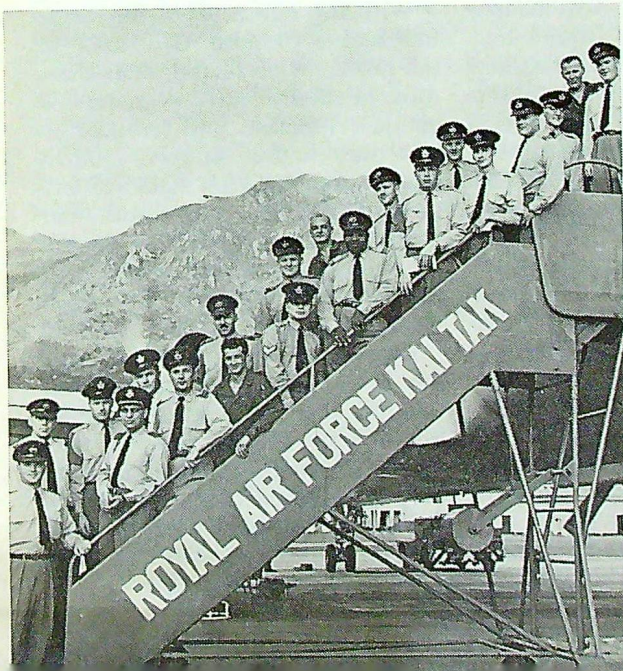


F/L C. M. Knight, member of the Yukon crew, chats with old buddy AC1 F. Nurse at RAF Stn. Kai Tak in Hong Kong. The two Barbados natives had not met for 17 years.

Pre-Christmas street scene in Hong Kong.



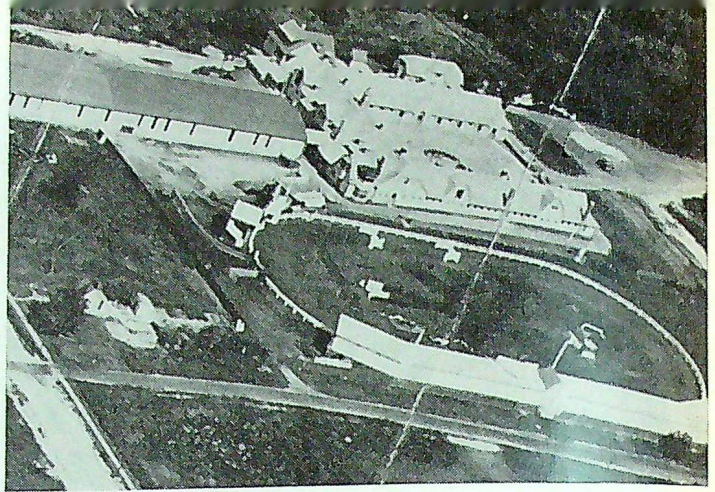
Homeward bound, the Yukon crew posed for this photo before heading east across the Pacific.



Last stop before Canada was at Hickam AFB, Hawaii. (L. to r.) G/C H. W. Lupton, S/L G. A. MacKenzie and F/L L. N. de Tilley.



I. A. M.



1924: Eglinton Hunt Club was on the northern outskirts of Toronto 40 years ago . . .

By GROUP CAPTAIN H. B. HAY,
DSO, DFC, CD, BSc., MD, MPH
Commanding Officer, Institute of Aviation Medicine



After winning the DSO and DFC and Bar during two operational tours as a navigator on *Hampden* and *Mosquito* aircraft, G/C Hay returned to Canada in 1944 and won his pilot wings in 1945. Taking leave of absence to complete his medical studies at The University of Western Ontario, he has since served in progressively higher RCAF medical positions at home and abroad. He has headed I.A.M. since July '61.

THE Institute of Aviation Medicine, located at 1107 Avenue Road, Toronto, owes its origin to the initiative and perseverance of Sir Frederick Banting of insulin fame. Originally known as No. 1 Clinical Investigation Unit, it was formed by the efforts of Sir Frederick and others as a medical research centre in the very early days of World War II, where it initially housed little more than a human centrifuge and a few dedicated scientists.

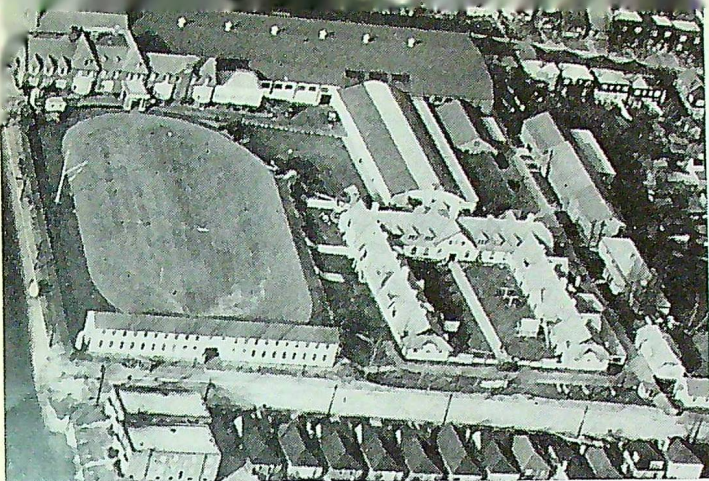
As the war increased in tempo, however, so grew the requirement for a more precise and detailed knowledge of human function and capacity under stress. To meet this requirement the original group expanded to include other medical scientists, many of whom now bear well-known names in medical research, and proceeded to develop a wealth of knowledge in the fields of environmental physiology and medicine. This is not the place to discuss their achievements in acceleration research and protection, development of oxygen systems, survival equipment, and the like, except to say that were it not for their work and that of others like them, man would not today be flying in high-speed high-altitude jets

and confidently contemplating trips to the moon.

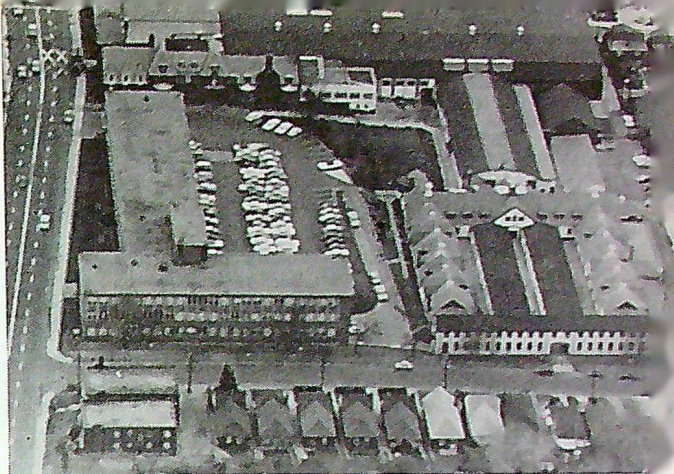
By 1945 No. 1 CIU had changed its name to the Institute of Aviation Medicine (IAM), had developed research facilities and equipment to investigate many types of stress, and had expanded to include a school, a medical consultant board, a medical statistical section, a nutritional laboratory, and a bacteriological laboratory, along with all the necessary support facilities.

With the advent of peace, there followed a diminished interest in the problems of aviation medicine. Most of the medical scientists took off their uniforms and returned to earn new laurels in their civilian laboratories. Aviation medicine languished all over the world. But passing events and a redeveloping RCAF ensured that the requirement for continued aeromedical research would be maintained.

Korea and the Cold War gave the initial spur. The environment that was once thought suitable only for selected trained aircrew was about to become commonplace for the unselected, perhaps unfit, civilian; the final drive appeared when the first sputnik climbed into orbit and it became obvious that "man in



1944: Taken over by the RCAF early in the war, the property became known as the Avenue Road Site, housed No. 1 I.T.S. as well as the forerunner of I.A.M. . . .



1964: Today I.A.M. occupies the three-storey, L-shaped building in the lower left-hand corner of this photo. RCAF Staff School, Toronto auxiliary and association wings use other facilities.

space” was no longer merely the fantasy of a science fiction writer.

To aircrew today, the IAM is frequently regarded as the place they come to be grounded; to medical officers in the field it may be considered the ivory tower whose pronouncements may be divorced from the harsh practicalities of medical practice; but to the international aeromedical scientist it is a facility known to carry out definitive research and development on a shoestring budget, and one whose opinions are treated with respect.

Organized within the structure of the Canadian Forces Medical Service, the IAM is potentially tri-service in its function and its staffing, although it is unique among medical units in that the ultimate responsibility of the CO is through the Surgeon General to the CAS. Thus the RCAF maintains control, although direction comes from the Surgeon General.

Because of the nature of the work, where a free interchange of ideas between military and civilian agencies is essential for the development of safety in flight, the IAM is in the fortunate position of being able to maintain a ready liaison wherever the requirement exists.

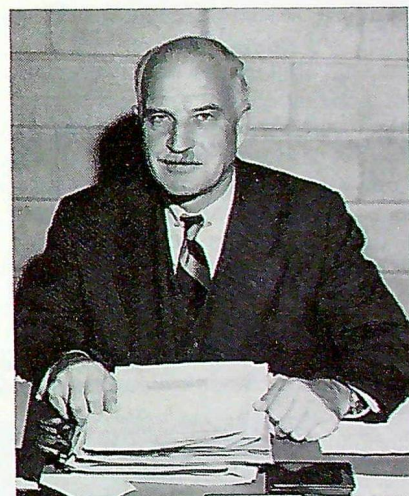
This includes liaison with other RCAF units, other services and government organizations, universities, and industry in Canada, as well as military forces, academic research institutes, and industry in the U.K., U.S., and other countries if necessary.

What is the function of the IAM? Basically, it serves three functions: evaluation of aircrew fitness, dissemination of aeromedical information, and aeromedical research and development.

To serve these three functions it is divided into four sections: the Medical Review Board, the School of Aviation Medicine, the Operational Medical Establishment and the RCN Personnel Research Unit.

MEDICAL REVIEW BOARD

The Medical Review Board, which was previously known as the Central Medical Establishment, provides consultant services in the evaluation of aircrew fitness. With good diagnostic facilities immediately at hand, access to additional civilian consultants and specialized facilities if required, it is in a position to provide the most thorough investigation and authoritative opinion available. Its services are con-



Dr. W. R. Franks (G/C, RCAF Reserve), I.A.M. scientific advisor in aviation medicine and University of Toronto professor in medical research, invented the Franks (anti-G) flying suit and was responsible for development of the RCAF (now DRB) human centrifuge.

S/L A. C. Bryan conducts lecture in respiratory physiology for student flight surgeons at D.R.M.L..



stantly in use to determine the disposition of aircrew whose investigation is beyond the scope of the local facilities. Consequently, to this unit come the most obscure cases — those which all too often lead to a temporary or permanent grounding. Here also come aircrew for special medical examination, such as that required before conversion to high-performance aircraft. In addition, the Medical Review Board acts in a general advisory capacity to the Surgeon General in connection with medical standards for aircrew and other matters presented to it.

SCHOOL OF AVIATION MEDICINE

The School of Aviation Medicine, as the name would imply, is responsible for the indoctrination of medical officers, aircrew, technicians and others in aeromedical matters; also, for the dissemination of aeromedical information in the form of publications, films, etc. Although bearing no direct responsibility for field training, it exerts a monitoring function over other aeromedical training taking place else-

where in the RCAF, and may contribute in the form of advice to the Surgeon General. In some respects the whole IAM may be considered as the school, since all sections are involved in the various training programs. In fact the situation is analogous with a university, where different faculties are each engaged in their own activities, but each contribute to the teaching program. Teaching sources, however, are not confined to the IAM; demands are also made on other service units, and outside sources such as universities and hospitals.

Much attention is directed towards the training of medical officers. They are provided with several courses at different levels of their careers, leading eventually to the graduation of some as flight surgeons, and assisting in the further training of a few as environmental specialists.

However, not only medical officers are students here. Much of the training commitment is concerned with the indoctrination of aircrew. High altitude training courses are

given to certain aircrew and civilians requiring routine refresher training; more formal and longer courses, however, embodying training in applied physiology, personal and safety equipment, and the like, are presented to other aircrew groups such as flight safety officers and personal safety equipment officers. Special courses are presented to aeromedical training officers and bioscience technicians to provide them with the knowledge they require in their daily activities. Several other groups, such as the safety equipment technicians, are also exposed to short courses either to give them background for their work or to demonstrate the significance of aeromedical problems.

RCN PERSONNEL RESEARCH UNIT

Having a naval research unit 500 miles from the nearest ocean may seem an odd situation. However, such a situation is found at the RCN Personnel Research Unit which operates out of the IAM/DRML facilities but remains separate from the IAM research organi-



F/L R. M. Rynard and LAC R. H. Loignon demonstrate pressure suit equipment for W/C P. Dharmaraj, Indian Air Force doctor studying I.A.M. procedures.

OPERATIONAL MEDICAL ESTABLISHMENT

Without discounting the importance of other sections, there is no doubt that the greatest glamour in the IAM lies in the section known as the Operational Medical Establishment with its high altitude chambers, accelerator, motion platform, pressure suits, masks, helmets and all the gadgetry associated with the space age. This is the section where man and machine are put to the test, where man's capacities and body processes are recorded, charted and measured, and where the physician, physiologist, engineer, pilot, physicist, psychologist, and electronicist unite to develop systems, devices and procedures to allow man to meet the hazards of a threatening environment.

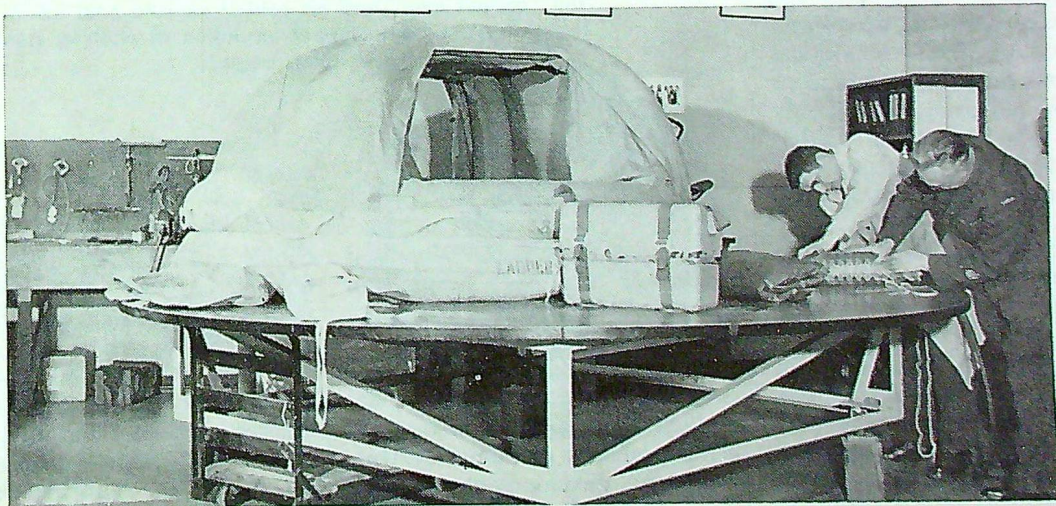
This is the department responsible for the application of basic sciences to the problems which can affect the operational efficiency, safety, survival, selection and training of aircrew. Because we are dealing with man in a man-machine system, one major section is classified under the term "life sciences"

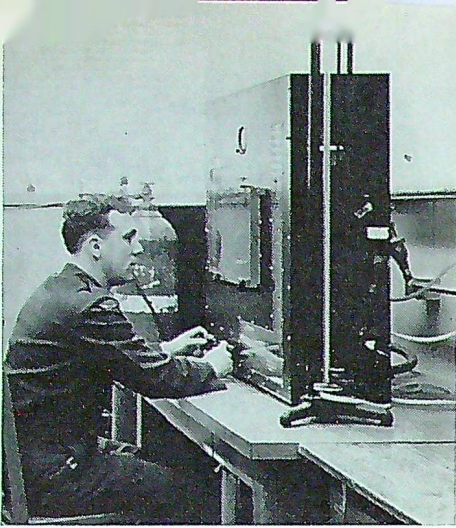
zation. Originally located at Halifax, the unit became incorporated in the IAM as the naval component of a tri-service research and development complex.

With its interests in the problems of the sea environment, the unit has

concentrated largely on the difficulties of underwater operations, and in particular on the problems of deep diving, with results which in the near future may prove to be of considerable significance to the diving world.

Safety equipment technicians, under WO1 T. D. Holmwood, set up I.A.M. display of water survival gear.





Medical technical assistant Cpl. J. A. Curley operates oxygen regulator tester in I.A.M. laboratory.

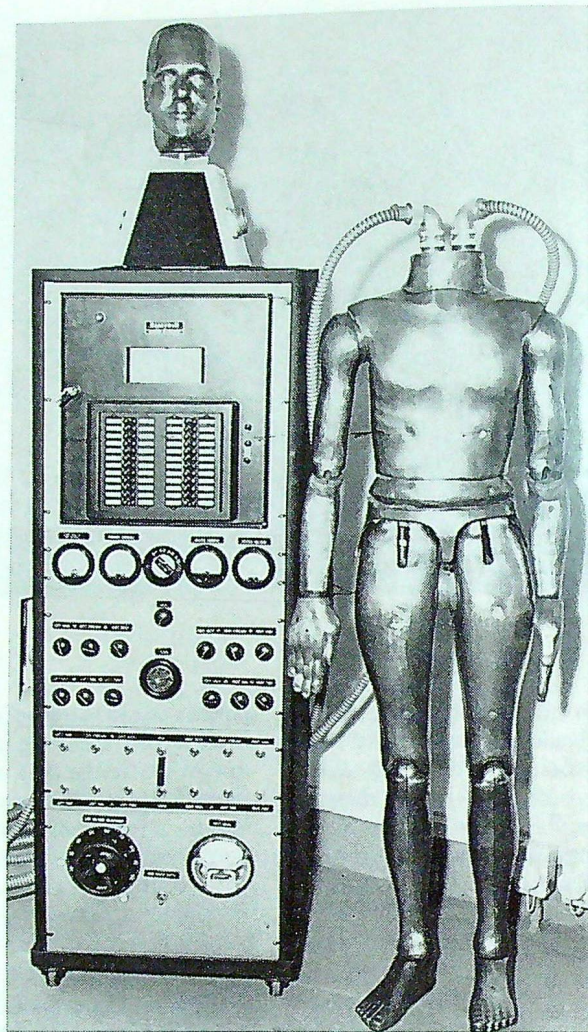
and is concerned with investigating and attempting to control or mitigate man's physiological response to a stressful environment. In other words, how do his body processes react in the presence of changes in barometric pressure, extremes of temperature and humidity, intensities of noise, buffeting, radiation, and acceleration? How does he respond in situations of disorientation, motion sickness or emotional stress? How can this environment be modified to permit him not only to tolerate it but to complete within it a difficult task? What processes and devices can be developed to assist him, and if all else fails how can he escape from an impossible environment with the minimum of damage?

Another section is concerned with his behavioural response; that is, in defining man's physical capabilities and limitations and applying that knowledge to the design of man-machine systems. How does he per-

form under normal and abnormal conditions? How does he read an instrument? What is the best design for a cockpit display? How high is a seat? How long is a leg?

A third section of the Operational Medical Establishment is devoted to the problems of safety and survival — the development of para-

chutes and harnessry, clothing and textiles, survival packs and techniques of packaging, and the many other facets of survival on land, sea and air. To this section belongs the problem of providing systems for emergency shelter and food for 150 or more passengers forced down in the Arctic, for ensuring that din-



This "copper man" and his control console help I.A.M. technicians measure thermal insulation of clothing and sleeping bags.

ghies will inflate when they are needed, for providing life jackets for six-month old babies. And as fast as one problem is answered, so the terms of reference change. What was applicable to a CF-100 is useless for a CF-104. What was adequate for a *North Star* is ludicrous for a *Yukon*.

SERVICING SECTION

To provide service for these three major groups a fourth section is required — one that offers engineering skill, mathematical theory and electronic knowhow. This section is staffed with a multi-disciplined group of officers and airmen who supply this service, and is equipped with machine, plastic, wood, and tailoring shops capable of producing prototype equipment or research devices in any required material from extruded aluminum to polyurethane foam.

All this activity requires large scale facilities. Some of these are the responsibility of the IAM. Some, although under the control of the IAM, belong to the Defence Research Medical Laboratories (DRML), and some, although controlled by DRML are used by the IAM when required.

At the Downsview site of DRML is located the high altitude laboratory with its low pressure chambers capable of simulating the near-vacuum of deep space or of exposing an unsuspecting pilot to a rapid or explosive decompression from an effective cabin altitude of 8,000 feet to an effective altitude of 40,000 feet, as might happen for instance in window-failure in a present day jet transport.

Nearby are the oxygen quality control and equipment laboratories where scientists and technicians test and develop oxygen systems and components, and ensure the quality of the oxygen that is so casually breathed by our high altitude aircrew.

In the cardio-pulmonary physiology laboratory investigation is undertaken to determine the response of the heart, lungs, and circulation under conditions of rest, exercise and stress of one kind or another.

Other facilities include the human centrifuge that can whirl you in a mighty 5, 10, or 20G turn (if it were necessary!), the motion platform that can reproduce the buffeting of turbulent flight, the noise laboratory where one's very bones vibrate with the intensity, the mo-

tion sickness laboratory with its nauseating turntable, the climatic suites that can reproduce the bitterness of the Arctic or the stifling humidity of the Congo jungle. The carefully controlled devices of the human engineering section measure with unemotional precision the complexities of one's response to a stimulus, or with equally casual objectivity the thickness of fat on a buttock. In the museum the brilliant failures in protective equipment lie displayed beside the even more brilliant early successes. The survival and safety equipment laboratories held newly-developed pneumatic survival shelters, lightweight parkas made of synthetics, or where vacuum packaging techniques compress a sleeping bag to the size of a dictionary.

All this may be seen, and more. But the ability to carry out research and development is not merely a matter of facilities and equipment. It is the people, not the materials, that make the difference, and the record of the IAM in scientific development over the past 20 years indicates that somehow the right people have managed to find their way there. No doubt they always will. ☺

This badge, introduced officially last summer, is worn on the left breast pocket of medical officers who have completed the flight surgeons' course at I.A.M. or equivalent. To date, 65 RCAF, seven RCN and two Canadian Army medical officers have been awarded the badge.





ELECTRONIC WARFARE

By CORPORAL A. L. HERRON
Air Defence Command Public Relations

SIR Winston Churchill called electronic warfare "The Battle of the Wizards" during World War II. In Canada today this wizardry is practiced by one of the air force's newest units: the Electronic Warfare Unit (EWU) which will soon be moving its main base from St. Hubert to Uplands.

The field of electronic warfare has two major divisions: electronic countermeasures (ECM) and electronic counter-countermeasures (ECCM). ECM is the art of rendering communications and radar ineffective by presenting false information to these systems or "jamming" the true information. ECCM is the art of nullifying the effects of ECM by means of special devices and training.

Air-dropping bundles of "chaff" (pieces of foil which reflect radar energy) is one common ECM method. Wartime bomber crews will recall this as "window", hurled into the night sky to make enemy scope-watchers see thousands of blips instead of the tell-tale one caused by their bomber as it approached the target. ECM is also accomplished by transmitting various types of signals at the frequencies of both

air and ground communications and radar systems.

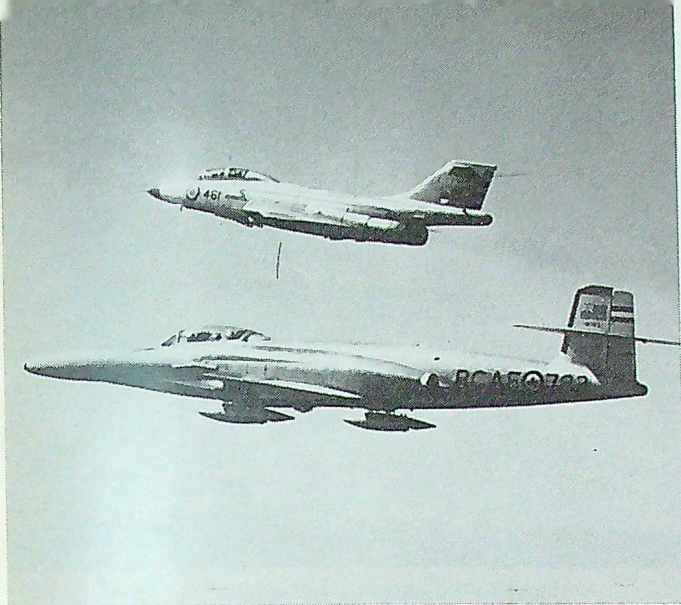
The Electronic Warfare Unit's job is two-fold. Primarily, it must train the personnel who operate our ground and airborne radars in methods of countering enemy ECM; secondly, it must provide the maximum of practice to enable the operators to adopt the proper procedures as a reflex action. EWU's job is done by repetitively duplicating all actions an enemy might be expected to adopt.

To support this training role the unit flies specially-equipped C-119G *Boxcars* and CF-100 *Canucks*. With these aircraft EWU has the task of training aircrews of the five CF-101B *Voodoo* squadrons and ground radar operators, in recognizing and countering electronic countermeasures.

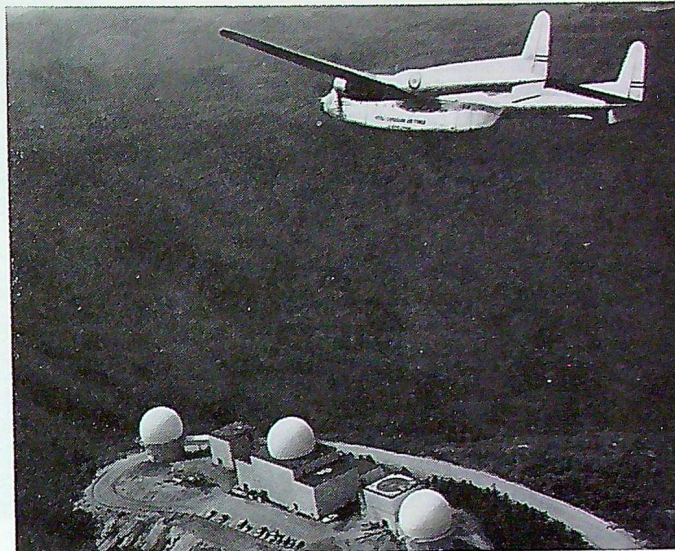
The C-119 aircraft, their normal cargo space packed with electronic equipment and a chaff dispenser, provide airborne ECM emissions which, directed against Pinetree Line, Newfoundland and Labrador radar sites, simulate enemy ECM action. The ECM-equipped CF-100s perform a similar function for our interceptors. A detachment stationed at Comox, equipped with

W/C J. D. W. Campbell, DFC, Officer
Commanding E.W.U.





CF-101B makes a pass over CF-100 during ECM exercise.



An EWU C-119 flies over Stn. Parent on a Pinetree Line radar jamming exercise.

CF-100s without an ECM capability, provides aerial targets for units on the west coast. The CF-100s, minus their familiar rocket pods, are provided with tip tanks — for longer range and greater endurance — and wing-mounted chaff dispensers. Occasionally a requirement occurs, principally for the Comox detachment, to exercise USAF bases in the northwestern United States. In addition to the unit's electronic warfare role, EWU is committed to providing target (or "faker") aircraft for radar tracking and interception practice.

Electronic warfare in the RCAF got its start in 1955 when five radio officers of No. 104 Communications Unit at St. Hubert formed an ECM training section within the unit. At that time a very basic type of ECM training was provided for crews flying CF-100s, by throwing chaff by hand from special windows cut

into two C-47s. This had to suffice until the arrival in 1956 of the first of three C-119s and the first specially-equipped CF-100.

By late 1957 ECM personnel had more than doubled and No. 104 KU began to bulge with its new infant. The official birthdate of EWU is 1 Apr. '59, the RCAF's 35th anniversary, when the personnel and aircraft which had been operating since 1955 as No. 104 KU's ECM section became an independent unit.

With its formation under the command of S/L G. D. Fowler, more air and ground crew began to arrive. In late 1960 additional ECM-trained aircrew arrived to operate the unit's CF-100 ECM aircraft. The buildup continued under its present officer commanding, W/C J. D. W. Campbell, until today EWU is one of the major flying units in the RCAF.

LACs J. Bellavance and R. Molson load chaff in the wing dispenser of an EWU CF-100 aircraft.



CANDID CONGO

By FLIGHT LIEUTENANT T. G. COUGHLIN
Assistant Editor, ROUNDEL



Modern Leopoldville by night . . .

IN the summer of 1960 the week-old Congolese government appealed to the United Nations for assistance in restoring peace and order to their strife-torn republic. Canada was one of more than 30 middle-power nations which offered aid. Accordingly, the UN specifically requested from Canada an air operations staff to set up and operate air movements within the Congo, and Canadian Army Signals personnel and equipment to provide an internal communications network. Thus, for a number of RCAF and Canadian Army personnel, flying over steaming jungles and living in equatorial heat became a way of life.

In addition to controlling air movements within the Congo, the RCAF was ordered to provide air transport from the outside world to Leopoldville. To determine the Organisation Nations Unies du Congo (ONUC) airlift requirement, A/C F. S. Carpenter, AFC, then AOC of Air Transport Command, flew to the Congo to carry out a survey. On 18 July '60 the first cargo-laden *North Star* was airborne from Trenton. In less than one hour, three more

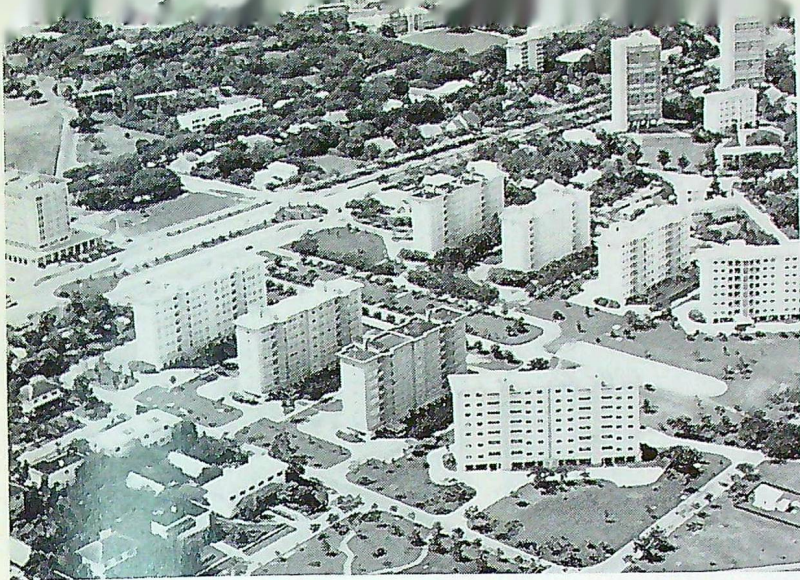
North Stars followed. On the first few trips the aircraft carried powdered milk and canned pork. Three weeks later, troops and equipment were being airlifted to the Congo while two scheduled flights a week were shuttling between Pisa and Leopoldville.* The airlift grew until it became Air Transport Command's largest operation since the Korean War.

For at least one of the original crews, a trip to the Congo meant a sudden change in flight plans. Flight Lieutenant W. D. Watt, a navigator with No. 426 Sqn., was in Langar, England, plotting his trip back to Trenton when the word came: he and the rest of the crew were to proceed to Pisa, Italy, and pick up 44 members of the World Health Organization for duty in the Congo. The trip to Pisa, then to Tripoli, Libya, went off without a hitch. From there on it became more difficult. Topographic maps covering the entire route from Tripoli to Leopoldville were just not available and ground navigation

aids along the way were few and far between. On the 1270-nautical mile leg from Tripoli to Kano, Nigeria, there was only one low-powered beacon located at Djanet in southern Algeria. Since this beacon was tucked away in the mountains, limiting its range to about 10 miles, the assistance it offered was negligible. However, there was a job to be done so the crew climbed on board and took off. More than seven weary hours later they touched down at Kano.

From Kano to Leopoldville the problem was repeated — a long way to go and radio beacons almost non-existent. In addition, near the equator is the inter-tropical front, a long line of clouds including thunderheads, which necessitated constant changes of heading and which, because of cloud cover, made celestial navigation difficult. ("It was," says F/L Watt, "an interesting trip".) Homeward-bound *North Star* crews had it easier. They winged their way up the west coast of Africa — the coastline providing ample radar fixes and national capitals such as Accra, Ghana, and Dakar, Senegal, homing them in with their radio

* ROUNDEL, Sept. '61



. . . and by day.



A C-54 explodes and burns at Elizabethville airport after being attacked by a mercenary of the Katangese Air Force.

beacons. But, after about a month, this northbound route was changed. Pisa became the staging point for UN troops and material, so all RCAF trips to and from the Congo went via that Italian city.

North Stars would leave Trenton and head for Gander, Nfld. From Gander it was an approximately nine-hour trans-Atlantic flight to Lajes in the Azores than another nine and a half hours to Pisa. At Pisa the nature of the flights changed. Up until this point the *North Stars* were strictly RCAF aircraft carrying an RCAF payload. But, at Pisa the *North Stars* were at the disposal of the UN and carried whatever combination of passengers and freight the UN designated.

Establishing internal air transport in the Congo was the responsibility of G/C W. K. Carr, DFC, the UN's first air transport commander at Leopoldville. His was a challenging task. The air transport force consisted of 13 different types of aircraft flown by aircrew—some military, some civilian—of eight different nationalities. A few were familiar with the aircraft; others were not and had to be trained on

the job. This, of course, posed a language problem. There were other problems—such as the shortage of every conceivable item and the inherent difficulty of maintaining such a wide variety of aircraft.

Wing Commander F. H. Pearce, who served as chief air transport operations officer, recalls that lack of UN standardization for parts and supplies added to his woes. On one occasion a critical shortage of hydraulic fluid caused aircraft to be grounded. A high-priority message was radioed to Trenton and a *North Star* was hastily despatched to the Congo with the urgently-required item. Some time later, ONUC Headquarters received a UN code-identifier. With this device W/C Pearce's staff were able to decode some Swedish markings on a number of barrels in a hangar. The barrels all contained hydraulic fluid.

Nevertheless, in spite of all the problems, regular air transportation was quickly established throughout the country. The air transport tasks were varied: airlifting of UN troops to meet police action requirements; re-supply flights to UN outposts; flood relief and the evacuation of

Baluba warriors from hostile areas. Initially, each flight within the Congo was an adventure in itself. An aircraft would take off and fly over terrain which was largely unmapped and where few, if any, radio facilities existed. When the aircraft flew beyond radio range, there was silence. There was no way of knowing if the crew and aircraft had reached their destination safely, had experienced trouble on the ground or when they would be back. The same situation held true for the *North Stars* inbound from Canada. Frequently one of these aircraft would be on the tarmac at Leopoldville for as much as three hours before a flight plan came through.

This unsatisfactory situation was radically changed, however, when the RCAF installed a single-side-band transmitter between Leopoldville and Trenton with a telephone extension to AFHQ. From 11 Aug. '60 until 25 Sept. '63 (when it was no longer needed)* there was a di-

* Because commercial radio networks had been re-established.

rect link from the Congo to Canada — more than 6,000 nautical miles away. And, throughout the Congo, the Royal Canadian Corps of Signals set up a communication network which proved invaluable. Whenever an aircraft appeared to be overdue, the Canadian Army would do a fast communication search on their network. They were then able to tell where the missing aircraft actually was. At the request of the RCAF's Congo Detachment, the army signallers also became weathermen. From their widespread radio outposts they would send descriptions of the prevailing weather. These reports, in layman's language, were perhaps more colourful than technically accurate, but very welcome nevertheless.

The single-side-band transmitter was brought into being when a group of personnel, made up of RCAF and Canadian civilians went to N'dolo, Leopoldville's secondary airport. These Canadians were given permission by Colonel Mobutu (later General) to use land at the site for their transmitter and receiver. In exchange for this courtesy, the RCAF arranged for Col. Mobutu and other government officials to speak directly to several Congolese officers training in Canada. But, for the handful of Canadians (two officers, one civilian, three senior NCOs, two corporals and six aircraftmen), living at N'dolo was a lonely experience. They were on their own, in a villa miles removed from their colleagues in downtown Leopoldville or N'djilla airport. However, there were compensations. Since they were located close to Congolese troops, the French-speaking Canadians were able to meet and converse with the French-speaking Congolese. This linguistic compatibility resulted in some of the airmen being invited to try the native dish Moambe, a delicacy consisting of chicken cooked in palm oil and



S/L G. M. Stuart displays two items common to the Congo scene, an elephant tusk and a Baluba warrior's shield.

served with rice and saka saka (native spinach).

Another isolated group of RCAF personnel, the control tower operators, contributed much to the success of the Congo operation. At Kamina, in the breakaway province of Katanga, the tower was run by civilians but the ONUC was concerned with their reliability in the event fighting broke out. Consequently, a mobile control tower, manned by RCAF personnel, was sent to Kamina as a back-up. In due course, fighting did flare up, the civilians fled so the RCAF members began operating their mobile unit. For most of the airmen it was their first experience at hearing shots fired in anger. They heard plenty. During the heat of the battle mortar fire fell repeatedly around them. Fortunately, there were no injuries.

Other Canadians returned to Canada with equally vivid recollections of service in that tropical trouble spot. For instance, WOII F. E. Collins had an experience he will long remember. He and an RCAF flight lieutenant were sent to Stanleyville on ONUC business.



An RCAF air traffic control team relax by their mobile control tower at Kamina. L. to r.: F/L G. A. Duffy, Cpl. G. S. McQuarrie, LAC J. Krasnicki, and Lt. V. Kimiagar, a pilot of the Iranian Imperial Air Force.

The officer was interested in the problem of supply, while WO Collins wanted to evaluate the electronic equipment in the tower and to select a GCA site. They arrived at Stanleyville one morning without incident. After lunch the two RAF members walked to the tarmac of the airport to meet an incoming RCAF officer. As this new arrival stepped off the aircraft he and his two colleagues were surrounded by a group of Congolese soldiers. With rifle barrels pressed into their backs, the three Canadians were marched into the control tower and confronted by a Congolese official.

The captives produced their UN papers but, as a token of defiance, these papers were torn up by the Congolese. At this tense moment a Swahili-speaking Ethiopian general arrived on the scene and interceded on behalf of the Canadians. Apparently, the sight of two RCAF officers wearing aircrew wings on their tunics was too much for the Congolese, who were convinced that they had captured Belgian paratroopers and weren't in any mood to release them. While the argument between

the Ethiopian and the Congolese raged over the fate of the Canadians, WO Collins slowly worked his way to the radio console in the tower.

Over the shouting and pounding on desks he tuned his experienced ear to the emissions from the radio set and unobtrusively went about his business of checking the various frequencies. Having finished his evaluation of the radio equipment, he took advantage of the fact that he was in a lofty control tower to survey the airport for a GCA site. Shortly after he completed his mission, the argument ended — temporarily. But for three days the Canadians were held in a hotel room while the Congolese decided their destiny. Fortunately, the Ethiopian general made his views prevail and the Canadians were released.

The RCAF contingent in the Congo was made up of personnel from many trades and from many places. For Cpl. R. B. Cousineau, the road to the Congo was the long-way round. Corporal Cousineau was serving in the Gaza Strip when the crisis in the Congo began. At the end of his tour in North Africa he returned to Canada but, within five months, he was on his way back to Africa for duty in the Congo.

“At least,” said Cpl. Cousineau, “I didn’t have to become acclimatized to the heat, my tour in the Gaza Strip prepared me for that.”

Like many others, Cpl. Cousineau

was both surprised and impressed with the Congo. Surprises and impressions begin with arrival at N’djili airport which has a 15,420 foot runway, one of the longest in the world. Then the visitor is usually amazed at the very up-to-date terminal building and the four-lane highway leading into Leopoldville. The size and appearance of ONUC Headquarters also comes as a bit of a shock. It is an ultra-modern, 10-storey office building in the centre of the city.

In November ’61 the RCAF pulled the *North Stars* off the Congo run and replaced them with *Yukons*. To F/L P. Hope, who flew both types to Leopoldville, the switch to *Yukons* was a decided improvement. “We could,” he said, “take as much as 40,000 pounds, quite a contrast to the 10,000-pound payload of the *North Stars*.” It is more than a matter of payload. The *Yukons* fly from Canada to the Congo in two giant steps, going from Trenton to Pisa, Pisa to Leopoldville in quiet, comfortable above-the-weather operations. The *Yukons* are back in Trenton in five days. *North Stars* lumbered their way to the Congo and back with more frequent refueling stops.

But the *Yukons* got off to a bad start on the Congo service. While the first *Yukon* arrived without incident, the second one was not so fortunate. The Congolese suddenly realized that there was a strange

new aircraft landing on their airport. For some reason, they thought it was Russian. As the RCAF crew climbed down the ramp from their aircraft they were surrounded by gun-toting guards. The aircraft was impounded and searched. There was a tense moment as one of the Congolese soldiers started to unpack the safety equipment. If he had discovered the shotgun, which is a normal part of the *Yukon’s* survival equipment, the Congolese would have been convinced that they had intercepted contraband. Fortunately, however, the curious soldier lost his zeal when he was told that if he unpacked the gear he would have to repack it himself. Only after the timely appearance of A/C C. G. Chapman and a senior Congolese official secretly summoned to the airport from Leopoldville, was the crisis ended and the *Yukon* and its shaken crew released.

This was but one of the many incidents which have plagued UN operations since that cosmopolitan force of civilian and military personnel first arrived in the Congo in the summer of 1960. But, in spite of all the trials and tribulations the ONUC, which is now entering its fourth year of operations, has done much to bring stability to that troubled land. And the RCAF officers, NCOs and airmen who have served, are serving or will be serving in the Congo can take justifiable pride in their role as peace-makers.

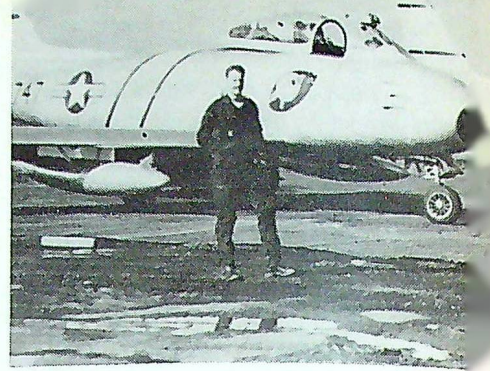


Several officers of various UN forces serving in the Congo admire the RCAF's first *Yukon* to arrive at N'djili airport.



In Korean Skies

By FLYING OFFICER H. A. HALLIDAY
Directorate of Air Force History



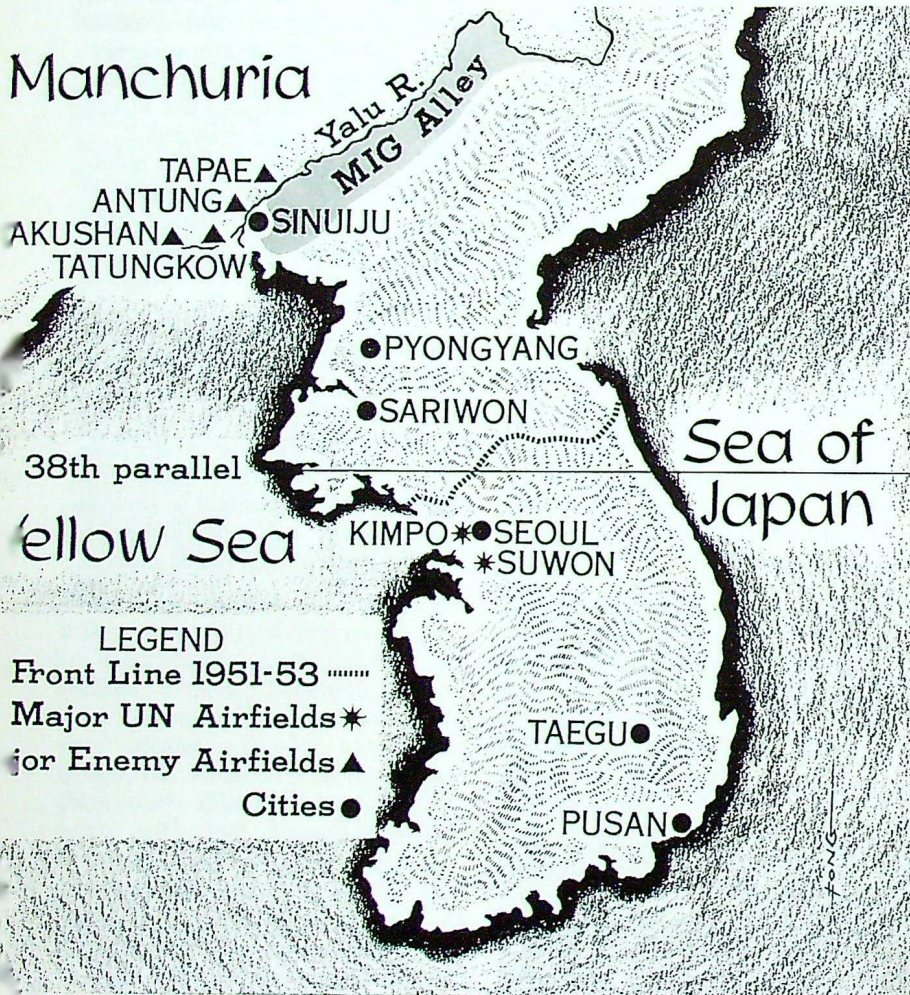
Second of Two Parts

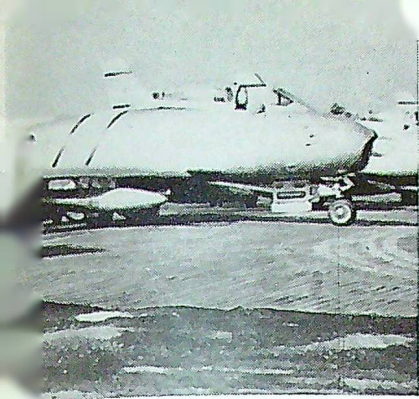
THE MIG pilots encountered in the Korean War of 1950-53 were of two kinds, very good and very bad. There seemed to be no happy medium. The skilled pilots were dubbed "honchos" (Japanese for "boss") and the others were known as "students". From time to time the calibre of the enemy pilots would start to rise, then fall off again as a new group appeared. Enemy units appeared to rotate frequently, either through decimation in combat or to make way for combat training of more pilots.

Inexperienced Communist pilots were reluctant to take evasive action. Some chose to sit tight in their cockpits, fearing to expose their persons to gunfire. Their aircraft would be shot from under them, and they would then save their lives by ejecting. These low calibre pilots were named "jackpot flights".

Flying Officer S. B. Fleming's official report is worth quoting on this aspect:

"Now and then, Dentist Charley (code-name for a USAF controller) offered an additional service to the F-86 formations, that of providing a clue as to the nationality of the enemy pilots. When he called 'Jackpot Flight over Anju' he implied that the Anju-bound MIGs were manned by North Koreans of low pilot ability and would provide





Sabres at Kimpo airfield, South Korea, in 1952.

a field day for the 86s that could track them down. When the 86s descended like vultures on the rarely-seen North Korean formations, the latter would break up and scatter, becoming easy meat for the well-disciplined pilots of the USAF. These 'Jackpot Flight' members would demonstrate seat ejection at the slightest excuse, often before a shot was fired. It was nothing for a North Korean wingman to bail out simply because he had seen his leader set the example, or for another pilot to do likewise because he had broken too hard and his *MIG* had flicked into a spin."

Not all the enemy pilots were so bad. The "honchos" sometimes made life miserable for *Sabre* pilots, and would stick to a *Sabre* through endless manoeuvres and screaming dives. Had the enemy had more "honchos" and better aircraft, the air war might well have been harder for the UN.

Both sides used a variety of tactics. The *MIGs*, flying in large formations, resorted to hit-and-run methods. While one formation acted as decoys, another group would fly behind and either above or below, ready to dive or climb into the *Sabres* which took the bait. In other cases, the *MIGs*, flying high above the *Sabres*, would be vectored over them by the efficient enemy controllers and then pounce, sometimes through clouds. At times the enemy pilots experimented, resorting to varying types of formations and even trying head-on attacks.

The basic *Sabre* formation was

the "Finger Four" — two elements of two aircraft each. These flights were usually spaced in time and altitude. When one flight spotted *MIGs* it called in the others and attacked. It was not unlike a controlled street fight, where everyone rushed up to take part.

The heart of the system was the two-plane element, with the leader and wingman. The element leader did most of the shooting while the wingman guarded his tail. Wingmen had fewer chances to fire, and they did not attack *MIGs* on their own, leaving the leader uncovered.

The selection of element and flight leaders was made on the basis of experience. Normally, a pilot flew about 20 missions as a wingman before being made an element leader, and 20 more as an element leader before being upgraded to flight leader. The number of missions varied according to the individual pilots themselves. Flight Lieutenant J. C. A. Lafrance, for example, shot down his *MIG* on his first mission as an element leader. Having shown that he could handle himself in a dogfight, he was quickly made a flight leader.

The number of victories credited to RCAF personnel was necessarily small because of their short tour — 50 missions as against the standard American tour of 100. It was not until near the end of their tours that

the Canadians became element and flight leaders, and as noted, these were the positions that gave the best opportunities for firing. Members of the RCAF were in Korea to gain enough combat experience to make them useful to the service in passing on their knowledge. No broader aims were planned. Nonetheless, the abbreviated tour was slightly disruptive for the USAF squadrons, for it meant that a few RCAF pilots were promoted to lead positions to the detriment of USAF fliers, and then these element and flight leaders were transferred just as they were becoming experienced in jet combat.

The system of confirming *MIGs* destroyed was strict and comprehensive. A pilot who claimed a victory had to have it witnessed by another pilot, or else have his claim backed up by clear gun-camera film. On occasion the gun-cameras gave trouble, the film refusing to run. At least one of the Canadians saw a *MIG* crash after he had fired on it, but could not be credited with a victory because the crash was not seen by another pilot, while the gun-camera developed a malfunction. In such cases the claims were downgraded to "probably destroyed" or "damaged".

RCAF personnel in Korea came under the operational control of the USAF wings, and while attached

to these wings they were recommended for a number of American decorations. American fliers were normally awarded the Air Medal after 20 missions, with an Oak Leaf Cluster after 60. In addition, there were awards of the American DFC for particularly outstanding achievements in combat.

In view of the shorter tour which the Canadians served, plus the fact that they would generally qualify for the Korean War Medal and the United Nations Service Medal, the Air Council moved to restrict the number of awards made to members of the RCAF. The policy, as laid down in Dec. '52, set criteria for the award of the Commonwealth DFC, and for the acceptance of the American DFC and Air Medal. No pilot would be eligible to accept more than one US decoration. The exception was S/L J. A. O. Lévesque, who had been given two awards by the Americans before the rotation program to Korea came into effect.

The only RCAF pilot to win a Commonwealth award for gallantry was F/L E. A. Glover. Glover was another veteran of World War II, having flown *Hurricanes* and *Typhoons* before being shot down and taken prisoner in May '43. In June '52 he joined the 334th Sqn. at Kimpo. Up until 26 Aug. he never saw a *MIG*. From then until the end of Sept. he saw them almost every day.

He opened his scoring on 30 Aug. by damaging two *MIGs*. On 8 Sept. he was flying No. 4 position in a flight which got into a scrap with two *MIGs*. The enemy turned sharply to starboard, putting Glover in the best firing position. He opened up on the pair, scoring hits all over the wingman. The two *MIGs* went into a screaming dive, but Glover stuck with them from 40,000 to 15,000 feet. The trailing *MIG* tried to pull up, started to spin, and crashed. Glover went after the sec-

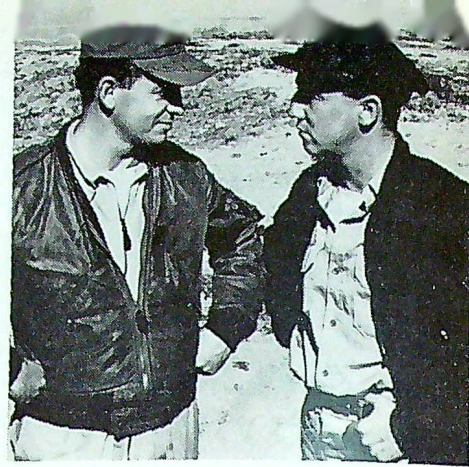
ond, saw strikes, but had to break off as the damaged enemy plane streaked into Manchuria.

The next day a force of *Thunderjets* with *Sabre* escort attacked the North Korean Military Academy at Sakchu. The strike stirred up a hornet's nest, and no fewer than 175 *MIG-15s* tried to break up the raid. Six *MIGs* were shot down, one of them by F/L Glover. The enemy fighter was closing in on some *Thunderjets* when Glover sneaked in behind and set it on fire.

On the 16th he was leading a flight of three *Sabres* which piled into 20 *MIGs*. Glover set one on fire and it dived away spinning. The *MIG* became Glover's third confirmed victory.

Flight Lieutenant Glover completed his tour in Oct. '52. He was subsequently decorated with both the American and Commonwealth DFCs, the only member of the RCAF to win the latter when this country was technically at peace.

Two pilots were posted to Korea in July, F/L R. E. Lowry and S/L (now W/C) J. D. Lindsay. The former had joined the RCAF in 1943,

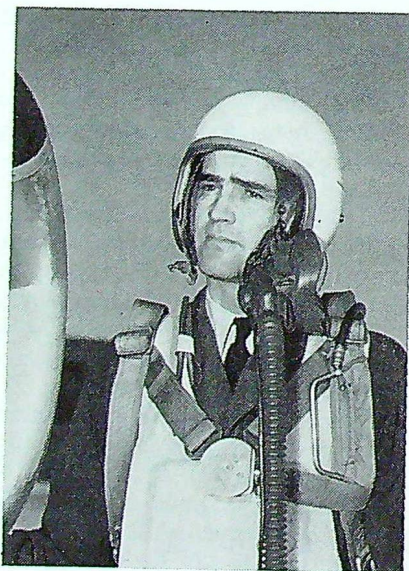


Capt. L. W. Lilley and S/L E. G. Smith

but the war had ended while he was on operational training. Korea was his first experience in combat. He was assigned to the 25th Fighter Sqn., flew 20 missions before completing his tour in Nov. '52 and returned to No. 430 Sqn., RCAF.

Squadron Leader Lindsay was another example of the Old School of Fighter Pilots. During the war he had flown *Spitfires* with No. 403 Sqn. and had won the DFC after shooting down three *ME 109s* in one sortie. He was the most experienced RCAF fighter pilot so far in Korea,

F/L E. A. Glover



S/L J. D. Lindsay





F/O A. Lambros

with seven German fighters to his credit. He soon showed that he had lost none of this touch. After only four missions he was made an element leader.

Lindsay attracted the name of "MIG Magnet". By the time he had completed 20 missions he had had five engagements with MIGs, and had damaged two on 5 Sept. After his 20th sortie he was presented with a bottle of "Mission Whiskey" and made a flight leader, a promotion which opened up new opportunities.

W/C R. T. P. Davidson
(World War II photo)



On 11 Oct. he was leading a flight of four Sabres when he spotted 12 MIGs above him. He started to climb while the MIGs swept in, trying to cut the Sabres off from base. Lindsay singled out the last four MIGs and led the Sabres into the enemy formation, shooting down one MIG. His victory brought to three the number of MIGs downed by the 39th Sqn. and six downed by all Sabres that day. It had been his 29th mission.

On 25 Oct. he damaged his third MIG. As his tour drew to a close it appeared that he would have to settle for that. November was a slack month. The enemy used the Manchurian sanctuary more than they had in September and October.

He was flying his 49th mission on 26 Nov. with 2/Lt. H. E. Fischer as his wingman. At 46,000 feet they attacked a force of 21 MIGs. Two enemy aircraft broke right in a climbing turn. Lindsay shot one down — his second. Fischer also got one, the first of 10 which he would eventually destroy. Lindsay was awarded the American DFC.

Going back to August, S/L E. G.

Smith was selected as the exchange pilot for that month. An ex-bomber pilot with the DFC, Smith was awarded the American Air Medal and completed his tour with the 334th Sqn. in Dec. '52. Although he made no claims, the experience of S/L Smith does point up the importance of the wingman. He frequently flew with the American ace, Captain L. W. Lilley. He was Lilley's No. 2 on 14 and 16 Sept. when the American shot down his third and fourth MIGs.

September 1952 brought another colourful RCAF pilot to Korea, W/C (now G/C) R. T. P. Davidson, DFC. He had joined the RAF before the war and had a string of German, Japanese, and Italian aircraft to his credit. Flying with the 335th Sqn. out of Kimpo, he had ten brushes with MIGs and, in his own words, "made a couple of them smoke". The air war had gone into a momentary lull at that time, however, and he was unable to add further to his World War II record before returning to Canada in December.

Next up was F/O (now F/L) A. Lambros. He was fortunate enough to be there when the enemy "students" gained more confidence and became increasingly aggressive. During his tour he damaged two MIG-15s, one on 22 Jan. and the other on 31 Jan. '53.

So far the Canadians had been fortunate, having lost none of their numbers. In mid-Nov. '52 S/L A. R. Mackenzie was posted to Korea, where he joined the 39th Sqn. at Suwon. Ominously, he was the 13th pilot sent under the rotation program. Mackenzie was another experienced pilot, having won the DFC in Europe and destroyed 8½ German aircraft. He flew four missions without seeing a MIG.

It was different on 5 Dec. '52. That day he was flying an F-86F, acting as wingman for Major Jack Saunders. At 40,000 feet they ran

S/L A. R. Mackenzie

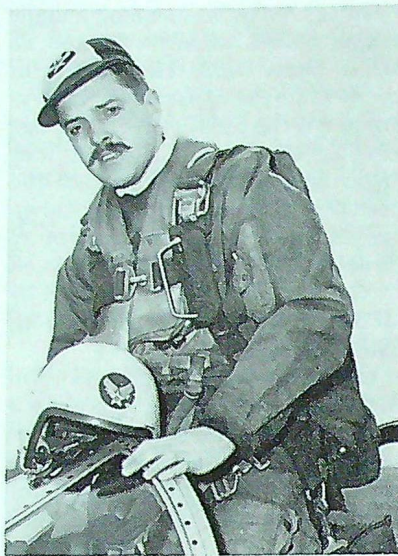


into 20 MIGs. The enemy fighters closed in all directions, and in a few seconds Mackenzie became separated from Saunders. Suddenly, a burst of cannon fire tore off his canopy and knocked out the controls. At 40,000 feet, Mackenzie baled out into the bitter cold of the North Korean sky.

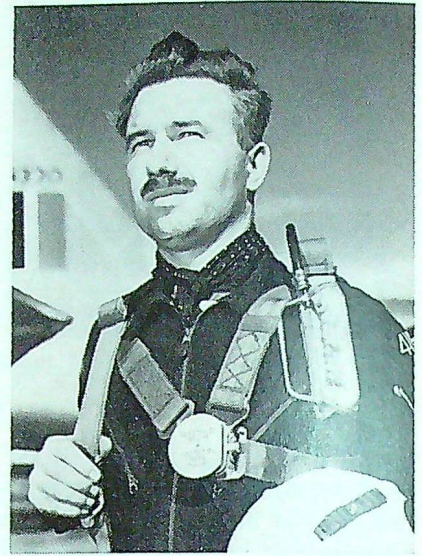
He landed in a Korean field where he was almost immediately captured by Chinese soldiers who took him to Manchuria. At first he was treated well and his captors kept assuring him that he would soon be home. In fact, he was not to be freed until December 1954, two years after his capture and 17 months after the Korean Armistice. He was to endure countless interrogations, poor food and enemy attempts at brainwashing. He was to spend 465 days in solitary confinement and lose 70 pounds. Not until Apr. '54 was he permitted to write letters to his family. Squadron Leader Mackenzie learned about Communism in the hardest way possible, yet emerged with his sense of humour intact. Moreover, on his release he was able to provide USAF authorities with information on American airmen who were still being held captive by the Chinese, including Captain Harold Fischer, Lindsay's former wingman.

Meanwhile, the Korean war went on. Flight Lieutenant (now S/L) F. W. Evans joined the 334th Sqn. in Dec. '52, and F/L (now W/C) G. H. Nichols joined the 16th Sqn. in Jan. '53.

Evans was another veteran of World War II, having won the DFC with No. 421 Sqn. In Korea he often flew with such aces as Col. James Jabara and Captain Manuel Fernandez. The latter was probably the best shot in the war, sometimes hitting MIGs at a range of almost 1000 yards, and Evans described him as "the wildest of them all." Evans was wingman to Major F. L. Smith when, on 2 Mar., the American de-



F/L G. H. Nichols



S/L J. MacKay

stroyed the first of 4½ MIGs which he was to shoot down. He also did a bit of straffing and destroyed one locomotive and four boxcars.

Nichols had a little more luck in the air. On 7 April he damaged a MIG-15 during a bitter fight with "honcho" pilots. That day saw three MIGs shot down and seven damaged, but the American ace, Capt. Fischer, was forced over the Yalu and shot down. Nichols left Korea on 6 May '53.

By this time the Commander of the American 5th Air Force, General Barcus, had embarked on a program which he described as "turning the Sabres loose". A scheme of bombing prestige targets, coupled with provocative challenges issued by leaflet and radio was designed to draw the enemy out or force him to lose face.

At the same time "Operation Moolah" was initiated, by which the USAF offered \$100,000 to the first enemy pilot who would defect and bring a MIG-15 over to our side. It may have had no connection, but Russian-language broadcasts mak-

ing this offer were jammed by the enemy, while Chinese and Korean-language broadcasts were not. At the same time, the "honcho" pilots all but disappeared and during May and June '53 the hapless enemy fliers were shot down in droves. In that two-month period, 133 MIGs were shot down. Only one Sabre was lost to enemy action.

A Sabre that did go down — but not through anything done by a MIG pilot — was flown by F/O (now F/L) R. D. Carew. He was the RCAF's 16th pilot to rotate to Korea, flying his first mission on 5 April.

One day, at 43,000 feet, his engine flamed out and he was unable to get an air start. At that point Carew was a sitting duck, but the other Sabres covered him while he began a long, wallowing glide southwards. At 7000 feet he was still a long way behind the enemy lines. The UN forces controlled the sea, so Carew baled out over water. On his way down he saw two helicopters, a "dumbo" flying boat, and a friendly launch cruising around

waiting for him. As it turned out, he didn't even get his feet wet. He landed on a small island held by UN forces and was quickly flown home to Kimpo.

The last *MIG* shot down by a Canadian fell to S/L (now W/C) John MacKay, DFC, a World War II veteran with a total of 11 German aircraft destroyed, including a share in a *ME 262* kill. He arrived in Korea in Mar. '53 and was attached to the 39th Sqn. He flew his first mission on 1 April and had flown 20 by 9 May. As his tour drew to a close it began to appear that luck was not with him, for although he took part in several engagements, he was not able to claim anything.

On 30 June the air war exploded into a series of engagements which saw 16 *MIGs* shot down — the one-day record for the Korean War. In

the early afternoon MacKay was leading a flight when he saw a lone *MIG* on the tail of four friendly aircraft. He closed the range and opened fire, scoring hits around the tail section, and the enemy pilot ejected. Ten days later MacKay completed his tour and left for home.

Two other pilots were posted to Korea before the shooting ended, S/L (now W/C) W. H. F. Bliss and S/L W. W. Fox, sent in April and May '53. Both pilots were able to see action before the Armistice became effective at 2200 hours on 27 July.

In June F/O J. B. Mullin was posted to Korea, followed in July by S/L (now W/C) D. Warren, DFC. Neither arrived in time to see action. They spent the remainder of their tours ferrying aircraft or in flying patrols south of the front-

lines. Sometimes they glimpsed *MIGs* flying similar patrols only a few miles to the north. It was a strange sight, but the air war was over.

Korea was probably the last major conflict to see the old-style dog-fights. Though similar combats have since taken place in the Middle East, changing technology has made fighter vs. fighter combat technically impractical and tactically pointless. It was a form of warfare which began in 1915 in the skies of France and ended, less than half a century later, in a small corner of Asia. Canadians were participants at the first and at the last, and at all times played their part with gallantry, courage, and devotion to duty. Thus passed an era.



THE AIR FORCE FOUR

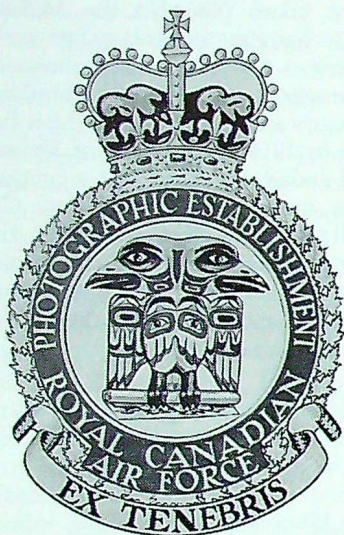
"The Canadian Air Force Four" celebrated their first anniversary this month by presenting their increasingly popular close harmony to enthusiastic audiences at RCAF stations on the west coast. Registered with the International Society for the Preservation and Encouragement of Barbershop Quartet Singing in America (SPEBSQSA) and members of the Ottawa Barbershop



Chapter, the group has proven a source of genuine musical entertainment at many public performances, including radio and television appearances, since its formation in early 1963.

Enjoying the hobby which they

hope will catch on at other RCAF units are (l. to r.): S/L Tom Madden, bass; F/L Dick Keirstead, baritone; S/L Les Burrows, lead; and S/L Doug Archer, tenor. All are regular force officers stationed in the Ottawa area.



WHITE HOUSE OF THE RCAF

By

FLIGHT SERGEANT J. F. DUGGAN
Air Materiel Command
Public Relations



Built almost 30 years ago, the "White House" at RCAF Stn. Rockcliffe houses one of the finest photo establishments on the continent.

UNLIKE its namesake in Washington, the "White House" at RCAF Station Rockcliffe is not the residence of the nation's leader. It is, instead, the home of the RCAF Photographic Establishment — whose workload is so diversified that it is one of the leading photo "plants" in North America. Soon some of its functions will be taken over by the Department of Mines and Technical Surveys, but others will remain RCAF responsibilities.

The opening of the White House in 1936 did not herald the birth of photography in the RCAF, however. In 1921 a photo section had been organized in downtown Ottawa where air force personnel operated air cameras and provided processing services for the federal air photographic mapping program. By the fall of 1927 demands on their services had increased to the point where expanded facilities became necessary. The photographers soon found themselves packing their bags and moving a few blocks away to the Jackson Building. From this location, one cold February day in

1936, a party of one officer and 15 airmen moved their equipment in open stake trucks to quarters at Rockcliffe Air Station.

A new white stucco and concrete building, erected on the government's "20 cents-a-day and tobacco" unemployment relief project, awaited their arrival. Its purpose was to provide accommodation under one roof for the Geographical Surveys General Staff of the Royal Canadian Engineers and the Photographic Section of the RCAF. The identity of the person who first labelled the new building with the nickname "White House" is not now known. However, the general appearance of the sparkling white, three storey structure was bound to stimulate some wag to place that, or a similar tag, on it. Since its opening the official name and, for that matter, even the general colour of the building have changed several times but the nickname has survived over the years.

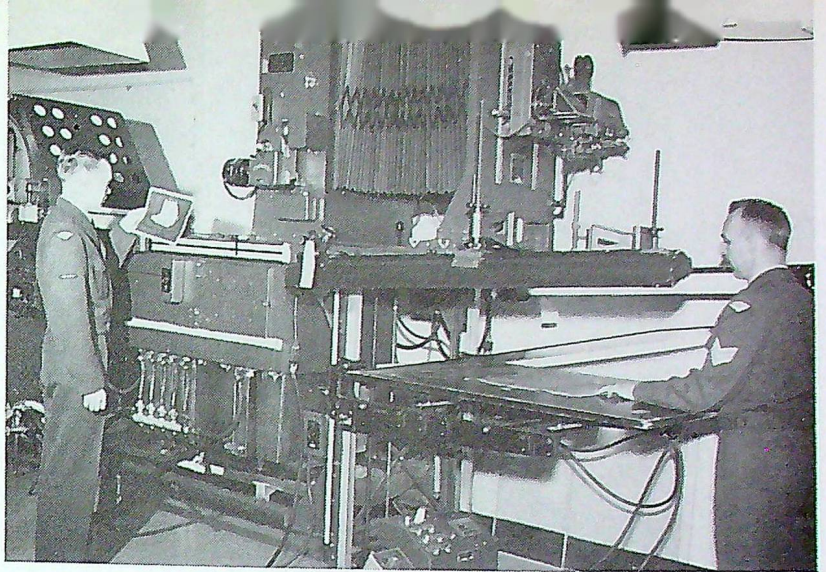
Of the 15 original airmen to occupy the Surveys and Air Photography Building (the White House's



W /C J. F. Davies, OC
Photo Establishment

first name) three are still members of the RCAF. They are F/L W. E. Slinn and WO1 J. R. Probert, both on staff at Air Materiel Command Headquarters; the third, WO1 W. H. Scott, is back doing business at the old stand as Senior Warrant Officer at the Photo Establishment. The original name of the unit was changed after eight years operation, becoming No. 1 Photo Establishment in 1944, and it was placed under the jurisdiction of No. 7 Wing. Re-organized as a component of No. 22 Photo Wing in 1947, the name was changed in 1952 when the No. was removed, and again in 1954 when a prefix was once again added and its title became RCAF Photographic Establishment, a name it enjoys to this day.

From its beginning the establishment had been concerned chiefly with mapping photography; so much so, that in 1945 when the government decided to re-activate the federal mapping program (at a standstill during the war years) on a large scale, the entire building was turned over to the RCAF. In 1946 ground photographers, comprised mainly of ex-aircrew personnel, were trained as air camera operators to man the aircraft of the expanding photo squadrons. Meantime, the staff of the White House had been gearing itself for process-



Photostat teams reproduce thousands of documents, maps and other service papers per month.

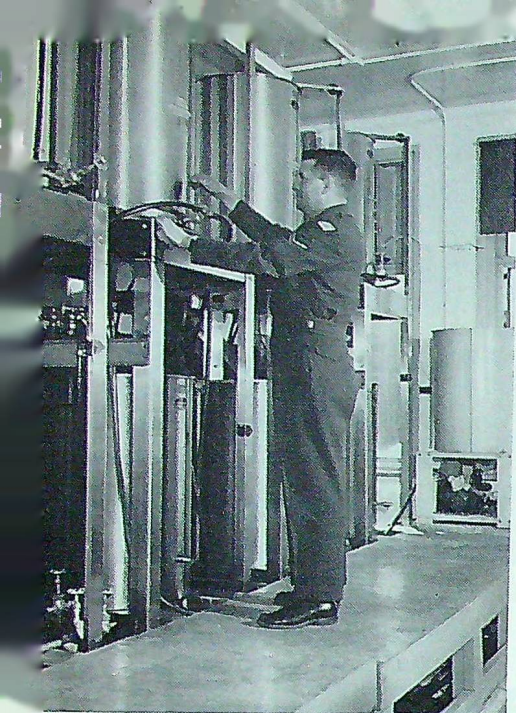


Reprint teams produced over 500,000 contact aerial survey photos for government and private agencies last year.

ing the hundreds of thousands of linear feet of film and printing the resulting negatives as the photo squadrons began filling in the blank spots on the face of Canada. Cries of "speed up production" could be heard throughout the building as NCOs urged the printers in the "salt mines" (printing rooms) to even greater effort to meet the demands of the federal cartographers awaiting the photo mosaics with which they could produce the detailed maps so necessary for the development of our northern reaches.

Photo survey operations, as such, were discontinued in 1955 as the SHORAN* technique for mapping surveys became the mode. Reprints of post-war negatives continued to be big business for the White House, however, as federal and provincial governments, mining and oil companies, universities, town planners and many other agencies find the photos of immense value for a variety of reasons. Over 500,000

* Short Range Navigation.



More than half a million gallons of processing chemicals a year are pumped to various production departments from this laboratory.



Volume printing, developing, washing and drying from a single negative onto 1000-ft. strips of sensitized paper are accomplished uniformly by this multi-printer.

reprints were produced last year by the Photographic Establishment for such agencies. Custodianship of all air survey negatives, and the reprint service provided from them, will be transferred to the Department of Mines and Technical Surveys in the near future.

A visitor to the White House soon learns that there are many other photo functions taking place in the building besides survey re-printing. The 137-member staff is prepared to undertake the photo requirements of RCAF units in the Ottawa area plus such specialized requirements that are beyond the capacity of photo sections throughout the entire air force. Added to this are orders from the Joint Photographic Intelligence Centre,* which handle all photo needs for the

Department of National Defence. A wide range of photo equipment and techniques, backed up by an extensive technical library, is required to meet the ever-varying production demands made on the White House staff. Last year's production total of just under a million items covered an immense variety of subject matter.

Over 50,000 gallons of processing chemicals are pumped to the various departments each year in order to meet the demand for black and white photography alone! The average amateur photographer, with his small enlarger, is well pleased to produce an 11 x 14 inch print in his home darkroom. He would be flabbergasted to see the track-mounted horizontal projector in the main enlarging room in the process of producing an enlargement 15 x 20 feet — and from a negative no larger

than 8 x 10 inches. A blowup of this size, although seldom demanded, presents a real challenge to the technicians since the printing paper for the purpose is only 40 inches wide. And, producing the finished product in five strips without distortion and evenly matched in tone, requires both a trained eye and definite skill. The demands on the studio staff range from portraits of heads of state and other dignitaries to photographing nuts and bolts in order to substantiate Unsatisfactory Condition Reports.

Birth and marriage certificates, educational diplomas and any other papers, required in documenting every enlistee in the RCAF, eventually find their way to the White House along with birth records of dependents born to serving personnel. Here they are photostated and forwarded to AFHQ records prior

* ROUNDEL, Oct. '63.



This Photo Establishment team can produce enlargements 15 x 20 ft. to exact scale from an 8 x 10 in. aerial negative.



Here airmen use industrial photo techniques for illustrating service catalogues.

to the originals being returned to the owner. In like fashion valuable documents and records of every size and description arrive by the thousands to be microfilmed. By this method permanent recording is guaranteed, with rapid referral available at the push of a button, and the saving in storage and filing space is immense. Eleven thousand slide transparencies were produced last year to back up various training programs by all three services and the geology departments of several universities. This section also produces colour slides for pathological studies at the National Defence Medical Centre.

There is also an ever-increasing demand for 35mm colour slides and Vu-Graph transparencies required mostly for training and instructional purposes. Over the years the number of negatives that have accumu-

lated in the fire-proof vaults has reached staggering proportions. Catalogued under a rotary-card filing system are four and a half million negatives. The main vault is composed of small rooms equipped with sprinklers which are designed to extinguish any outbreak of fire. Entering any of these rooms at random, a visitor would find neat rows of glass negatives exposed by army photographers during battle in World War I or, by lifting out a standard negative, see a surfaced enemy submarine photographed by a patrol aircraft off one of Canada's coasts during World War II. Graphic evidence of service participation in major affairs of state in Canada's history during the past quarter century can be found in these rooms. More recently, the White House has been designated as the air force's central negative library. RCAF

units now funnel selected negatives to the Photo Establishment where they will be carefully filed in the vault for historical purposes.

Not everything is "still" photography around the White House by any means. A cine section, described by the National Film Board as "very proficient," is engaged mainly in producing specialized training and documentary films for the directorates of training aids and public relations at AFHQ. Probably the best known and most widely distributed of its productions was the five-film series on arctic survival entitled "Pattern for Staying Alive." Equipped for the production of silent films only, the cine crews work closely with the National Film Board when sound production is called for.

The establishment's colour section is another department which handles the full requirement for all

Canada's armed forces. Great strides have been made in colour photography since World War II. The first colour technique used at the White House was somewhat awkward and not conducive to efficient production since it involved matrixes and dyes and required perfect register and balanced dye concentration. This technique has been vastly improved in recent years by a modern versatile system of direct projection printing of colour negatives to colour paper. This technique is similar in many ways to the black and white printing process. The colour staff at the White House has been working periodically over the past few years on an extremely interesting project. The beautifully illuminated Books of Remembrance, listing Canada's dead of the two World Wars and the Korean War, are being copied in their entirety in colour. The purpose of this project is purely a safety measure in case the originals, on display in the Memorial Chamber of the Parliament Buildings in Ottawa, are damaged or destroyed.

The great technological strides during the post-war years, particularly in the field of electronics, have made definite marks in the science of photography. Cumbersome and sometimes messy processing techniques, especially in aerial film, have been improved to a state of semi-automation, or, in some cases, fully automatic. Many of these modern improvements have resulted in an overall increase of print and negative quality compared to results of the old manual methods. Government and civilian agencies can now ask for, and get, special photo maps requiring controlled stability and accuracy from distortion within 1/100 of a millimeter — something unheard of not too many years ago!

The technological improvements in equipment are certainly not limited to aerial film processing alone. Every section in the Photo Estab-



F/L J. A. Loftus, DFC

lishment has benefited immensely in the years since the war, both in productive capability and product quality. However, while modern machines have eliminated much of the manual drudgery, the skilled technician's capability must extend beyond the know-how of operating new machinery. He must be educated in the theory and practical application of sensitometry and densitometry, the two allied subjects which provide the basis of an intelligent control of all photo processes. He must also have a broadened scope sufficient to cover all aspects of his trade.

Beyond the basic training provided by Training Command, the technician's formal and on-the-job training in the Photographic Establishment is designed to make today's air force photographer capable of staffing any photo section in the RCAF. Unit or squadron photo sections may not be as specialized or automated as those at Rockcliffe but, the graduate of the "White House of the RCAF" can cope with any of the many and varied demands on his technical skills.

WINGLESS WONDER

Of the 4,027 RCAF officers awarded the Distinguished Flying Cross during the Second World War, less than 470 are still with the regular force. Now that retirements are hitting the age group pretty heavily, wearers of the blue and white ribbon symbolic of aerial gallantry are becoming even rarer. But the rarest ribbon of all is that worn by F/L J. A. Loftus, DFC, because he doesn't have an aircrew wing.

How could it be that a man who never qualified as RCAF aircrew won this highly respected flying award? The following citation for the DFC tells the story:

"In his special duties as cine camera operator, F/L Loftus has done much valuable work providing records of some of the attacks against such heavily defended targets as Konigsberg, Brunswick and Karlsruhe. He also filmed the sinking of the German battleship *Tirpitz*. In December 1944, during an attack against Brunswick, in spite of difficulties caused by severe icing, he obtained an outstanding photo record of the attack. Throughout his operational career F/L Loftus has shown the utmost enthusiasm and his outstanding skill and determination enabled him to bring back first-rate films, in spite of adverse weather and intense opposition from the enemy's defences."

Film shot by this former public relations photographer was seen by thousands of Canadians during the war in newsreels distributed to theatres throughout the Commonwealth and, thanks to the medium of television, his graphic artistry has been witnessed by millions more who saw the National Film Board series "Canada at War".

Next month F/L Loftus, who started out as the RCAF's first operational cine photographer and became the service's only non-aircrew DFC winner, retires from his post as technical services officer of the Photographic Establishment, Rockcliffe, the unit at which he first served after enlisting in May 1937.



Red Cross Salutes No. 103 Rescue Unit

"The Canadian Red Cross Society salutes No. 103 Rescue Unit, RCAF Stn. Greenwood, in deep appreciation for years of collaboration in mutual humanitarian tasks for the alleviation of human suffering and the greater understanding of men of all nations."

So reads the Red Cross Centenary Citation presented by wartime RCAF pilot G. R. Matheson, president of the Nova Scotia branch of the society, to S/L R. H. Janzen, officer commanding No. 103 RU. The ceremony was witnessed by members of the unit, their wives and friends. Mr. Matheson commended all at Stn. Greenwood for their enthusiastic co-operation in Red Cross activities ranging from water safety instruction to blood donor clinics. He credited No. 103 with the saving of many lives by virtue of emergency airlifting of patients on mercy flights and transportation of vitally-needed Red Cross supplies.



AIR FORCE CROSS WINNER



Flying Officer D. F. Parker, a navigator with No. 416 Sqn. based at RCAF Stn. Chatham, has become the latest winner of the Air Force Cross.

During a squadron tactical exercise, F/O Parker suspected that his pilot was suffering either from hypoxia or hyperventilation, so decided to talk him down. Through persuasion and encouragement, F/O Parker directed his pilot to Chatham Control and through the random GCA that followed, electing not to declare an emergency for fear of completely unnerving his ill companion.

During the GCA run, the pilot reacted very uncertainly to directions and descended dangerously low. Realizing that his pilot would not be able to carry on much longer and that there was a strong possi-

bility that he would not be able to safely land the heavily-loaded *Voodoo*, F/O Parker nevertheless continued to assist his captain, encouraging him throughout the approach and subsequent landing. When the aircraft stopped, F/O Parker called an ambulance, shut down the aircraft and helped to remove the now-helpless pilot from the cockpit.

In the words of the citation, "F/O Parker demonstrated exceptional courage, devotion to duty and loyalty to his pilot in hazarding his own life when he might have safely ejected from the aircraft. His cool and skilful direction, which made full use of the pilot's severely limited ability, was instrumental in saving both their lives and a valuable aircraft."

The Suggestion Box

The following individuals have received awards from the Suggestion Award Committee, Department of National Defence, for suggestions which have been officially adopted by the RCAF. Photographs of winners of \$100 or over appear below. Proper procedure for submitting suggestions is detailed in AFAO 99.00/01.



S/L G. S. Hughes of Stn. North Bay suggested a modification to alert hangar doors at Air Defence Command units.

FS H. J. Moyer of Stn. Summerside suggested an improved method of cleaning *Argus* aircraft oil tanks.

Sgt. G. Fafard of Stn. Vancouver suggested an adapter for testing flush mounted static vents on aircraft.

Other award winners:

WO1 R. J. Bowes
 WO2 W. R. Whelan
 FS L. A. Steeves
 FS L. G. McLeod
 FS J. G. Dwyer
 Sgt. J. P. Y. O. Bedard
 Sgt. H. W. Wilson
 Sgt. M. W. Cole
 Sgt. J. Johnston
 Sgt. J. D. M. Sigouin
 Sgt. J. A. C. Gagnon
 Sgt. G. W. Gibson
 Sgt. W. Stan
 Sgt. J. G. Hawryluk
 Sgt. J. M. Walters
 Sgt. G. W. Patterson
 Sgt. H. G. Lee

Sgt. M. Hladun
 Sgt. G. D. Vaughn
 Sgt. H. L. Forshner
 Sgt. G. E. Franks
 Sgt. H. A. Jenkinson
 Cpl. D. L. Spencer
 Cpl. J. Harrison
 Cpl. J. F. R. Alexander
 Cpl. S. Kiraly
 Cpl. S. G. Parr
 Cpl. E. Stryski
 Cpl. E. M. Wright
 Cpl. G. R. Kelly
 Cpl. J. R. MacQuarrie
 Cpl. J. A. R. Peters
 Cpl. V. R. Gregson
 Cpl. O. K. Anderson

Cpl. G. L. Flemming
 LAC Y. C. Ouellet
 LAC J. F. Clark
 LAC G. F. Graham
 LAC C. L. Slein
 LAC G. Champagne
 LAC N. H. Gawke
 LAC J. A. Nicholson
 LAC L. W. MacLain
 LAC G. Canning
 LAC W. E. Farmer
 LAC L. R. Cranmer-Gordon
 LAC W. J. Kernaghan
 LAC R. D. Crowell
 LAC J. R. Vautour
 Mr. S. S. Eves

FROZEN FOOTBALL

EACH year the Canadian football season comes to a frenzied climax with the playing of the Grey Cup game. Possibly less well known nationally, the second annual White Cup game was played the same day at Fort Churchill under "almost ideal weather and field conditions." The temperature was six degrees below zero, the wind gusted between 20 and 30 mph, resulting in a chill factor equivalent to -49°F . The field was covered with eight to ten inches of soft lumpy snow.

To prevent injuries and to keep warm, the players wore heavy parkas, wind pants and flying boots. In addition, the East wore distinguishing sweaters. After a slam bang 90 minutes of play, the game ended in a tie. The score was zero-zero. Colonel S. Galloway, the camp commander, presented the White Cup to the teams' captains: LAC F. Hiebert for the West and Cpl. W. Phillips and LAC R. White for the East.



The officials: (l. to r.) referees PO B. H. Pert, RCN, and Cpl. W. Moir, RCAF; timekeeper Mr. W. H. Smith, DND.



The kick off: FS L. Barnes holds the "ball" for Mrs. D. H. Kuhn, wife of the RCAF unit CO.



The game was played under ideal conditions?

Presentation of the White Cup: (l. to r.) Col. S. Galloway, camp commander; LAC F. Hiebert, Cpl. W. Phillips and LAC R. White.

Cheerleaders and a "White Cup Queen" (F/O K. G. Musson, not in photo) livened up the festivities.





RCAF ASSOCIATION

This section of *ROUNDEL* is prepared by
Association Headquarters, 424 Metcalfe
St., Ottawa, Ontario.

Doubled Membership Key To 1964 Success

I would like to take the opportunity to wish all members of the RCAF Association a happy and prosperous New Year and to remind everyone that we will be celebrating our Fifteenth Anniversary during 1964.

We have had a successful year and our organization has grown in numbers and prestige. As always, a New Year represents a challenge because we enter it with the hope that it will be more successful than the last. I think 1964 will be our most successful year to date if we undertake the new membership campaign with vigour and meet our objective of 25,000 members by 1 Aug. '64.

This means that *every member* of our organization must sign up *one member*. Once this process is set in motion we should be able to increase our membership in each succeeding year and with this added strength the RCAF Association will gain prestige and authority.

As an incentive, the National Executive Council has authorized the following trophies to be awarded annually to Wings which achieve the greatest percentage increase in the following categories and to the individual who contributes most to the campaign:

- THE GRAND PRESIDENT'S TROPHY for Wings with more than 150 members.
- THE NATIONAL PRESIDENT'S TROPHY for Wings with less than 150 members.
- THE VICE-PRESIDENT'S TROPHY for the individual member who has contributed most to the membership campaign.

A scroll will accompany the Grand President's and President's trophy and Wings obtaining second and third place in the campaign will be suitably recognized.

I would like to stress the valuable services performed by our members-at-large. They joined our organization in that capacity mainly because there was insufficient membership in the area to form a Wing or simply to retain a connection with former colleagues. Members-at-large are not to feel that any contributions they may make to the membership campaign will pass unrecognized because the Vice-President's trophy is open to the entire Association membership.

However, we must not forget the aims and objectives of our organization because they are the keystone of the RCAF Association. We must promote our ideals during the membership drive so that as many prospects as possible are made aware of what we stand for.

Good luck to you all and let's make 1964 our most successful year.



HUGH CAMPBELL,
National President

APPLICATION FOR MEMBERSHIP

Here is your opportunity to increase the Association's membership: Simply have a former member of the RCAF complete this application form and, together with the annual dues of \$4.00, mail to National Headquarters, 424 Metcalfe St., Ottawa. Please write your name on the back of the application form in order that we may know the sponsor.

Wing Notes

No. 416 (Kingston) Wing, celebrating its 15th birthday in December, welcomed A/C L. J. Birchall, OBE, DFC, commandant of Royal Military College, as its anniversary dinner guest speaker.

A/C Birchall said that the RCAF Association was formed as a separate veterans' organization because the first bond drawing us together is the friendship which grew through the stress and hardship of war. This bond knows no bars of colour, race or sect. He said the RCAFA is more advanced in its thinking than most other such organizations.

Special guests on this occasion were members of the RCAF Golden Hawks and their wives.

No. 424 (Renfrew) Wing has completed two community projects: a flying field located on No. 17 Hwy. north of the town, and a public park

complete with children's playground area. The Renfrew Wing has pioneered in the development of such areas for the use of all citizens. The landing field will provide a base for a flying club where anyone who qualifies can learn to fly.

Chairman Dr. Lyons Ringrose's committee includes Bruce McPhail, Herb Rushleau, Earl Lindsay, Rob Mathews, Rita Totten, Ken Dawes, Harold Foy, Ken Ellis and Don Bingham.

No. 404 (Kitchener) and No. 416 (Kingston) Wings have both come out with completely new formats for their wing bulletins, "Wing Ding" and "The Gen," respectively. An interesting feature is the sale of advertising space in each, making the publications self-supporting.

The practice of wings exchanging bulletins is an excellent idea and does much to keep all wings on their toes.



National secretary Jack Gray presents Association Awards of Merit to James Gillespie (centre), past secretary Ontario Group, and William Caverly (right), past president Ontario Group.

Mr. - M.	Miss - Mlle	Mrs. - Mme	CHRISTIAN NAMES - PRÉNOMS				SURNAME - NOM DE FAMILLE		
RANK - GRADE			SERVICE No. - MATRICULE			DECORATIONS - DÉCORATIONS			
AIR FORCE IN WHICH I SERVED			R.C.A.F.	R.A.F.	R.A.A.F.	R.N.Z.A.F.	R.S.A.A.F.	OR OTHER - OU AUTRE	
CORPS D'AVIATION AVEC LEQUEL J'AI SERVI			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
HOME ADDRESS - ADRESSE DU DOMICILE					BUSINESS ADDRESS - ADRESSE D'AFFAIRES				
PHONE - TÉLÉPHONE					PHONE - TÉLÉPHONE				
CIVILIAN OCCUPATION OR TRADE - OCCUPATION CIVILE OU MÉTIER					YES <input type="checkbox"/>	Would you assist in forming a Wing in your Community?			NO <input type="checkbox"/>
					OUI	Seriez-vous prêt à nous aider à former une escadre dans votre entourage ?			NON

DATE

I hereby apply for membership in the Royal Canadian Air Force Association, which includes receipt of *ROUNDEL* and "Wings in Space", and enclose first annual dues of \$4.00.

SIGNATURE

Je désire, par les présentes, faire ma demande d'admission dans l'Association du C.A.R.C. qui comprend la revue *ROUNDEL* et "Wings in Space", et vous trouverez, ci-inclus, ma cotisation pour la première année.

19.....

Letters to the Editor

THE "ORIGINAL" ROUNDEL

Dear Sir:

For years I have been telling my fellow naval officers that I actually helped start ROUNDEL back in 1942 at RCAF Stn. Bella Bella on the west coast.

One always hates to part with souvenirs, but I enclose copies of the "original" ROUNDEL for use as you see fit and to prove my opening statement.

Lt. L. G. La Ramee, RCN,
14 Oatwood Ave.,
Dartmouth, N.S.

(We have delivered these copies to the Director of Air Force History for posterity. Foreword to Vol. 1, No. 1, produced in March '42, was written by S/L F. S. Carpenter, CO of the station (now A/C Carpenter AOC, MAC). It preceded the birth of the "new" ROUNDEL by 6½ years. — Editor.)

NO. 3 OTU RE-UNION

Dear Sir:

It is proposed to hold a re-union at RCAF Station Bagotville during the weekend of 6-7-8 Mar. '64, of officers who served on the staff of No. 3 AW OTU at North Bay, Cold Lake and Bagotville.

A committee has been formed to arrange the event and the first task confronting it is to attempt to contact as many former members of the unit as possible. Since they are, of course, widely scattered throughout the Service, your assistance is requested in this regard.

It would be appreciated if this letter could be promulgated in ROUNDEL. Former OTU members are requested to forward their names to the undersigned at No. 3 AW OTU, RCAF Station Bagotville, regardless of whether or not they wish to attend the re-union. Complete information concerning the event will then be forwarded to all concerned.

F/O H. A. Barr,
No. 3 AW OTU,
RCAF Stn. Bagotville, P.Q.

APROPOS ARGOT

Dear Sir:

May I move a vote of thanks to W/C Haines for "The Argot" (Nov. '63)? Did I detect his tongue in his cheek as he "passed on irregardless"?

Why indeed must all our plans and submissions be prefaced with the turgid "it is suggested that . . .", "it is further considered that . . ." and the ubiquitous "it is, of course, appreciated that . . ."? This despite Churchill's well-publicised condemnation of padding — made 20 years ago! Do we fear that unless our thoughts are masked their depth will be suspect?

. . . But all that needs to be said on the subject — and this is no disparagement of

"The Argot" — has already been said most eloquently by Gowers. "The ABC of Plain Words" should be required reading for all who would draft a service paper at any level of operation. And those of us who would plead pressure of work and lack of time may well ponder the classic apology: I am sorry this letter is so long, but I haven't had time to write a short one.

F/L J. A. McCormick,
PIN Main,
Distant Early Warning Line.

Dear Sir:

W/C Haines' article proves, as much as anything ever printed, what a need there is for a language which can be understood. First, the word "argot". Reference to GPD5 reveals that it is not very complimentary, to say the least. Second, the word "postulize" is not even included in GPD5. And finally, did the ex-W/C realize, when he wrote it, that there is no such word as "irregardless"? And did he use it regardless, due to "the speech habits of some of our air force people", to quote from his second paragraph? That must be it, because the phrase preceding it was "with traditional RCAF tenacity".

WO2 G. B. Davis,
AMCHQ/SPMO/SOED/ESA3,
RCAF Stn. Rockcliffe, Ont.

Dear Sir:

In 1952-54 I had the pleasure of working for W/C Haines at OS London, while he was Director of Officer Training. Needless to say, he was campaigning at this early date for the "cleaning-up" of service intercourse. So, it was with some remorse that I discovered the use of "irregardless" in his article.

If cornered, W/C Haines would be the first to admit that any language is a living media of communication, and as such, is constantly in a state of flux. We of the RCAF can be likened to an ethnic group, and any ethnic group has in its language its share of St. Giles' Greek.

F/L H. R. Syrett,
RCAF Stn. Winnipeg,
Westwin, Man.

(Many remarked on the unseemly use of "irregardless" by W/C Haines. We assure you he planted it purposely and is as pleased as we that ROUNDEL readers are sharp-eyed enough to have spotted this example of gobbledeygook — Editor.)

BENEVOLENT FUND BOUQUET

Dear Sir:

I would like to take this opportunity to congratulate you on such a fine magazine. This publication is very welcome indeed by an ex-airforce member like myself.

The article on the air force benevolent fund (Nov. '63) was something I am sure

certainly answered many questions members or former members of the RCAF may have wished answered.

Also your last page "aircraft album" is most interesting.

A. Fowler,
Salvador, Sask.

SABRE SUPPORTER

Dear Sir:

As an old RCAF *Typhoon* pilot I was delighted to see at long last a picture of a *Typhoon* in the Aircraft Album (Nov. '63). I am sure you won't mind me disagreeing with the reference to the instability of its Napier Sabre engine. In over a tour of duty with 124 Wing (RAF) in 2nd TAF it never let me down. Of course, this performance may have been attributable to the skill and determination of our wonderful RAF ground crew.

J. B. Friedlander,
Chateauguay Heights, Que.

BAGOTVILLE MERMAIDS

Dear Sir:

While congratulating Senneterre's male swimmers for winning the 1963 RCAF Marathon Swim Contest (Nov. '63), I bring to your attention the fact that Bagotville's airwomen are very proud of their record in winning the female section of that same event.

Nineteen out of our small crew of 30 airwomen and nursing sisters participated, swimming a total of some 93 (14,880 marathon) miles. Surely this is quite an accomplishment from a handful of fragile women! Cpl. A. M. McGregor won the greatest accumulative individual swim with 75,000 yds and LAW E. M. Andrews completed the longest continuous swim with a distance of 17,600 yds.

F/O J. A. Blackaby,
Recreation Officer,
RCAF Stn. Bagotville, P.Q.

KOREAN CORRECTION

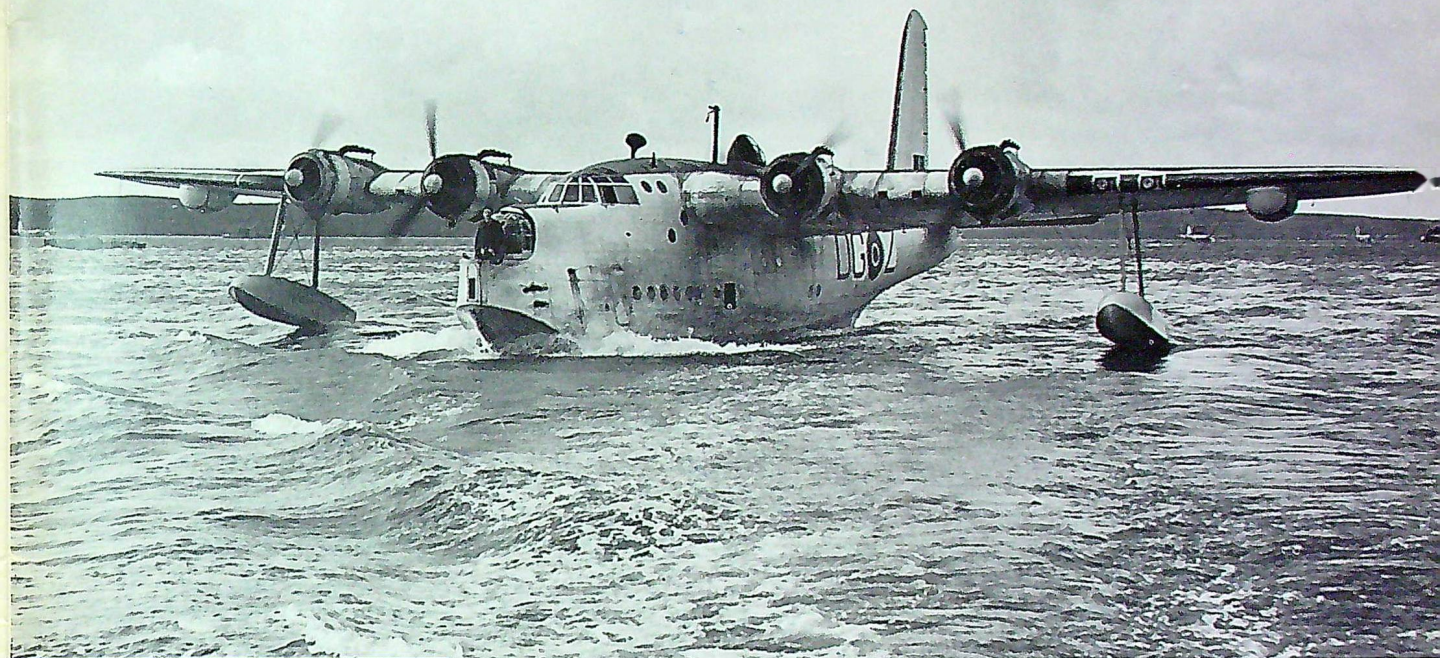
Dear Sir:

Reference "In Korean Skies" (Dec. '63), the caption to the picture of F/Ls Lafrance and Spurr receiving their DFCs is misleading. The picture, in fact, was taken at the presentation ceremony held at 1 (F) Wing, Marville, in February 1957. I was there, as commander of the honour guard! Incidentally, is that General Taylor making the presentation or it is General Lee?

So much for the criticism — but I do enjoy ROUNDEL and would like to add my name to your long list of appreciative readers.

F/L A. L. Gunn,
RCAF Stn. Camp Borden, Ont.

(We goofed (again). F/Ls Lafrance and Spurr did indeed receive their Korean decorations at the place and time you mention. The awards were presented by USAF Maj.-Gen. R. M. Lee, then 4ATAF Cdr. — Editor.)



AIRCRAFT ALBUM:

Short Sunderland

Developed from the "C" Class Empire flying boats used commercially by Imperial Airways, the *Sunderland* entered service with the RAF in 1938. *Sunderlands* in Coastal Command participated in the destruction of 31 U-boats.

Two RCAF squadrons in Coastal Command, No. 422 and 423, operated *Sunderland III*s. They took part in the sinking of five U-boats, and damaged two others so badly that they were forced to return to port. In addition, one submarine was sunk after a *Sunderland* of No. 423 Sqn. homed two RCN destroyers onto the enemy.

The *Sunderland III* was powered by four Bristol Pegasus radials of 1065 h.p. each. The top speed was 210 m.p.h. and cruising range was 2,900 miles at 130 m.p.h. The span was 112 feet 9 inches, and length 85 feet 4 inches.

Roger Duhamel

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