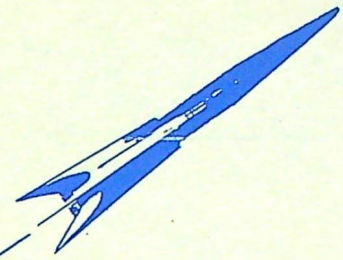




THE

Roundel



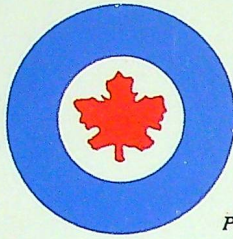
35th
ANNIVERSARY
of
the
R.C.A.F.

50th
ANNIVERSARY
of
POWERED FLIGHT
in CANADA

1959

JAN. - FEB.

1909 1959



T H E

Roundel

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DEDICATION

We are pleased to devote our first issue of 1959 in its entirety to the observance of the 50th Anniversary of Powered Flight in Canada and the 35th Birthday of the R.C.A.F.

It is obviously impossible in 32 small pages to cover adequately all the events of the past 50 years of Canadian aviation. However, we do trust that this special issue of THE ROUNDDEL will serve as a tribute to the men and women, especially those in R.C.A.F. uniform, who over the years helped forge the heritage which is ours today.

The Editor.

Views expressed in THE ROUNDDEL are those of the writers expressing them. They do not necessarily reflect the official opinions of the Royal Canadian Air Force.

WHEN John McCurdy made his historic flight over the ice-covered surface of Baddeck Bay, few people visualized the part aviation would play in the development of Canada in the following 50 years. To most of McCurdy's contemporaries the aeroplane was a new-fangled gadget, a mechanical device with which man was trying to emulate the flight of birds. The *Silver Dart* attracted little public interest, for it appeared to have practically no potential for military or civil operations.

Looking back, we can readily understand public reserve. A cumbersome new vehicle operating in a new medium could hardly be expected to inspire confidence in the future of aviation.

To us, the aeronautical achievements of the past five decades appear logical. We can follow, step by step, the development of the aeroplane from a rudimentary biplane with a 50 horse-power motor to the modern thin-winged jet with motors that generate more than 20,000 pounds of thrust each. It makes sense to us because we have the advantage of years of experience and study. Hindsight comes easily. It requires neither special attributes nor imagination. But to the aerial pioneers—men like McCurdy, Alexander Graham Bell, Baldwin and the host of Canadians who earned for Canada a high place in world aviation—imagination, perseverance and foresight were required to stimulate interest and faith in the capacity of the aeroplane to make a substantial contribution to the Canadian scene.

In 1909, hindsight was of little use in aviation. There was not much to see in retrospect. Today there is a great deal to look back upon in civil and military aviation in Canada. The aeroplane has played a leading role in opening up many parts of Canada and in keeping Canada militarily strong. It has been much more than a gadget; it has been a strong factor in developing Canada's natural resources, industry, communications, and military power.

The celebration of the 50th Anniversary of Powered Flight in Canada and of the 35th Anniversary of the Royal Canadian Air Force brings into focus the achievements of the past. At the same time, it points up the challenge of the future: the continuing conquest of the air and the exploration and exploitation of space.

The past 50 years of Canadian aviation have been exciting and productive. There is every reason to believe that the years ahead will be equally exciting and productive.

We in the R.C.A.F. are proud to have had a key part in the development of aviation in Canada. We join wholeheartedly with other air-minded people and organizations in the salute to the resolute pioneers who insisted that the aeroplane would assist materially in Canada's growth.

Hugh Campbell

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(Hugh Campbell)
Air Marshal,
Chief of the Air Staff



The Silver Dart.

THE BEGINNING

NESTLED in the highlands of Cape Breton Island is Beinn Bhreagh, Gaelic for beautiful mountain, the summer home of the late Alexander Graham Bell and the cradle of Canadian aviation.

At Beinn Bhreagh, which is situated near the village of Baddeck, N.S., Doctor Bell and four associates banded together, in 1907, to form the Aerial Experiment Association (A.E.A.) for the express purpose of building "a practical aerodrome (sic) driven by its own motive power and carrying a man".

In addition to Dr. Bell the other members of the A.E.A. were: F.W. Baldwin, who became the first Canadian to make a successful aeroplane flight (1908) and the first man to make a public flight in

America; J.A.D. McCurdy who was the first British subject to fly in the British Commonwealth (1909); Lt. T.E. Selfridge, U.S. Army, who had the dubious honour of being the first person to be killed in an aircraft accident; and Glenn Curtiss, originally a motorcycle manufacturer, and eventually a successful aircraft builder.

The members of the A.E.A. divided their time between Baddeck, N.S., and Hammondsport, N.Y. which was their spring and summer headquarters. At Baddeck experiments started with kites of an unusual design and construction. Known as tetrahedral kites they were built in a variety of sizes and shapes but all were composed of a number of tetrahedral cells. At first they were launched in the

usual way by running into the wind trailing the kites on a string. As they grew in size, however, first a man on horseback was needed to get them airborne and later the kites were flown behind a fast motorboat, taking off from and landing on Bras d'Or Lake. Finally the *Cygnét 1*, a kite with a 42 foot span, carried Lt. Selfridge aloft to a height of 168 feet. Dr. Bell preferred to make his flying experiments off water since he believed that the inevitable accidents would not be followed by consequences more serious than a ducking for the pilot and the immersion of the machine or, as Dr. Bell stated in 1907 in the National Geographic Magazine, "if the man is able to swim and the machine to float upon water little damage need be anticipated to either".

(L. to r.) Glenn Curtiss, J.D. McCurdy, Alexander Graham Bell, F.W. Baldwin, Lt. Thomas Selfridge.



*The A.E.A. was
delivered
to his
hon.*

THE HISTORIC FLIGHT

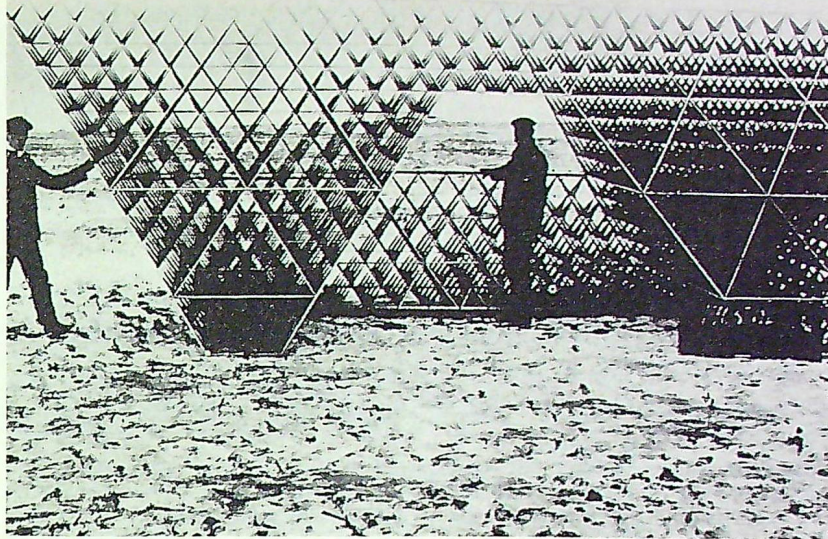
Doctor Bell and his associates did their own independent research as very little was known, or written, about the science of flight and successful fliers such as the Wright brothers kept their information to themselves. As the A.E.A. members acquired knowledge and experience, gained from Dr. Bell's kites, they undertook the construction of self propelled aircraft or aerodromes, as Dr. Bell insisted on calling flying machines. They built four: the *Red Wing* and the *White Wing*, which derived their names from the colour of their wing fabric; the *June Bug*, so called because the aircraft was built during the month of June (the *June Bug* was later called the *Loon*, when fitted with pontoons); and finally, the *Silver Dart* which, from the viewpoint of Canadian aviation, was the most important aircraft of the four.

On 12 March 1908 the *Red Wing*, the A.E.A.'s first machine, was ready for flying. It was rolled out onto the ice on Lake Kenka near Hammondsport, N.Y. and flown by Baldwin in the first public flight of a heavier-than-air machine in the U.S.A. On 23 February 1909, McCurdy lifted the *Silver Dart* off the frozen lake of Bras d'Or for a three-quarter of a mile flight to become the first British subject to fly in the Commonwealth.

ADVANCED CONCEPTS

During the year and a half of its existence copious records of the A.E.A.'s experiments were kept by Dr. Bell and hundreds of notebooks and weekly bulletins issued by the A.E.A. made up a priceless account of the period from an aeronautical viewpoint. Among the almost endless experiments carried out by the Association a few "firsts" in the field of aviation were recorded. The most important of these was the aileron which was patented in 1909. This aileron provided the first satisfactory means of lateral control in an aircraft.

Dr. Bell never doubted the feasibility of powered flight but his earliest vision of a flying machine



Tetrahedral kite.

was what we know today as a helicopter. As he channeled his energies to this end he was, as usual, far in advance of his time.

Among his many experiments to improve his fledgeling product Dr. Bell built two, then three-bladed propellers, contra-rotating propellers and propellers of laminated wood, 'props of variable pitch and variable area. With propellers as with many other things he undertook, Bell was years ahead of his time. The world simply did not have the tools or the materials to produce the creations of his advanced thinking. For example, Bell made experimental turbo-props and rocket-props and, contrary to the popular belief that jets are a phenomena of the post-war era, Dr. Bell, in 1909, built the *Dragon-Fly*, a model turbojet aircraft.

He experimented with various wing shapes and produced both swept and delta wing configurations, which are almost identical to those used on today's latest aircraft. To Bell also goes credit for building the first seaplane. The A.E.A. were the first to use doped fabric on their aircraft and the first to use tricycle undercarriage. Another first, and one which greatly added to the pilots' comfort, was

the cockpit on the *Red Wing*. Prior to this seemingly obvious improvement, early day aviators perched on the open wing exposed to wind and weather.

MILITARY NOT INTERESTED

On 31 March 1909 the A.E.A., having accomplished its objectives, officially dissolved but in August of that year McCurdy and Baldwin formed the Canadian Aerodrome Company which was the first aircraft manufacturing plant in Canada. One of the first acts of the new company was to ship the *Silver Dart* to Petawawa, Ontario, to demonstrate to the Army the military potential of this machine. Three flights were made successfully but on the fourth flight the *Silver Dart* crashed. The Canadian Aerodrome Company built a tetrahedral kite for Dr. Bell, a monoplane for an American customer, and the *Baddeck 1* and the *Baddeck 2*. The *Baddeck 1* was also sent to Petawawa but, like the *Silver Dart*, it crashed and members of the Militia Council lost interest in the project. Subsequently the Canadian Aerodrome Company folded.

As a result, when the First World War began, Canada had neither pilots nor aircraft in her armed forces.

The Canadian Aviation Corps

AN ALL but forgotten chapter in Canada's military air history is the story of its first flying unit, the Canadian Aviation Corps of 1914.

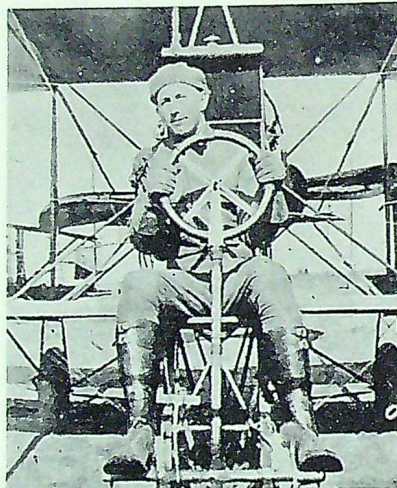
The exact manner by which the corps came into existence is something of a mystery but presumably it was the result of personal contact between Colonel Sam Hughes, the Minister of Militia and Defence, and the two men who comprised the corps. Headquarters in Ottawa knew nothing about it until it was *fait accompli*.

The corps was never officially authorized as a component of the Canadian Contingent and its two members were never attested in the Canadian Expeditionary Force. The authority for this pioneering air corps was simply a memo bearing the initials "S.H." and the whole status of the corps and its personnel was a puzzle to headquarters.

CORPS' CREATION

On the outbreak of war Col. Hughes sent a cablegram to the British Secretary of State for War, offering to provide six expert aviators from Canada. The War Office accepted the offer with the comment that more might be required later. Six seemed a very modest number, but it was more than Canada could provide at the time. There were some amateur airmen in Canada at the time trying to fly home-made aircraft but the number of bona fide pilots could be counted on the fingers of one hand. So, instead of six expert aviators Col. Hughes' Canadian Aviation Corps comprised only two officers, Captain E.L. Janney, and Lt. W.F. Sharpe, one aircraft and no ground crew.

Lt. Sharpe, Canada's first military airman, learned to fly at the Curtiss School of Flying at San Diego, California, and in January 1914 he received his pilot's license from the American Aero Club. He was "barnstorming" around Chicago when the war began and returned to Canada immediately to offer his services as an aviator. There is nothing in the records to show that Janney was, in September 1914, a qualified aviator or that he had any flying experience. The two men went to Valcartier camp, the assembly point of the Canadian



Canada's first military pilot, Lt. W.F. Sharpe.

forces and there, on 16 September 1914, Col. Hughes initialled a memorandum which stated that "Mr. E.L. Janney is appointed provisional commander of the Canadian Aviation Corps with the rank of Captain, and is authorized to purchase one biplane".

INAUSPICIOUS CAREER

The aircraft, a *Burgess-Dunne* biplane complete with sweptback wings, was purchased in Massachusetts and flown to Quebec City. That trip, punctuated by several forced landings, was the aircraft's first and last flight as Canada's

pioneer military flying machine. With its engine practically un-serviceable and no time to effect repairs, the *Burgess-Dunne* was loaded onto a troop ship and sailed for overseas. After arriving in the U.K. Capt. Janney drew up a scheme to expand the C.A.C. into a "one-flight squadron" consisting of four aeroplanes, one commander, three pilots, three observers, seven sergeants, and 32 mechanics.

The cost of this corps for one year he estimated at almost \$117,000. Such a proposed expenditure shook the authorities and when the captain returned to camp after a rather unduly protracted absence on an inspection trip of R.F.C. stations he was permitted to resign his appointment and was sent back to Canada. This appears to have been his only appearance in orders.

So the provisional commander came home. When Janney landed at Halifax the reporters were quite impressed by an aviator who had just "returned from the front" where he had "been doing scout duty for the British Army, before returning to Canada to organize a squadron of aeroplanes to be built and equipped in Canada".

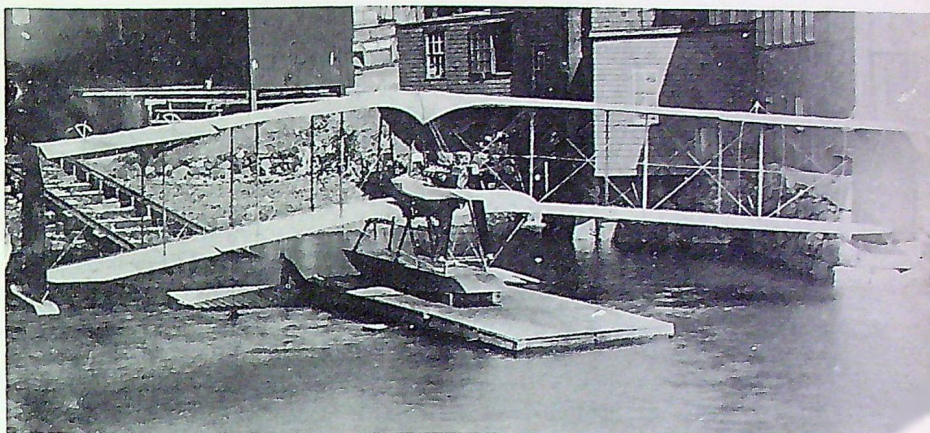
FIRST AIR CASUALTY

Meanwhile, the second member of the Canadian Aviation Corps had been engaged in flying. After some instruction in England, Lt. Sharpe went to France and then returned to Britain for further training. On 4 February 1915, while flying with the R.F.C., he crashed and was killed. The body of Canada's first military aviator and first air casualty was later brought back to Canada for interment.

With the resignation of Capt. Janney and the death of Lt. Sharpe all that remained of the C.A.C. was the *Burgess-Dunne* aeroplane. What had become of it was a

mystery. When the 1st Canadian Division left Salisbury Plain for France in February 1915 the aeroplane was left behind and forgotten. Several months later, Canadian authorities, unwilling to believe that it could have completely disappeared, put a special investigator on the case. The investigator found a few parts which were absolutely worthless even for scrap iron and the only items that could be salvaged from Canada's first military aeroplane were two inner tubes which had been left at a pub.

Three years passed before Canada again attempted to organize an air force.



Canada's first military aeroplane, a Burgess-Dunne.



BISHOP, BARKER AND MACLEOD

Canada's Three First World War Aerial V.C. Winners

As the first feeble rays of light paled the eastern horizon on 2 June 1917, a *Nieuport* scout streaked through the dawn on a deadly mission. Captain "Billy" Bishop, who had already distinguished himself in aerial combat, was about to become the first Canadian pilot to win the Victoria Cross.

Flying alone 12 miles behind the front lines, Bishop boldly attacked a German aerodrome as seven aircraft on the ground prepared for flight. As quickly as the German fliers took off they were sent spinning down in flames by Bishop who, ignoring the heavy ground fire which badly shot up his aeroplane, raced back and forth across the airfield pressing home his attack. In the words of the official citation Captain Bishop showed "conspicuous bravery, determination and skill".



The Victoria Cross.

From the outbreak of war both of the British air services, the War Office's Royal Flying Corps (R.F.C.) and the Admiralty's Royal Naval Air Service (R.N.A.S.) had turned to Canada as a fertile source of recruits, and missions had come out to Canada to enrol personnel. In the early period of the war the two services would accept only applicants who were already trained pilots. Of these there were very few, and the hundreds of young Canadians who sought to volunteer for the R.F.C. and the R.N.A.S. were first required to enter a civilian flying school and obtain the necessary certificate at their own expense (at approximately \$400 for 400 minutes flying). Many of these potential pilots enrolled in the Curtiss School of Aviation at Toronto Island and Long Branch which, under the management of



Captain "Billy" Bishop, V.C.

Mr. J.A.D. McCurdy, graduated 129 pilots in 1915 and 1916 and gave partial training to several hundred more pupils.

R.F.C. SCHOOLS

As these civilian schools were inadequate to meet the demand for rapid expansion of the British air services and as sufficient facilities were lacking at home, the R.F.C. early in 1917 set up its own training establishment in Canada with headquarters at Toronto and training wings at Camp Borden, North Toronto and Deseronto. The total number trained in Canada during the schools' two years of operations was 3135 pilots and 137 observers. Thousands more Canadians were transferred to the British air services from the Canadian Expeditionary Force overseas.

Canadians flew on every type of operation and on every front of the war. They distinguished themselves as fighter pilots, day and night bombers, flying-boat pilots, army co-operation crews and balloon observers. They flew over the Western Approaches, the English Channel and the North Sea, over the Western Front in Belgium and France, over the Italian Front, the Adriatic and the Mediterranean, over Macedonia and Thrace, the Aegean Sea and the Dardanelles, over Egypt, Palestine and Mesopotamia, over the Red Sea and the Indian Ocean, and even over German East Africa.

After the war against the Central Powers had ended they flew against the Bolsheviks in North and South Russia.

It was as fighter pilots that Canadian airmen won their greatest fame. Of the 27 leading "aces" in the R.A.F., ten were Canadians who between them had accounted for 438 enemy aircraft. Heading the list was Major W.A. Bishop, V.C., D.S.O., M.C., D.F.C., whose total of 72 victories was unequalled in the British air service. Second to "Billy" Bishop was a naval pilot, Major Raymond Collishaw, D.S.O.,



Major W.G. Barker, V.C.

D.S.C., D.F.C., with a total of 60 air victories. Another outstanding Canadian ace, and also a holder of the Victoria Cross, was Major W.G. Barker who won his decoration when single-handed he attacked a formation of 60 German aeroplanes. Mention should also be made of Capt. A.R. Brown, D.S.C., who is credited with shooting down the ace of aces, Baron Von Richthofen — the "Red Knight" of Germany.

The third Canadian to win the Victoria Cross in the air was engaged in the unglamorous, but important, work of army co-operation. This was 2nd Lt. A.A. MacLeod who fought on in spite of the fact that his aircraft was on fire and he had been wounded five times. When the heat became

too intense MacLeod climbed out onto the wing and piloted his aircraft from there. After crashing in no-man's-land he carried his observer to safety, receiving another wound while doing so.

RICH HERITAGE

Many of the best flying-boat pilots who flew on coastal operations with the R.N.A.S. came from Canada. They shot down *Zeppe-lins*, fought enemy seaplanes, bombed submarines, and escorted convoys. One of them was Major R. Leckie, D.S.O., D.S.C., D.F.C., who became C.A.S. of the R.C.A.F. in later years. Major Leckie twice participated in the destruction of a *Zeppe-lin* and attacked at least five more. In addition to attacks on U-boats and engagements with enemy seaplanes, he also made the first night crossing of the North Sea by air and the first successful night landing with a flying boat.

In all, about 22,000 men from Canada served in the R.F.C., R.N.A.S. and R.A.F. during the First World War, bringing fame and distinction to themselves and their country. Fifteen hundred and sixty-three airmen lost their lives and over 800 decorations were won by these Canadians, including three Victoria Crosses. Their achievements, part of the rich tradition of the R.A.F., are also the heritage of the R.C.A.F.

2nd Lt. A. MacLeod, V.C.



The Mail Takes Wings

TODAY it is a common occurrence for letters to wing their way across continents or span the seven seas. Each year countless thousands of letters are speedily processed by the Post Office Department and loaded onto airliners as a matter of routine. It is taken for granted that letters mailed anywhere in Canada can be flown to anywhere in the world.

It is, therefore, to commemorate the 50th Anniversary of Powered Flight in Canada and to pay homage to the early pioneers that the Post Office Department has issued the special stamp, pictured on the right.

The history of airmail in Canada is almost as long as the history of flying. The stamp depicts the flight of the first heavier than air machine in Canada on 23 Feb. 1909. The first airmail in Canada was carried on 24 June 1918.

On that day 41 years ago Captain Brian Peck, a Canadian serving in the R.A.F., took off from Bois Franc field in Montreal in a First World War *Jenny*, bound for Toronto with one mailbag containing from 150 to 300 letters. The trip was completed after a six hour flight at an average speed of 60 m.p.h. plus a re-fuelling stop at Kingston and the letters, suitably marked for the historic occasion, were handed to the Toronto Postmaster.

TRANSITION PERIOD

Following this pioneering flight, which was sponsored by the Aerial League of the British Empire in co-operation with the Post Office Department, the Aero Club of Canada organized a series of airmail flights from Toronto to Ottawa. With the permission of the Post Office, special stickers were made to mark the first of these flights; thus, the second airmail flight in Canada was the first to have letters bearing airmail labels.

Although the Post Office approved of airmail, it was decided that the time was not ripe for an organized system. Immediately after the First World War the

feasibility of establishing an airmail service in Canada was studied and the conclusion reached that such a system would entail large capital expenditures and operating charges, without holding out much promise for some years of any adequate returns. Such a service, it was decided, would be a luxury. Nevertheless, the Post Office recognizing the value of airmail, authorized the carriage of mail by commercial carriers. For the next six years this system prevailed, with that hardy breed — the "bush pilots" — carrying the Royal Mail and issuing stickers as they saw fit.

Captain B. Peck.



SCHEDULED SERVICE

In 1924 a milestone in Canadian airmail history was reached when the Laurentide Air Service became the first commercial operator to carry mail regularly for the Post Office. This service was from Haileybury to the gold fields at Rouyn, Quebec, and during that year approximately 1,200 pounds of mail were carried.

In the same year the R.C.A.F. entered the airmail field for a short period when a special service was put in operation for the convenience of the Prince of Wales who was visiting his ranch in Alberta. Arrangements were made with the railway to deliver his mail to the R.C.A.F. station at High River and, during the normal course of a fire patrol flight, mail sacks were dropped each day at the ranch.

For almost a decade following the First World War the commercial operators had demonstrated, most convincingly, that they could carry the mail on schedule in spite of inadequate equipment and limited facilities. So, in 1927, airmail was carried on an official basis when the Post Office awarded four winter contracts. To people in isolated communities this was a blessing. For the residents of Pelee Island, for instance, the days of mail service dependent on ice conditions on Lake Erie were over, and for the people in the MacKenzie basin who previously had relied on dog team delivery of mail, their winter-long isolation was ended. In 1928 the

value of airmail was further recognized, by the issue of the first official airmail stamp.

INTERNATIONAL AIRMAIL

Airmail service was extended internationally in 1929 when several Canadian and American cities were linked and, in 1939, an overnight service was begun between Montreal and Vancouver which became a trans-Canada service two years later when it was extended to the eastern terminus at Halifax.

During the Second World War trans-Atlantic airmail service became a reality and in 1949 trans-Pacific airmail was added to the growing service. In 1948 all first



The first airmail "sticker" in Canada.

class domestic letters weighing an ounce or less and addressed to points along routes where air service would save time, were carried by air. In 1954 this service included all first class mail up to eight ounces.

Today, some 30 airlines in Canada ranging from one aeroplane outfits to multi-aircraft fleets carry the mail more than 50 million miles. On international routes T.C.A. and C.P.A. fly the mail to 26 foreign countries and, typical of the progress that has occurred over the past 41 years, mail carried in larger aircraft weighs considerably more than the overall weight of the first aircraft to carry the mail in Canada.

Trials and Tribulations of the Ground Crew

Reflections on the 1920's and '30's by a "Jack of All Trades"

AFTER serving five years in the R.F.C. and R.A.F. I joined the C.A.F. in Winnipeg in 1923. We were a small unit, our Commanding Officer was Sqn. Ldr. B.D. Hobbs, D.S.O., D.S.C., and our strength was approximately 30. Our M.E. equipment consisted of one Leyland truck, one Model T Ford, which was used as a staff car, and a Model T canvas-covered tender with seats running along each side.

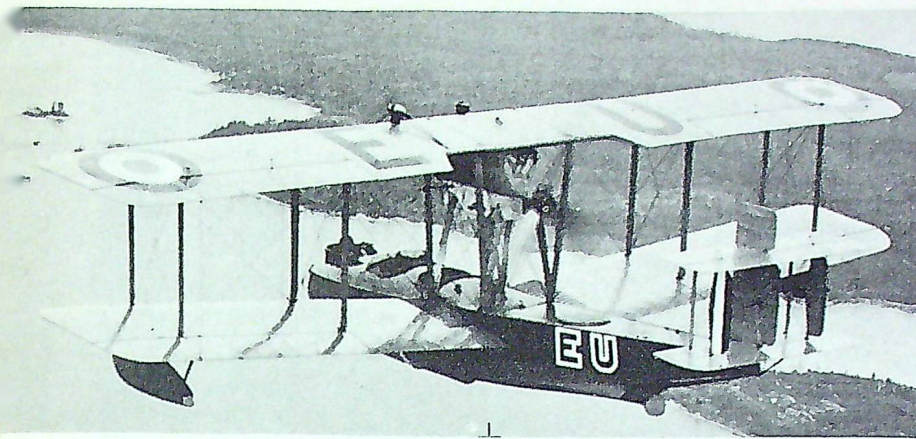
We were a happy gang in those days, despite the fact that we were handicapped by lack of tools and equipment. Our uniforms were of the Norfolk jacket type with a cloth-belted waist; the cap badge and collar badges were silver wings with C.A.F. in the centre and the motto "Sicitur ad Astra" in a scroll beneath the wings. Very often when walking out we were mistaken for fire-fighters and it was dynamite to be near a railway depot as you were always asked the time of departure for trains.

(In today's R.C.A.F. highly complex aircraft are housed in huge hangars and maintained and serviced by a variety of specialists, and that situation is taken for granted. But, from its inception until the approach of the Second World War the R.C.A.F. was a comparatively small organization; aircraft were, by present day standards, few and primitive; and a "mechanic" was a qualified "jack of all trades" — a fitter, rigger, electrician, wood worker, armourer and general handyman. To catch a glimpse of air force life as it was seen by ground crew during those early years we publish this flashback by Wing Cdr. T. F. Cooper, O.B.E. (retired) whose military career included service in four air forces — the R.F.C., R.A.F., C.A.F. and R.C.A.F. — Editor.)



Our sub-base at that time for Winnipeg was located at Victoria Beach which was operated during the summer months only. Although this base had been in use by the Air Board since July 1921, it was still a big chore to re-open in the spring and get things ready for summer operations. Officer commanding the sub-base was Flt. Lt. H. "Gus" Edwards (Air Marshal, dec.).

Despite the smallness of our outfit we boasted a seven-piece orchestra which was not too bad.



A Vickers Viking.

Cpl. Jack Henderson — violin — was the leader, Flt. Lt. G.V. Walsh — piano, Flt. Lt. L.F. Stevenson — saxophone, Sgt. G. Moon — trombone, Cpl. T. Cresy — drums, Cpl. "Lofty" Horton — guitar and Sgt. Tommy Cooper — trumpet. Our social life was certainly not neglected.

Our ground equipment consisted of a Mobile Workshop, R.A.F. type, with an Austin engine for supplying electric power and also a Coventry Standard Power unit as a standby in case of failure, a 40 H.P. Clayton tractor, a Model T Truck for transport and a Cadillac gasoline electric winch for hauling the flying boats out of the water. Our aircraft numbered five H.S. 2L Curtiss flying boats powered with 400 H.P. Liberty engines (pusher type). Incidentally, our base fire fighting equipment was a model T engine hooked to a geared pump and a hose reel cart with about 100 feet of hose.

DO-IT-YOURSELF

Mechanics, as we were called then, had to be versatile. The power plants had to be made serviceable, latrines had to be dug, water systems assembled, aircraft readied to fly as soon as the lakes were reported clear of ice.

Tools were at a premium and unless one had a private kit it was difficult to carry out our daily tasks. For example, the standard kit carried by the crewmen generally consisted of lots of copper wire, blow torch, solder, friction tape, chewing gum, fabric, dope, a piece

of thin plywood, amberoid glue, spark plugs, engine tool kit and in some cases spare magnetoes. Our hours were from dawn to dusk most of the time during the summer but everyone pitched in and made things hum. Crewmen on photo flights had to be able to service and operate aerial cameras as well as maintain their aircraft.

During the summer of 1923 we received additional aircraft in the form of one F3 flying boat, powered with two Eagle 8 liquid cooled Rolls Royce engines and two Vickers Viking amphibians powered with Eagle 8 R.R.'s. The Vikings were the last thing in flying boats, constructed of beautiful mahogany planking with millions of copper rivets. Those air-

craft had to be beached after every flight and polished every day with cedar oil. The engines were First World War vintage and valve springs were always breaking, mags burning out condensers and points and they were a mechanic's headache. It was nothing for a crewman to get out of the seat in mid-air to plug a leak with chewing gum.

IN LIGHTER VEIN

One humorous instance I can recall was the time an H.S. boat had torn the planking during a landing and a working party was sent out to repair the damage. The party left by motor launch, piloted by Cpl. Joe Maskell, for Hecla Island where the flying boat was located. Amongst the repair crew was an Irish carpenter who is well known at the present time and, therefore, should remain anonymous. This gentleman had never seen Canadian wild life before. After the repairs had been completed and the party was heading through the bush to settle down for the night, Pat spotted a white-tailed object just ahead of him. Without more ado he ran ahead exclaiming, "Holy Jiminy! What a pretty little pussy cat", threw his tunic over it and at the same time fell on it. I will leave you to guess the rest of the story. Pat was outlawed for the return journey and was a wiser man from then on.

Returning from a water survey in northern Manitoba, 1924.



There were the inevitable inspection visits from Senior Officers even in those days and it meant best dress and medals. I well remember one occasion. We had been dressed in our number one blues and Sqn. Ldr. G.O. Johnson was taxiing an aircraft away from the dock. To prevent the wing from being damaged I walked to the end of the dock, holding the wing, and as the tailplane was passing I bent forward to make sure everything was clear. "Gus" Edwards could not resist the temptation to put his foot behind me and push me in, thereby demonstrating a sense of humour not fully appreciated by me at the time!

Another parade that I remember was the first time that shorts were worn. The regulation length was two inches above the knee but one airman had shorts on that extended well below his knees and when the O.C. noticed this and lifted the bottom of the shorts he found, to his surprise, that the culprit was still wearing his long underwear.

Inspection of quarters every Saturday morning was described as the 'Great Race'. The O.C. and his retinue would go through all the buildings at a terrific pace and the familiar order would be "Rescrub"! This was a hardship on the boys as all their girl friends visited the nearby summer resort on weekends. On many occasions beds were packed with kit bags while the orderly officer looked the other way.

SALVAGE OPERATION

As our appropriations became larger we began to receive more aircraft. Some of our later acquisitions were single float Avro aircraft with Wolsley Viper engines (Hispano Suiza) which were known to throw connecting rods occasionally with disastrous results. Once when Flying Officer Bill Weaver, flying one of these contraptions, was forced down on tiny Stormy Lake in central Manitoba I was taken in to investigate the damage and found that the engine was a total wreck as two con rods had smashed through the crankcase.

It was a problem to land another aircraft as the lake was only a mile long and a little over 100 yards wide, surrounded by high trees. Flying Officer Frank Wait came in to find out what was required and stalled on take-off; that meant that we had two aircraft in this pot hole and something had to be done about it. Joe Maskell was then flown in to Beresford Lake and hiked through the bush to give us a hand. The crashed aircraft was towed to shore by making a winch between two trees. The engine was removed and the mud and slime was taken out, the serviceable mags and carburettor were removed from the wrecked engine. One engine was made out of two, installed in Flying Officer Weaver's aircraft, tested and flown out by Flying Officer Roy Slemon.

To fly the aircraft out the fuel supply was reduced to a minimum, the tail of the aircraft was tied to a tree and when the engine was at full throttle I cut the rope with a sharp axe and the aircraft just made it over the trees. During this salvaging operation Cpl. Maskell received a badly cut hand. Our first aid kit was used, but the bottle of brandy contained therein was taken back unopened to civilization. Can you imagine an old seaman seeing anything like that happen? (Joe was an ex-British Navy Quarter Master). Speaking of brandy, during the chilly weather at Victoria Beach it was not an unusual thing for an airman to go into the water fully clothed to save an aircraft from being damaged during high winds. The reward was an issue of brandy, but too frequent immersions led to cancellation of this amenity.

MEMORIES OF THE '30'S

In the '30's our strength had grown considerably. I remember that at one time we had 37 aircraft all told and a strength of 127, including office staff, and we had to have the aircraft completed and ready to go at the break-up. Fitters did riggers' work, fabric work, doping and electrical — every one dug in to help each other.

Getting lost was a very rare occasion and considering that there

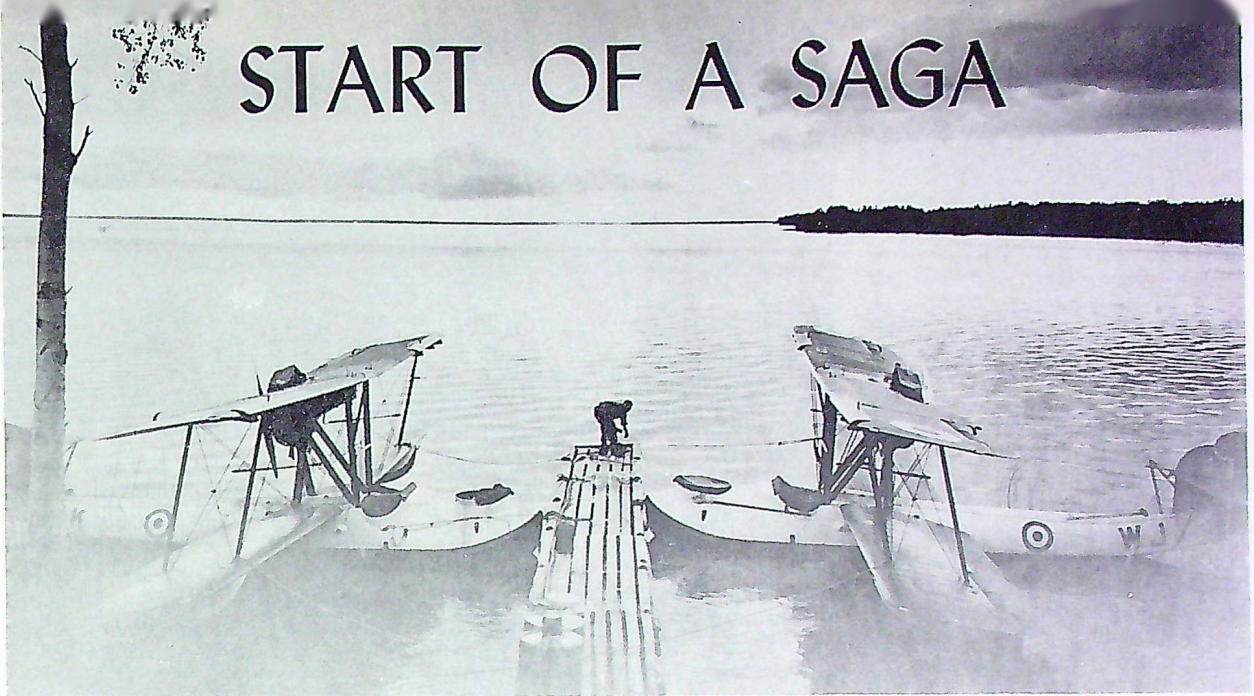
were no radio communications between aircraft and base it is astonishing that so few went missing. The general rule was if you did not turn up in four or five days they would come and look for you. I remember once when I was down on Molsen Lake with Flight Sgt. Bob Marshall in a *Viking*. We had had a rough time with very few rations and on the seventh day a *Moth* flew right over us and failed to see us. I kept saying all the time that we would be found, and we were, on the eighth day, a little worse for wear but still in good spirits.

In 1934, when the Auxiliary Air Force was being formed, the mechanics again stepped in to lend a hand to the new venture. At that time there were very few qualified drill instructors so if you had stripes on your arms, regardless of trade, you volunteered to help with technical matters of drill instructions. In 1935 Camp Borden was reorganized as a training group and many boys (for several years "boy" was a rank in the R.C.A.F.) learned Air Force trades there. T.T.S. later moved to Trenton and I had the pleasure of helping quite a number of boys through school.

At the outbreak of war direct entries swelled the ranks of the R.C.A.F. across the country. It was not very easy for them to understand why the discipline was necessary or why we had fire pickets, duty watches, etc. "Let us get on with the job and get back to civvy life" was a common comment! But after adjusting to service life they did a good job and the majority made excellent airmen and N.C.O.'s.

The Air Force has changed with the times. Aircraft have become unbelievably complicated and with this complication has come the need for specialization in the ground crew trades. These changes which have taken place over the years emphasize the contribution made by R.C.A.F. ground personnel, today equally as important as in "the good old days" which I have recalled.

START OF A SAGA



Vedettes in a northern setting.

Between the wars, Canadian Aviation came of age and helped build the nation

WHEN the First World War ended thousands of military aircraft were thrown onto the commercial market, many Canadians who had flown with the R.F.C. and the R.N.A.S. were keen on continuing their flying careers, and the public's interest in aviation had been aroused. With these favourable circumstances existing, numerous small companies were hurriedly formed to exploit the novelty of flying, as "barnstorming" in Canada seemed to offer a bright future. After a few years, however, the first wave of enthusiasm and curiosity was satisfied and this type of flying practically came to an end. The only aviation companies which remained in business were those which were doing work of permanent value to the country.

The Canadian government, quick to recognize the value of civil aviation and wishing to encourage its orderly growth, formed an Air Board in 1919. In the following year the Canadian Air Force, a non-permanent, non-professional force, was formed as the military branch of the Air Board.

For the next several decades of development, the die had been cast. Military fliers joined forces with "bush pilots" in the common cause of pushing back Canada's frontier and helping to develop the country's vast potential and na-

tural resources. The bush pilots and airline operators were the military fliers' friends and collaborators and many of the R.C.A.F.'s best known northern pioneers either began or terminated their flying careers as civilian pilots.

OPENING THE ARCTIC

In 1922 a Canadian Air Force officer, Sqdn. Ldr. R. A. Logan, was sent on an assignment to the Arctic archipelago to report on the possibility of aviation in Canada's far northern areas. His detailed report contained many suggestions

*Air Commodore A.K. Tylee, O.B.E.,
first Air Officer Commanding the
Canadian Air Force.*



and recommendations as valid today as they were when he wrote them 37 years ago. While on this expedition Logan raised the C.A.F. ensign in the "Land of the Midnight Sun" at a spot only 828 miles from the north pole. It was the furthest point north yet reached by an air force representative and the last time an air force officer would be that far north for many years. Five years later, another contribution to far-northern knowledge was made when the Hudson Bay Expedition was sent into the sub-arctic. The personnel of this expedition spent the winter of 1927-28 gathering information on the meteorological and navigational conditions prevailing in those perilous waters between the prairie provinces and Europe. By their efforts they did much to remove the veil of secrecy surrounding our treasure-laden north-land.

THE C.A.F. BECOMES THE R.C.A.F.

The experience of 19 months, from September 1920 to March 1922 during which time the C.A.F. was a non-permanent, non-professional organization, had exposed many defects and disadvantages. An air force where the vast majority of personnel on the nominal roll were only on reserve strength, meant that Canada had an air force in name, but not in fact. Radical changes were necessary and it was decided to make a beginning with the establishment of a permanent nucleus for the C.A.F. Symbolic of this change of status of the C.A.F. was a change in its title. Approval was received to use the prefix "Royal" and the des-



The midnight sun shines through the C.A.F. ensign, 1922.

ignation Royal Canadian Air Force was first used in correspondence in March 1923. On 1 April 1924 the new regulations reorganizing the service on a permanent basis as a component of Canada's defence force became effective and that date is regarded as the birthday of the R.C.A.F.

THE TASK

The R.C.A.F. inherited the role and responsibilities of its predecessor, the Canadian Air Force and the parent body, the Air Board. The role, however, was not primarily to carry out military requirements but rather to devote its time and efforts towards civil government air operations. Indeed, prior to 1932, the R.C.A.F. was unique among the air forces of the world in that the greatest part of its work was essentially non-military in character.

In its capacity as the government's civil air company the R.C.A.F. performed many valuable services. Air Force aircraft contributed to the efficiency of all

government departments by transporting officials into locations which had been inaccessible except by canoe and dog team. Air force aeroplanes winged their way over tens of thousands of square miles of forests and, in forest fire patrol alone, the air force in one year more than repaid what it would cost in ten years by the preservation of valuable timber lands. Air force personnel also rendered yeoman's service to the forces of law and order by being employed on preventive patrols. So proficient did they become at this task that the price of smuggled drugs on the Vancouver market rose in proportion to the dwindling supply. Possibly the greatest contribution of all, however, was in the field of aerial photography when, in 1921, air force photographic aircraft began the momentous task of unrolling the map of Canada.

During these colourful and hectic years between world wars there were many opportunities for air force pilots to perform humanitarian acts—especially in places where other means of communication and transportation were almost impossible. In the spring of 1929 Flt. Lt. F.J. Mawdesley (Group Capt. A.F.C., ret.) received several such opportunities. During a fire detection patrol in the vicinity of Cormorant Lake, Man., Mawdesley learned that there was considerable sickness and distress at two Indian settlements which, at that time of the year, were linked to the outside world only by dog team. Realizing that this form of

A photographic aircraft on Rabbit River, 1924.



transportation would have meant serious delay, Mawdesley decided to fly medical aid to the stricken communities although weather conditions indicated that the flight had little hope of success. In spite of the hazards of a low ceiling and bad visibility, Mawdesley, apparently guided by some "sixth sense", was successful in bringing help to the two settlements. A short time later Mawdesley, once again overlooking the personal risk involved in order to answer an urgent call for help, made a precarious landing on rough ice to save the life of a northern missionary.

By these and other services typical of those performed at many northern stations Mawdesley and his colleagues proved the exceptional merit and usefulness of the air service to Canada. These exploits also won the gratitude and admiration of the people in outlying districts.

NORTHERN MISADVENTURES

Another of these military bush pilots whose series of exploits and misadventures were typical of those who served in the hinterland, was Flt. Lt. A.D. Ross (Air Cdr., G.C., C.B.E.). Ross, after receiving a seven-week course on sea-planes and flying-boats which, in his opinion, was "of little use to one destined for northern flying operations," was posted to Lac du Bonnet in northern Manitoba. In those days, operating aircraft in Canada's vast uninhabited areas which was largely unmapped, meant that experience was acquired the hard way.

In July 1929 Ross, while flying as a photographic pilot, had his first trip of the season come to a quick and untimely end. During the flight the aircraft engine went unserviceable so Ross decided to make a forced landing on the first available stretch of water which, unfortunately, happened to be a narrow stretch of the Nelson river. With an engine which was rapidly losing power and an aircraft which was being tossed about by turbulent air, he fought a losing battle



Group Capt. F.J. Mawdesley, A.F.C.

for control and crashed into the water. Fortunately he and his crewman were uninjured, but the aircraft and the photo equipment were lost. A party of Indians soon appeared on the scene and offered to take them out to the railway line via canoe. They neglected to mention that there was a 12 mile portage through heavy wet muskeg. Ross subsequently reported that the ferocity of the mosquitos was matched only by the ferocity of his own and his mechanic's language and feelings towards Indians in general.

The following summer Ross was engaged in flying over a maze of waterways, nameless lakes and islands bringing treaty money to the Indians. During that summer he also had another crash when his overworked and overaged *Viking* flying boat gave up the ghost during a landing and sank in 12

Air Commodore A.D. Ross, G.C., C.B.E.



*Old Smiles
that
Ryder
hand*

feet of water. Once again Ross and his hardy crewman Corporal "Plugs" Cooper survived.

FIRST MCKEE TROPHY WINNERS

While the accomplishments of air force officers were made in the line of duty, their only concern being getting the job done efficiently, there were occasions when special recognition was given. Such was the case in 1930 when Sqn. Ldr. J.H. Tudhope, M.C., was awarded the McKee Trans-Canada trophy. This Nobel prize of Canadian aviation dates back to 1927, and is presented each year for meritorious services in advancement of aviation in Canada. Tudhope was the fourth recipient of



this award, and the first R.C.A.F. officer to be so honoured.

He won the trophy for his outstanding service in the development of a Trans-Canada airmail service. Covering the worst flying country in the Dominion in the worst possible weather, he flew day and night to investigate airmail routes from Sydney to Victoria. This included a survey of the Rocky Mountain route in a *Moth* in weather conditions of rain, snow, low clouds and poor visibility. The recommendation for the award to Tudhope asserted that the inauguration of the airmail



Sqdn. Ldr. J.H. Tudhope, M.C.

service throughout Canada was largely due "to the useful and pioneer work done by this officer in the course of duty".

Four years later another air force officer was similarly honoured when Flt. Lt. E.G. Fullerton (Group Capt., A.F.C. ret.) was awarded the McKee trophy for "meritorious service in the advancement of aviation in Canada during 1934, and in recognition of his work as an instructor in instrument flying".

In 1931 Flt. Lt. Fullerton was posted to the U.K. on exchange duty with the R.A.F. He first qualified as a flying instructor at the Central Flying School, then became an instructor at the school. He then proceeded to give "category rides" to R.A.F. instructors in the U.K. and Egypt. On his return to Canada, Fullerton introduced instrument flying and night flying instruction to the R.C.A.F.



Group Captain E.G. Fullerton, A.F.C.

ex CO of 81st - 9 SFTS
Stirling
plilot
 EVE OF WAR

By the late '30's the skies over Europe grew ominously dark and the emphasis in the R.C.A.F. shifted from training and civil work to military operations. All work on behalf of government departments, with the partial exception of survey photography, was discontinued. It was the end of an era.

On the eve of war the R.C.A.F. had a total strength of 4,061 officers and airmen. There were eight regular squadrons and 12 auxiliary squadrons. Of the 270 aircraft in the air force (of 23 different types) the only first-line service types were 19 *Hurricanes* and 10 *Fairey Battles*. As the situation in Europe became more critical the regular squadrons began moving to their "war stations" and Canada placed her armed forces on active service.

ON ACTIVE SERVICE

During the Second World War the small R.C.A.F. of 1939 expanded into the fourth largest air power among the United Nations. Its obsolescent aircraft were replaced by thousands of the latest training and operational types. Its personnel increased more than fifty-fold to a peak of over 206,000 (including 17,000 airwomen). At home it built up a vast training organization, the British Commonwealth Air Training Plan, and put over 40 operational squadrons in the field on coastal defence, shipping protection and other duties. Overseas there were, at the end of the war, 47 R.C.A.F. squadrons and R.C.A.F. personnel served in the air and on the ground with R.A.F. formations in every corner of the globe.

In the unspectacular role of Maritime operations several thousand Canadian airmen played their part. Seven R.C.A.F. squadrons, attached to Coastal Command of the R.A.F., contributed to the cause of keeping Britain's life-lines open and strangling the enemy's commerce. For the most part this work was monotonous, with long hours spent cruising over the sea lanes on routine patrols without even a glimpse of the enemy. Achievements were measured not by the numbers of submarines destroyed but by the number of convoys safely shepherdded into port. Occasionally, however, the peaceful seas erupted into action as an enemy submarine or surface vessel would be sighted and an uneventful patrol suddenly became an epic struggle.

THERE SHALL BE WINGS!

A History of the R.C.A.F.

By Leslie Roberts

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POSTHUMOUS V.C.s

It was on such an occasion that Flt. Lt. D.E. Hornell became the first member of the R.C.A.F. to be awarded the Victoria Cross. On 24 June, 1944, while captain of a *Canso* aircraft, he pressed home a skilful and successful attack against an enemy submarine in the north Atlantic. Ignoring the fierce opposition and the fact that his aircraft was on fire, Hornell sank the submarine with depth charges—then landed his burning aircraft on the water so his crew could escape. Hornell died shortly after being rescued. The citation accompanying the posthumous award of the V.C. stated "this officer displayed valour and devotion to duty of the highest order".

There were many acts of gallantry which were recognized by the awarding of crosses and medals.* Many more deeds of heroism were unknown because no one returned to tell the story, and other acts of bravery were revealed only after the liberation of prisoners of war.

In this latter category is the posthumous award of the Victoria Cross to Pilot Officer A.C. Mynarski, a mid-upper gunner in No. 419 Squadron. On the night of 12 June 1944 Mynarski's *Lancaster* was attacked over France by an enemy fighter and ultimately shot down in flames. When the captain ordered the crew to abandon the aircraft Mynarski made his way aft through the blazing aircraft and attempted to release the gunner who was trapped in the rear turret. When all his efforts failed, the gunner told him to try to save his own life. Mynarski jumped in a sheath of flame, was met on the ground by the French but soon died from his injuries. Miraculously, the rear gunner survived the crash and came back to tell the story.

*Two other Canadian flyers who won posthumous V.C.s were Sqn. Ldr. I. Bazalgette, serving with the R.A.F. pathfinder force, and Lt. R.H. Gray, D.S.C., of the R.N. Fleet Air Arm.

Whereas Canada's three aerial V.C. winners of the First World War all survived, none of the four Second World War airmen lived to receive their V.C.s personally.

IN ALL THEATRES

In Fighter Command the R.C.A.F. was well represented by 21 squadrons, beginning with No. 1 which received its baptism of fire in the Battle of Britain. In addition to the day-fighter squadrons there were also R.C.A.F. fighter bombers, fighter reconnaissance, night fighter and intruder squadrons. It was a day-fighter pilot, Sqn. Ldr. E.A. McNab (Group Capt., ret.) who, by winning the D.F.C., became the first member of the R.C.A.F. to earn a war decoration. Fighter pilots were also the R.C.A.F.'s first battle casualties.

Initially the Canadian squadrons flew with R.A.F. units, but presently an all-Canadian wing of three squadrons was formed and, by the time D-Day arrived, there were three R.C.A.F. day-fighter wings. R.C.A.F. squadrons played a distinguished part in the long pursuit of the enemy across France and Belgium into the Netherlands and finally across the Rhine into Germany. In addition to the squadrons which served in Western Europe, one R.C.A.F. fighter squadron (417) flew with the famed Desert Air Force from the Nile valley in Egypt to the plains of northern Italy. Many hundreds of Canadians served as fighter pilots in the R.A.F. and it has been said that at least one out of every four

pilots who served in the Battle of Malta came from Canada. This included Canada's leading "ace", Flt. Lt. G.F. Beurling, D.S.O., D.F.C., D.F.M. and Bar, who shot down 31 enemy aircraft.

In addition to its representation in Fighter, Bomber and Coastal Commands the R.C.A.F. also contributed units to Transport Command of the R.A.F. when, in the late summer of 1944, three transport squadrons were formed overseas, two to operate in southeast Asia and one in northwest Europe. The latter unit (437) towed gliders for the airborne landing at Arnhem in September 1944. In the weeks and months that followed its *Dakotas* dropped supplies and ferried troops, equipment, ammunition and gasoline to continental bases and returned with casualties and V.I.P.'s.

In March 1945 the squadron again towed gliders for the Rhine crossing at Wesel and then resumed its routine ferrying work. After the German surrender 437 brought home released prisoners of war and displaced civilians, carried food supplies for the relief of starving peoples, and flew mail from home to Canadians scattered over the continent. In the far eastern theatre of war the *Dakotas* of Nos. 435 and 436 squadrons did similar work in vastly different surroundings. In support of the

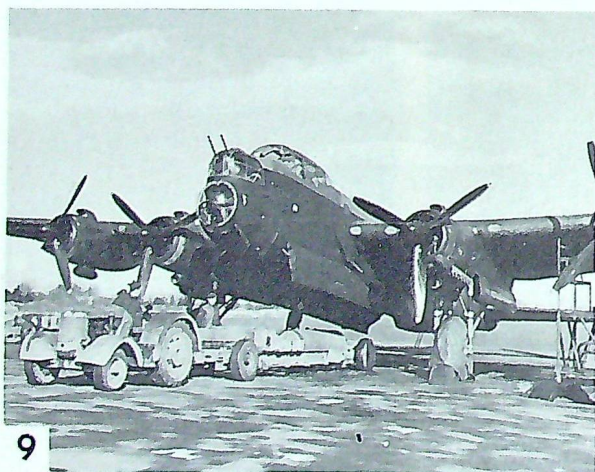
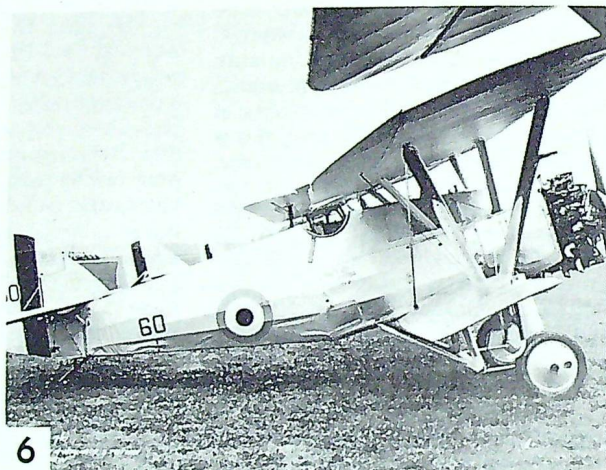
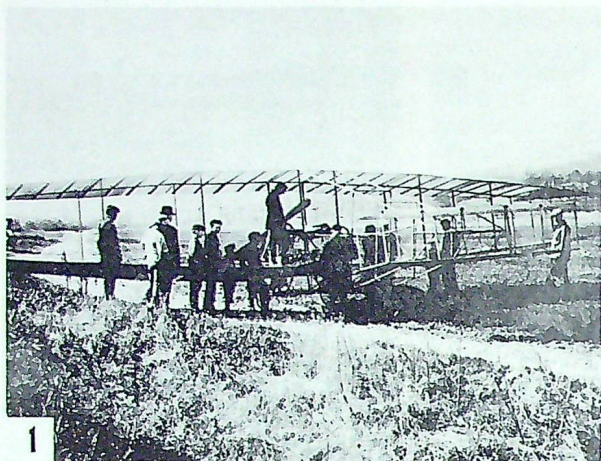
Flt. Lt. D.E. Hornell, V.C.

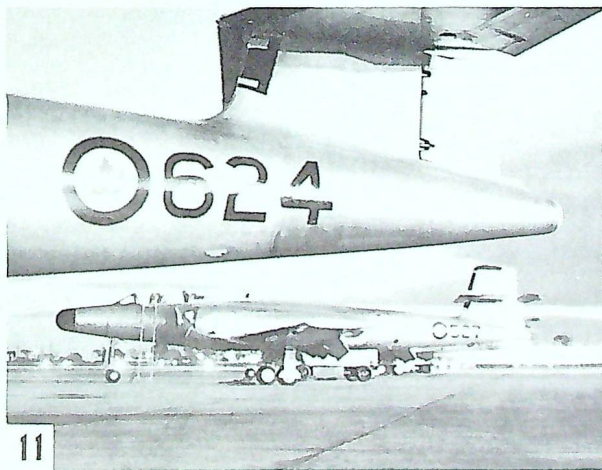
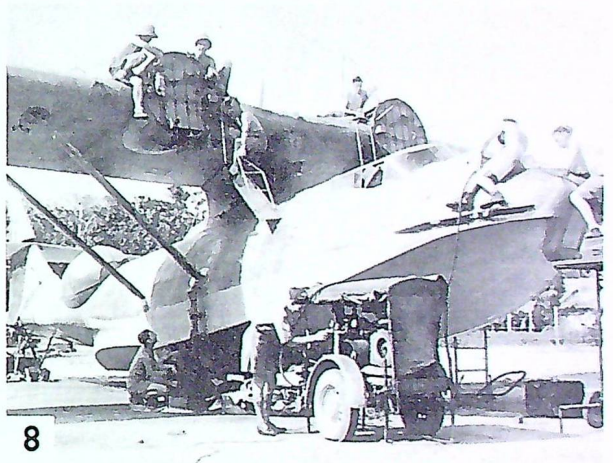
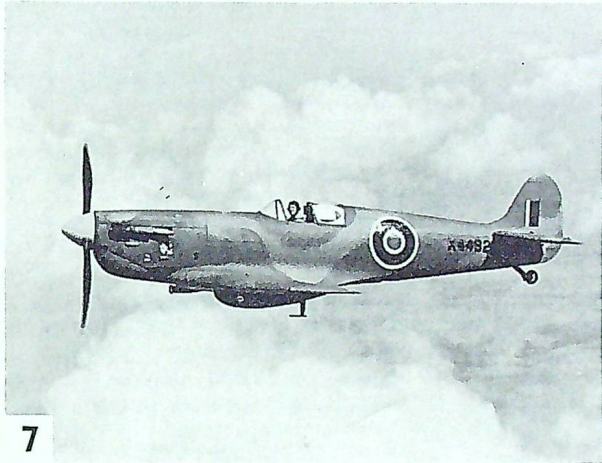
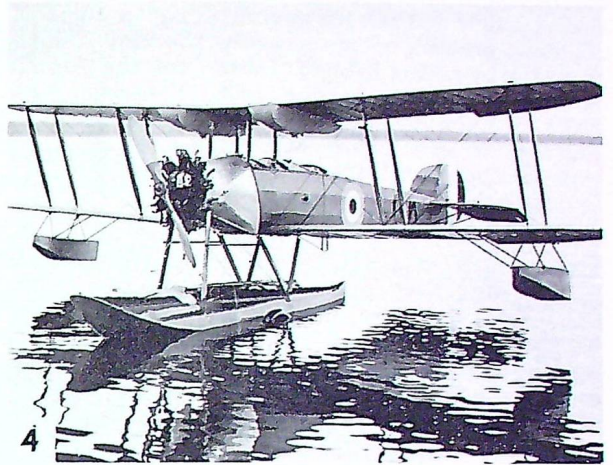
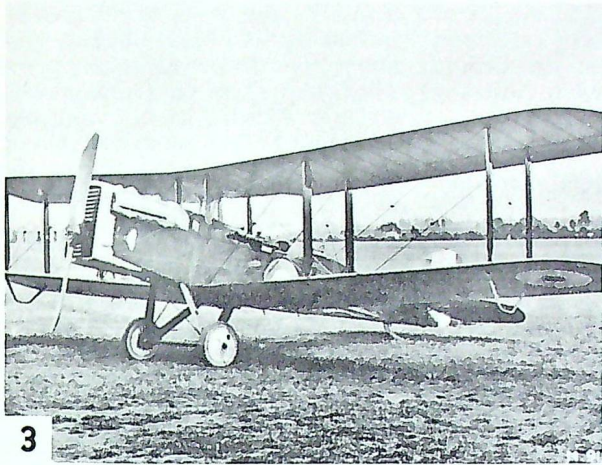


Pilot Officer A.C. Mynarski, V.C.



How Many Can You Name?





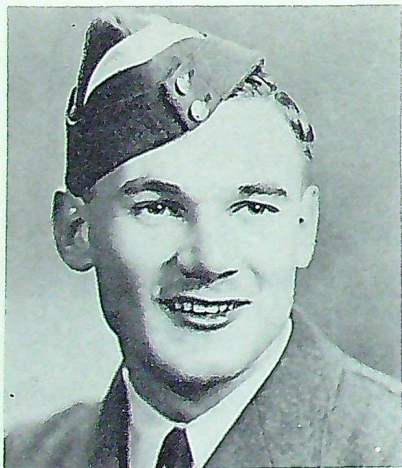
14th Army they dropped supplies by parachute into clearings in the Burma jungle and ran the gauntlet of ground fire and, on one occasion, an attack by enemy fighters. These two squadrons were the last R.C.A.F. units engaged in operations against the enemy as their work continued until the Japanese surrendered.

THE B.C.A.T.P.

From the beginning of hostilities it was recognized that one of Canada's major roles in the war would be as a training ground where instruction could be carried on away from the actual battle area. The British Commonwealth Air Training Plan (B.C.A.T.P.) converted Canada into what President Roosevelt later termed the "aerodrome of Democracy".

The responsibility for establishing, administering and operating this great plan was placed upon the shoulders of the R.C.A.F. and its total complement of scarcely more than 4,000 officers and airmen. In the spring of 1940 the first schools opened and training began. The plan was airborne. At the close of 1943 when the plan reached its maximum expansion there were 97 B.C.A.T.P. schools and 184 ancillary units in operation. Production was averaging over 3,000 graduates per month. At the end of March 1945 the B.C.A.T.P. was officially

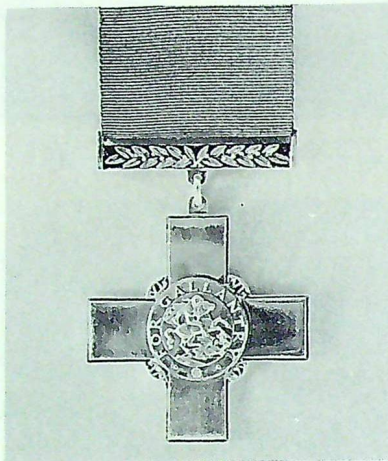
L.A.C. K.G. Spooner, G.C.



terminated. It had done its job beyond expectations, having turned out a total of 131,553 graduates in eight different aircrew categories for the Air Forces of the United Kingdom, New Zealand, Australia and Canada.

GEORGE CROSS WINNERS

It was in the peaceful Canadian countryside far removed from the roar of battle that two George Crosses were won by B.C.A.T.P. trainees.



The George Cross.

On 10 November 1941 L.A.C. K.M. Gravell, who was training as a wireless air gunner, crashed in a *Tiger Moth* near Calgary. In spite of severe injuries including the loss of one eye and severe burns, Gravell managed to extricate himself from the wreckage, but finding that his pilot was still in the aircraft he attempted to pull him clear. The gallant airman later died from his injuries. The official citation accompanying the award stated that "had L.A.C. Gravell not considered his pilot before his own safety and had he immediately proceeded to extinguish the flames on his own clothing, he would probably not have lost his life." A school teacher, Mrs. Walsh, who also assisted in the attempted rescue, was awarded the George Medal.

L.A.C. K.M. Gravell, G.C.

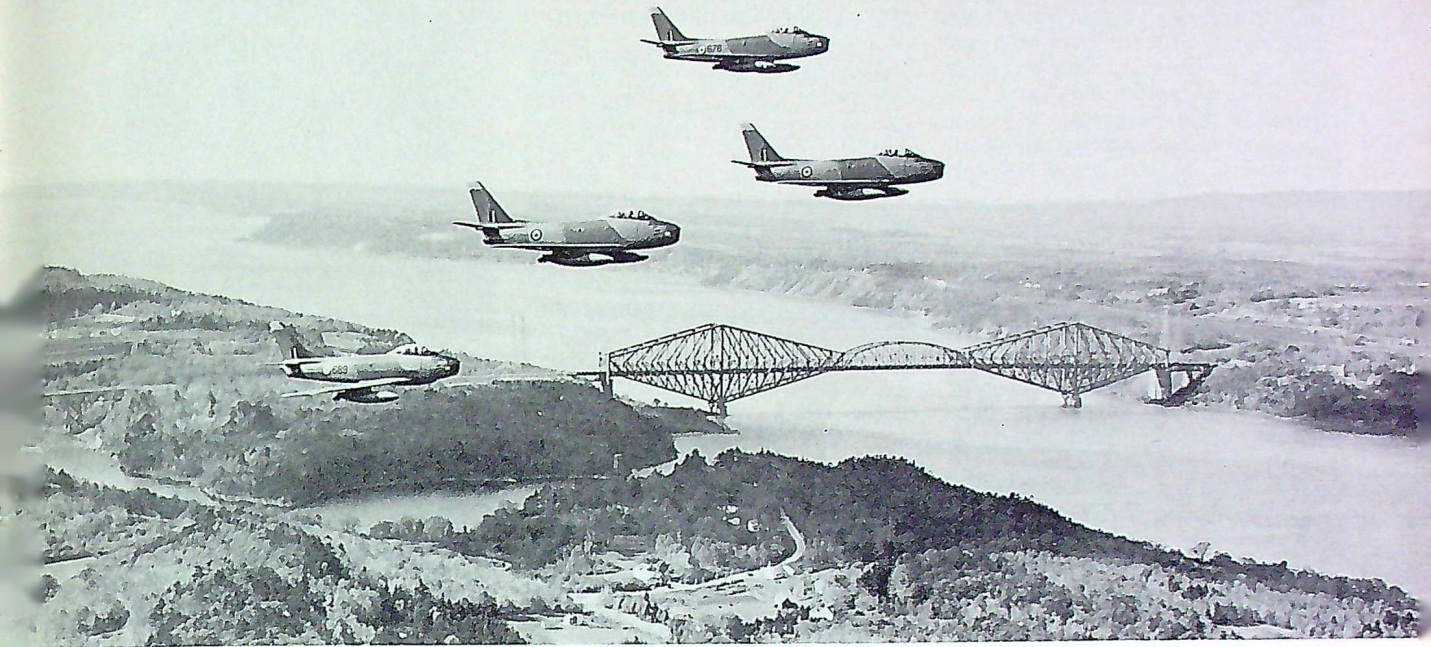
The second George Cross to be awarded to a member of the R.C.A.F. also went to an aircrew trainee. L.A.C. K.G. Spooner was under instruction as a navigator when, on a flight on 13 May 1943, his pilot fainted at the controls. Although he had no pilot training Spooner took charge, ordered the remainder of the crew to bail out and endeavoured to keep the aircraft under control. Shortly after the three crew members bailed out the aircraft crashed, carrying the unconscious pilot and L.A.C. Spooner to their death. The citation read "this airman, with complete disregard for his personal safety and in conformity with the highest tradition of the service, sacrificed his life in order to save the lives of his comrades".

ROLL OF HONOUR

Recognition of the services performed by the R.C.A.F. in the B.C.A.T.P., home defence and operations overseas is to be found in the long list of honours and awards conferred upon its personnel. More than 8,000 officers, airmen and airwomen received decorations, including two Victoria Crosses, four George Crosses, 12 C.G.M.s, 73 D.S.O.s, over 4,000 D.F.C.s, 515 D.F.M.s, 427 A.F.M.s. The Force's Roll of Honour for the Second World War contains the names of 17,000 men and women who gave their lives in the service.



THE POST-WAR YEARS



THE R.C.A.F. emerged from its post-war re-organization as a streamlined service capable of serving Canada in peace and war. In addition to fitting itself as an efficient defence force, the R.C.A.F. has various peacetime tasks which serve the public interest and which at the same time give air force personnel operational training.

A prime example of such a service is the R.C.A.F.'s Search and Rescue organization. The Air Force's S.A.R. activities, which were begun before the Second World War, became international in scope in 1946 when the R.C.A.F. became responsible for Canada's search and rescue commitments under the I.C.A.O. agreement. The Air Force's S.A.R. organization stands ready 24 hours a day to operate anywhere in Canada, or above the oceans bordering her shores, whenever life is in danger.

The job may be to look for a missing airliner down at sea, it may be to put down on a homemade landing strip in the far north to bring out an Eskimo or missionary requiring immediate hospital assistance, or any of a multitude of other tasks. While maintaining primary facilities for this work itself, the R.C.A.F. may and does call upon other government and

private agencies in its assigned role of S.A.R. co-ordinator.

McKEE TROPHY WINNERS

The first post-war service winner of the McKee trophy was Group Capt. Z.L. Leigh, O.B.E., who won it in 1946 in recognition of "continuous outstanding performance in his duties as an officer and pilot of exceptional achievement in both civilian and service aviation".

When the R.C.A.F. was given the commitment of establishing an airmail service for the armed forces overseas Group Capt. Leigh was made responsible for this task. The aircraft available consisted of heavy bombers which required considerable modification to suit them for transport duties. The flying crews were mainly tour expired operational aircrew unaccustomed to the peculiarities of transport operations. Group Capt. Leigh had one month to make the aircraft ready

for their new role, train the aircrew and organize the trans-Atlantic routes. The deadline was met and the first crossing was made in December 1944. In 1945 the route was extended to the continent of Europe, and as far east as Cairo. A year later Group Capt. Leigh gave executive direction to the transformation of the R.C.A.F. air transport service from wartime to a peacetime basis.

In 1948 Flying Officer R.B. West, D.F.C., A.F.C., who had previously won the Air Force Cross for completing successfully several mercy missions under extremely difficult conditions, became the R.C.A.F.'s second postwar McKee Trophy winner. The trophy was awarded to this officer for his meritorious work in the search and rescue field.

Northern flying is not new to air force pilots. Since shortly after the First World War military pilots were flying into the uncharted areas of the north. But, if air force pilots in the '20's and '30's were "bush pilots", many air force pilots of the post Second World War era became

“arctic pilots”. There is a significant difference as arctic pilots have completely different problems and new techniques to master since the lack of radio aids and the effects of the magnetic pole on navigational instruments make air operations in the arctic regions particularly difficult.

It was the work of an R.C.A.F. officer which overcame many of these problems and made possible a more rapid development of military and civil flying in the north. Having won the U.S. Institute of Navigation’s Thurlow award in 1952, for having made the outstanding scientific and practical contribution to navigation during that year, Wing Cdr. K.R. Greenaway was named the winner of the McKee trophy in 1952 for his work in the field of arctic aerial navigation. Recognized as one of the world’s leading authorities in his field, Greenaway is the author of the book “Arctic Air Navigation” which is used by the R.C.A.F. as a text book, and by both the R.A.F. and the U.S.A.F. as a reference manual. His “Twilight Computer” has been adopted by the R.C.A.F.

Group Captain Z.L. Leigh, O.B.E.



and R.A.F. for standard issue to crews engaged in northern flying.

It was another navigation specialist, Wing Cdr. J.G. Wright, D.F.C., who became the sixth serving R.C.A.F. officer to win the coveted McKee trophy. In 1954 Wright was honoured for his invention of the R Theta Computer, considered to be a significant and outstanding contribution to the science of air navigation. The citation to the trophy stated that Wing Cdr. Wright’s invention “will advance the cause of Canadian

Flying Officer R.B. West, D.F.C., A.F.C.



aviation by greatly simplifying and improving the operation of aircraft.”

MID-CANADA LINE

Early in 1954 the governments of Canada and the U.S.A. jointly announced plans for the establishment of a further early warning radar defence system north of the already established warning network. The new line was to be known as the Mid-Canada Line (M.C.L.). Because this early warning system was to be located beyond the



Wing Cdr. K.R. Greenaway.

settled areas of Canada, all construction materials and supplies had to be airlifted, transported by tractor trains or moved by ships into the Hudson Bay region.

In the eastern section of the Mid-Canada Line the rocky and rough nature of the area made the use of helicopters compulsory. Since no civilian operator then in existence possessed the means to supply and support sufficient helicopter strength for the operation, it was decided that the R.C.A.F. would have to fulfil this commitment. The result was the formation of the first unit in the R.C.A.F. to be equipped exclusively with rotary wing aircraft — No. 108 Communications Flight.

Sqn. Ldr. R.T. Heaslip, A.F.C., the most experienced helicopter pilot in the R.C.A.F. at the time, was appointed commanding officer. During the first few months, he was the only pilot attached to the unit while selected air force pilots were in the process of receiving helicopter training at Okanagan



Wing Cdr. J.G. Wright, D.F.C.

Helicopters in Vancouver. In June 1955 No. 108 Flight became operational and in due course the R.C.A.F.'s "hill and gully riders" began to prowl the ridges of Quebec and Labrador, transporting men and materials. In many cases surveyors and their equipment were lowered to the ground from their hovering helicopters where muskeg and/or bog prevented landing of the "chopper". The busiest period was in 1956 when the unit flew 14,000 personnel, lifted 9,000 tons of supplies and put in 10,000 flying hours.

For his contribution to the construction of the Mid-Canada Line Sqn. Ldr. R.T. Heaslip A.F.C. was awarded the McKee trophy for 1956.

PHOTO SURVEY

Another field in which the air force as a whole, and certain air force officers individually, have contributed to Canada's development is in the field of photo survey. Although aerial photographic coverage by air force planes predates the R.C.A.F. itself, this work really came into its own after the

Second World War. In the post-war era aircraft with greater range and better all-round performance were used. In addition, improved navigational aids and new techniques were used. The difference is shown in the results. In 1921 when photographic aircraft began winging their way across the country 280 square miles were put on film. In 1948 more than 900,000 square miles were photographed.

These photos taken by R.C.A.F. crews are used by experts in many fields to obtain information which

Sqn. Ldr. R.T. Heaslip, A.F.C.



will lead to further development of the country. Water power development, soil reclamation, irrigation projects, mineral and oil exploration, forestry surveys, flood control and town planning are but a few of the ways in which the aerial pictures are used.

This aerial photography is constantly revealing the limited extent to which our northland is known. Photos taken in 1934, for instance, showed that Akimiski Island in James Bay was practically upside

down on the maps which did exist. Crews of the air force planes operating over the Arctic archipelago have reported numerous cases where actual topographic features differed considerably from those shown on maps. In 1948, through the courtesy of No. 413 Squadron, Canada acquired more than 5,000 square miles that no one had known about. A photo *Lancaster* discovered two unmapped islands in Foxe Basin, the larger of the two measuring from two to three times the size of Prince Edward Island.

For participation in this essential work, another air force officer earned the highest aviation award in Canada when, in 1957, Wing Cdr. J.G. Showler, A.F.C., was awarded the McKee trophy for "his general contribution to the successful and accurate mapping of the arctic while commanding No. 408 Squadron." Wing Cdr. Showler's vast northern experience, personal drive and enthusiasm, along with the ability to assess the capabilities of his men and equipment were largely instrumental in the success of the 1957 Arctic programme.

Wing Cdr. J.G. Showler, A.F.C.



THE R.C.A.F. TODAY

THE R.C.A.F. in 1959 is a modern, well-equipped aerial fighting force, keenly trained and playing a vital part in deterring aggression both at home and abroad. At home an operationally potent air defence force continues to develop, with emphasis being placed on air interceptor, maritime, and transport elements. Overseas, the R.C.A.F.'s 12-squadron Air Division is making its contribution to collective security. The R.C.A.F. now has approximately 51,000 personnel and operates 40 regular force and auxiliary squadrons.

Recruiting of women for the Regular Force began in July 1951. Present strength of women in the R.C.A.F. is over 2,500 and they have shown themselves capable of performing many highly technical trades. The women fit into the general Air Force pattern, drawing the same pay as the men, and commissions are held by many women. There is no separate women's division as existed during the Second World War.

NEW AIRCRAFT

In addition to the *CF-100* all-weather interceptor and the *F-86 Sabre* day fighter, which are in squadron operational service with the R.C.A.F., new types of aircraft

*Air Vice Marshal W.R. MacBrien,
O.B.E.,
A.O.C., Air Defence Command*



are constantly being acquired. The latest addition is the *Argus*, the largest aircraft ever built in Canada, now operational in an anti-submarine role with Maritime Air Command. The *CC-106*, a long-range turbo-prop transport, is scheduled for delivery to the R.C.A.F. late in 1959 and will replace the veteran *North Star* aircraft of Air Transport Command. Also in production for transport duty is the *CC-109*, medium-range twin engine turbo-prop.

Many other types of aircraft have been acquired during the last few years. These additions to R.C.A.F. air strength include the *Neptune* for maritime reconnaissance duty; the *C-119 Packet* for airborne operations with the Canadian Army and other general transport operations; the *Otter*, for search and rescue and light transport duties; the *T-33 Silver Star* jet, in service as an advanced jet trainer; the *Chipmunk* single-engine light trainer; *Sikorsky* and *Vertol* helicopters for search and rescue work.

An important aspect of the R.C.A.F.'s build-up has been the ground construction programme. Stretching across Canada and into the northland, the building programme has involved construction or expansion of both operational flying and training stations, supply and repair depots, command and station headquarters, radar stations and many other essential projects.

Among the major construction items have been newly designed hangars. Largest of the three standard hangar types is the cantilever model, built to house the large aircraft of today and tomorrow. Ingeniously devised, these huge hangars result in space and cost savings by providing office and storage space previously requiring separate buildings.

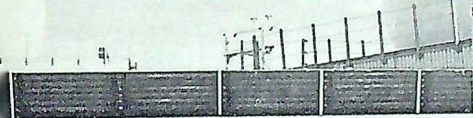
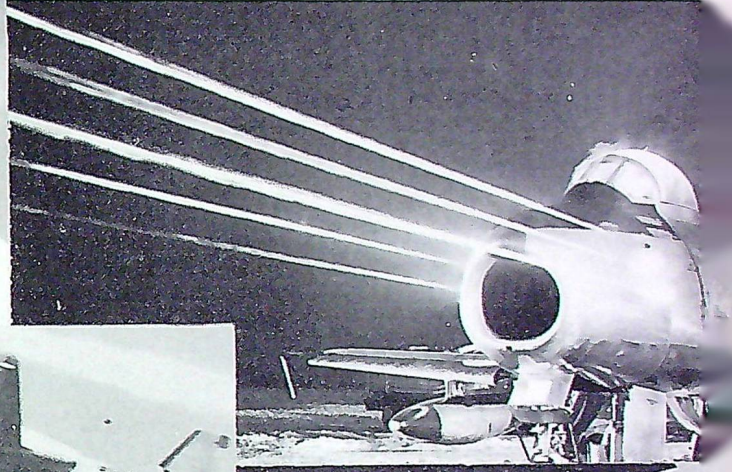
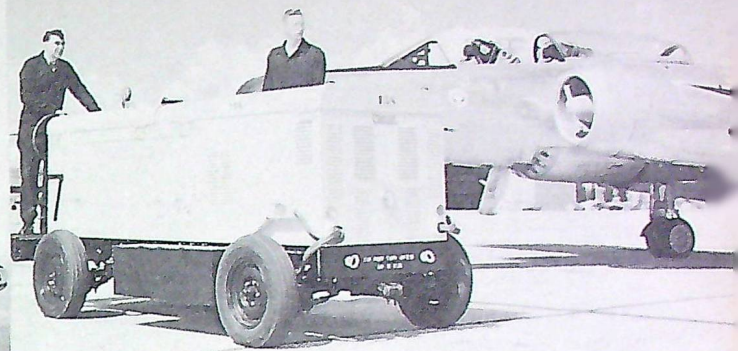
Overall R.C.A.F. policies are directed from Air Force Headquarters in Ottawa, which delegates responsibilities for the various operations and activities to Command and Group headquarters across Canada.

AIR DEFENCE COMMAND

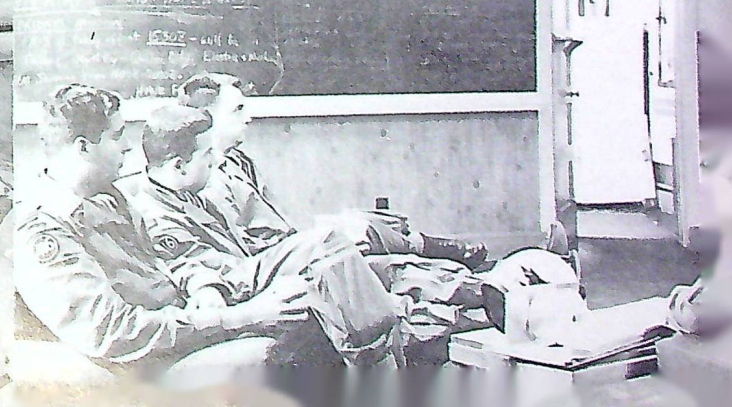
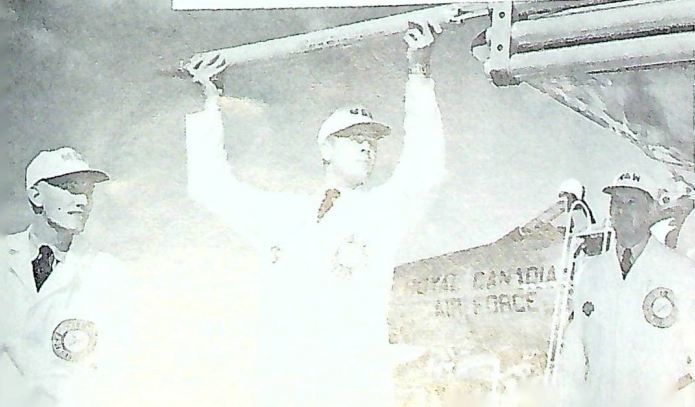
The air defence of Canada is the responsibility of Air Defence Command, whose major nerve centre is at St. Hubert, near Montreal. From here are directed the jet interceptor squadrons forming the striking portion of the Canadian home air defence system. On their

*Air Marshal C.R. Slemon, C.B.,
C.B.E.,
Deputy Commander, NORAD*





AIR DEFENCE COMMAND



own, however, interceptor squadrons would be of limited usefulness in striking at approaching hostile attackers, thus a vital part of the air defence system is the early warning chain and units required to guide fighter aircraft to their targets.

This early warning and ground control system, a highly complex part of any nation's aerial defences, is already in operation along the Pinetree Line, built and operated jointly by Canada and the U.S. and roughly following the international boundary; the Mid-Canada Line, an all-Canadian project reaching westward from the Labrador coast along the 55th parallel; and the Distant Early Warning (D.E.W.) Line, following the very northern-most rim of the continent, which was built and is operated by the United States.

Another important part of the aerial defence system is the Ground Observer Corps, directed by Air Defence Command with regular force personnel at key points, and depending largely upon civilian volunteer spotters or observers.

*Air Vice Marshal L.E. Wray,
O.B.E., A.F.C.,
A.O.C., No. 1 Air Division*



NORAD

Air Defence officials in both Canada and the U.S. speak of "the aerial defence of North America" rather than the defence of Canada or of the U.S., for it is unlikely that any aggressor would observe the 49th parallel boundary line.

Accordingly, the aerial defence forces of Canada and the U.S. have been placed under a unified command, known as North American Air Defence Command (NORAD) with headquarters at Colorado Springs, Colo. It has been set up to provide co-ordinated planning for and wartime operational control of all the air defence forces made available to it by both countries for the air defence of North America.

Under NORAD, the forces of the U.S. and Canada will operate as one to protect North American airspace, while retaining their individual identities. NORAD's commander-in-chief, General E.E. Partridge of the U.S.A.F., and his deputy, Air Marshal C.R. Slemon, former Chief of the Air Staff of the R.C.A.F., are responsible to the Joint Chiefs of Staff of both nations.

No 1 AIR DIVISION

Another major operational element of the R.C.A.F. is its European-based Air Division, a force of 12 fighter squadrons plus air materiel base, and 6,000 personnel.

Coming under N.A.T.O. operational control, the Air Division has its headquarters at Metz, in north-eastern France. Under it come the four R.C.A.F. fighter wings located at Zweibrucken and Baden-Soellingen in West Germany, and Marville and Grostenquin in France. Logistic support for the four wings and their 12 squadrons is provided by an air materiel base at Langar in the U.K.

The Air Division forms an important part of the overall N.A.T.O. air defence forces in Europe. With similar U.S. and French formations it forms the 4th Allied Tactical Air Force, which in turn comes under the Allied Air Forces, Central Europe.

R.C.A.F. personnel form part of the staffs of both these NATO command headquarters, as well as at Supreme Headquarters, Allied Powers Europe.

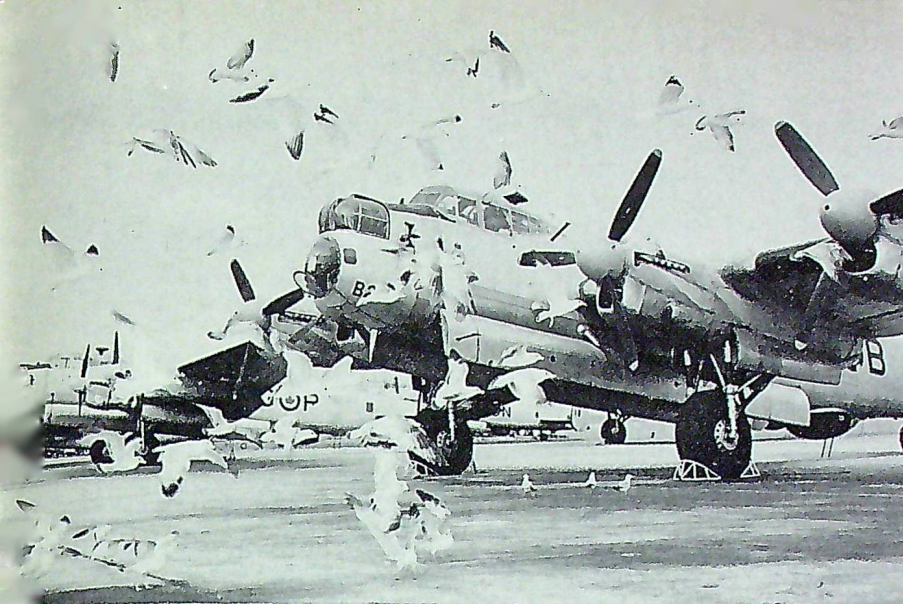
MARITIME AIR COMMAND

Carrying out another high priority operational role is the R.C.A.F.'s Maritime Air Command. With headquarters at Halifax, M.A.C. is responsible for anti-submarine warfare, reconnaissance, and convoy patrols and naval co-operation duties. Squadrons under M.A.C. are located on both coasts. Twin-engine *Neptune* and four-engined *Argus* aircraft have replaced the veteran *Lancasters* on the east coast, and recently *Nep-tunes* took over the Pacific patrol task, operating from R.C.A.F. Station Comox, B.C.

The Air Officer Commanding, Maritime Air Command, actually has two jobs. He is responsible to the Chief of the Air Staff for the air forces allotted to his control as A.O.C. Maritime Air Command. He is also presently serving as Deputy Commander of the Joint Maritime Headquarters at Halifax. This Joint Maritime Headquarters provides integrated operational control of forces assigned to the

*Air Cdre. W.I. Clements, O.B.E.,
A.O.C., Maritime Air Command*





MARITIME AIR COMMAND



maritime defence of the Atlantic coast of Canada. Its commander may be either an R.C.N. or an R.C.A.F. officer, and in wartime would be responsible operationally to the Supreme Allied Commander Atlantic (SACLANT) under N.A.T.O. agreements.

AIR TRANSPORT COMMAND

Air Transport Command carries out another important task. With headquarters at Lachine, Que., its aircraft roam the world operating *North Stars*, *Dakotas*, *C-119s*, *Otters*, *Expeditors*, the *C-5*, and *Comets*, A.T.C.'s squadrons carry out many types of transport operations, including scheduled supply flights to Goose Bay, Labrador; Whitehorse, Y.T., and Resolute, on Cornwallis Island, within a few hundred miles of the North Pole. They also maintain scheduled flights across Canada and to Europe, in support of the overseas N.A.T.O. forces.

When the United Nations Emergency Force in the Middle East was created in 1956, A.T.C. was called on to fly Canadian troops across Canada and into the Mediterranean area, and the job was handled by the *North Stars* of No. 426 Squadron. In addition,

Air Cdre. F.S. Carpenter, A.F.C., A.O.C., Air Transport Command



A.T.C. despatched one of its *C-119* transport squadrons to Naples, where it was used to ferry U.N.E.F. personnel and supplies between Naples and Egypt. Evidence of the globe-girdling mobility of A.T.C. was shown by these operations. Number 435 Squadron, based at Namao, near Edmonton, had four of its *C-119* transports airborne out of Toronto and headed for Naples, with supporting groundcrews, spare parts and ground handling equipment, roughly 48 hours after being alerted and told to prepare for the move.

TRAINING COMMAND

General ground and aircrew training is handled by the R.C.A.F.'s Training Command, with headquarters at Trenton, Ont. Following the end of the Second World War aircrew training was centered at Centralia, Ont. (basic pilot training); Clinton, Ont. (radio officer training); and Summerside, P.E.I. (navigation training). The R.C.A.F.'s own expansion, and aircrew training aid offered to other N.A.T.O. nations, resulted in the opening of additional flying schools. These schools, most of them providing basic and advanced pilot instruction, were opened on the prairies at reactivated Second World War training stations.

Today, successful aircrew applicants report to the Personnel Selection Unit at Centralia, Ont., and after undergoing a series of tests and interviews are enrolled as flight cadets and selected as either pilot or observer (a new term embracing the former radio officer and navigation officer trades) trainees. Upon completion of 12 weeks of training at the Pre-Flight School at Centralia, trainees are sent to the appropriate flying unit to work towards their wings.

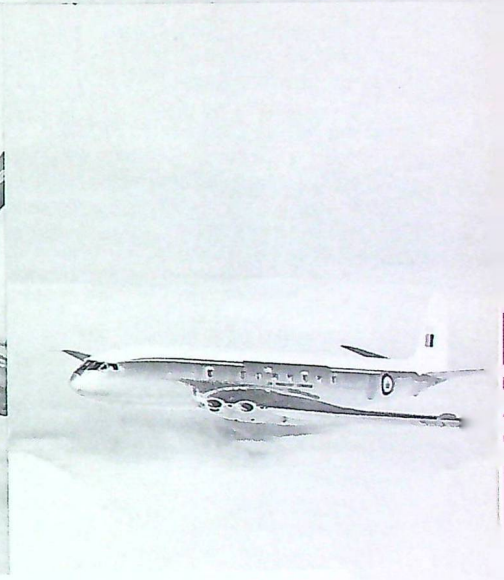
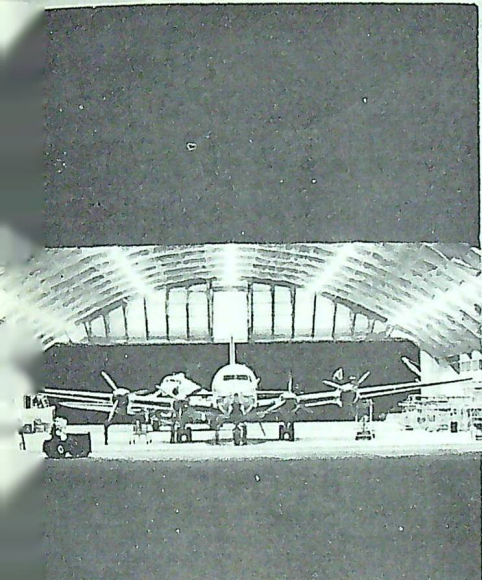
Flight Cadets selected for pilot training go to a Flying Training School for primary training on *Chipmunk*, basic training on *Harvard* aircraft, graduating to Advanced Flying Schools. Flying Training Schools are operated at Penhold, Alta.; Moose Jaw, Sask.; and Centralia. Advanced Schools

are located at Saskatoon, Sask.; and Gimli and Portage La Prairie, Man. There are two types of A.F.S.s, one for fighter pilots, equipped with *T-33 Silver Star* jets, and another for pilots destined for operations on conventional piston-types, which flies twin-engine *Mitchells*. Specialist flying training for pilots is given at the Flying Instructor's School located at Trenton, Ont. and at the Instrument Flying School at Saskatoon.

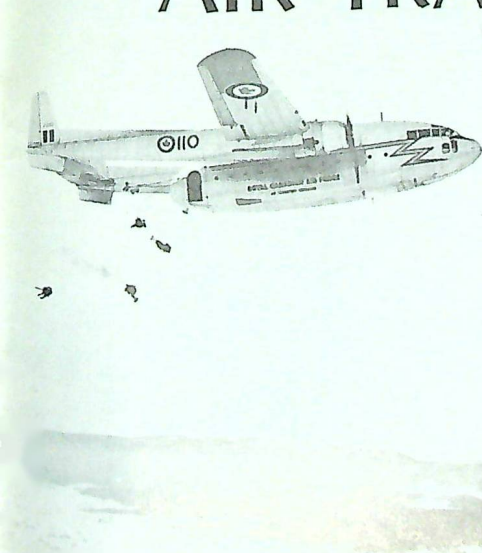
Flight Cadets selected for observer training go to the Air Observer's School at Winnipeg where they take a common 20-week basic course. On completion of this course the trainees are selected for one of the three observer specialties — Observer (Navigator), Observer (Air Interceptor), or Observer (Radio). The Observers (Nav.) and the Observers (Radio) fulfil the functions of the previously-designated navigator and radio officers, while the Observer (A.I.) is a highly-trained radar-operator/navigator for our *CF-100* squadrons. All, however, have a common training background, understand each other's jobs, and may easily be cross-trained to

Air Vice Marshal J.G. Bryans, C.B.E., A.O.C., Training Command





AIR TRANSPORT COMMAND



another observer trade. Today's operational flying requires that observers possess a sound knowledge of basic electronics as well as navigation. The new training programme accomplishes this.

O.T.U.s.

Separate from flying training as handled by Training Command are the Operational Training Units, to which all aircrew proceed on completion of their advanced training. There are four of these, operated by Air Defence Command (at Chatham, N.B. and Cold Lake, Alta.) Maritime Air Command (at Summerside,) and Air Transport Command (at Trenton, Ont.)

Playing an important part in advanced training is the weapons range at Cold Lake, Alta. This big range, measuring some 40 by 150 miles, is necessitated by the increased range of aircraft weapons already in use and expected to come into use, and the high speed of today's fighters. Weapons training and practice for *CF-100* crews is carried out at Cold Lake and there are smaller firing ranges at points across Canada where additional weapons firing takes place. Range practice on a squadron basis is provided for the Air Division squadrons at Sardinia, in the Mediterranean Area.

In addition to its own aircrew training programme, the R.C.A.F. has played a significant part in the expansion of the air forces of other N.A.T.O. nations, by training aircrew for them. In 1950 Canada extended an offer to N.A.T.O. to train aircrew from abroad. The first group of overseas students arrived in Canada in late 1950, and the first wings parade was held in May and June, 1951. Since then more than 5,000 N.A.T.O. aircrew have received training with the R.C.A.F., from the U.K., Norway, Denmark, the Netherlands, Belgium, France, Italy, Portugal, Turkey and Greece. All costs of this N.A.T.O. training plan, which terminated in July 1958, were paid for by Canada as a mutual aid contribution. Under new and sepa-

rate arrangements, 360 West German pilots are being trained by the R.C.A.F., and limited aircrew training is being carried on for aircrew from Norway, Denmark and the Netherlands.

GROUND TRADES

Groundcrew training in the R.C.A.F. is more diversified. Recruits report first to the Manning Depot at St. Johns, Que. and are sent from there to the various training centres according to their trade. Technical trades, such as those of the aero-engine technician and the air-frame technician, are taught by Technical Training Schools at Camp Borden and Aylmer, Ont. and clerical trades are taught at Aylmer. Armament instruction is given at Camp Borden, Ont.

Staff training for officers is provided at two levels; junior officers receive the Junior Officer Administration Course at R.C.A.F. Station Centralia; senior officers may attend the R.C.A.F. Staff College in Toronto. Further advanced training is given to senior officers at the National Defence College, Kingston, which is attended by personnel of all three

Air Vice Marshal C.L. Annis, O.B.E., A.O.C., Air Materiel Command



Services and by selected senior civil servants and representatives from Canadian industry.

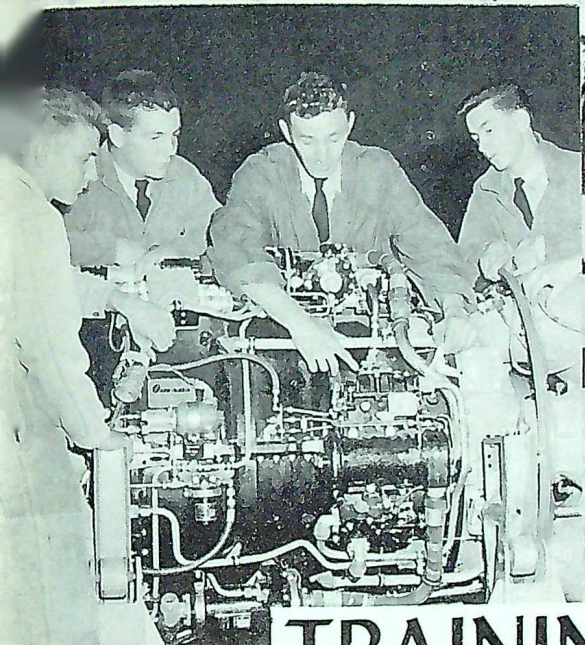
Unique in the R.C.A.F. training programme is the Survival Training School which operates in northern Alberta and at Cambridge Bay, N.W.T., within the arctic circle. Service aircrew are instructed in methods of bush and arctic survival, training being given by experienced R.C.A.F. men with Eskimos and Indians assisting. Ultimate aim of the school is to train all aircrew actively engaged in northern flying in survival techniques.

AIR MATERIEL COMMAND

Possibly the least glamorous but certainly one of the most important of R.C.A.F. commands is Air Materiel Command, with headquarters at Rockcliffe near Ottawa. This command looks after logistic support of the Air Force.

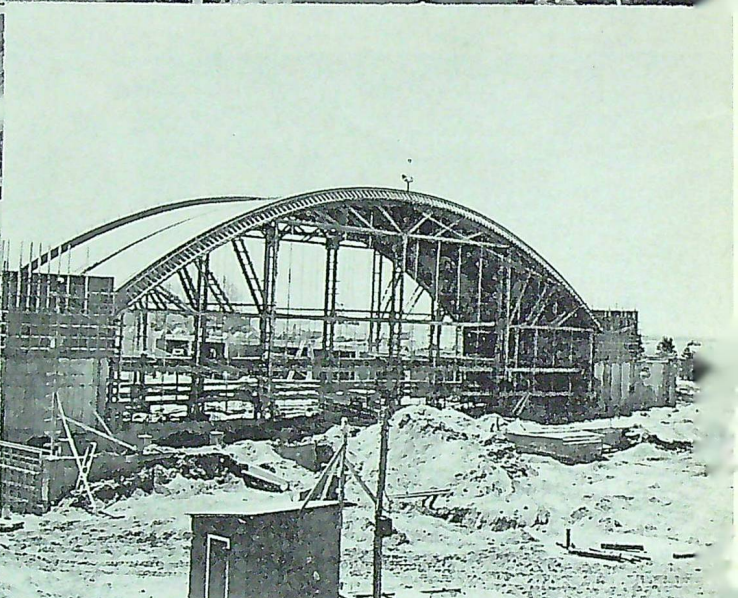
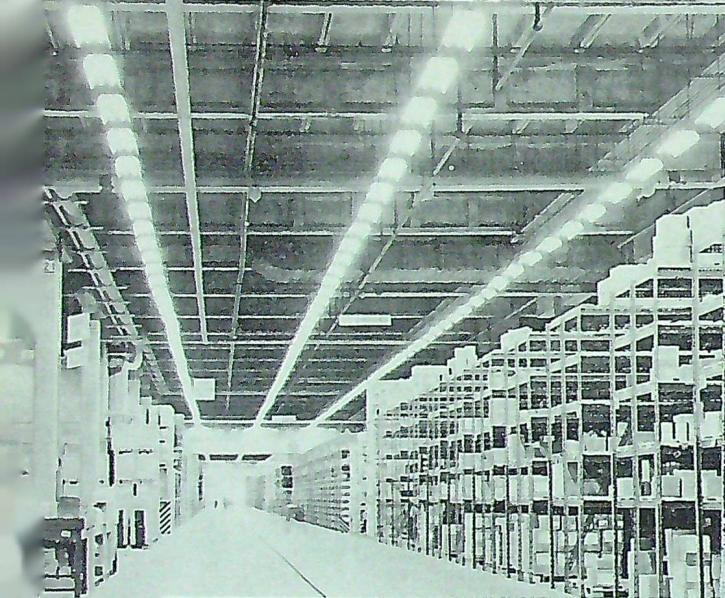
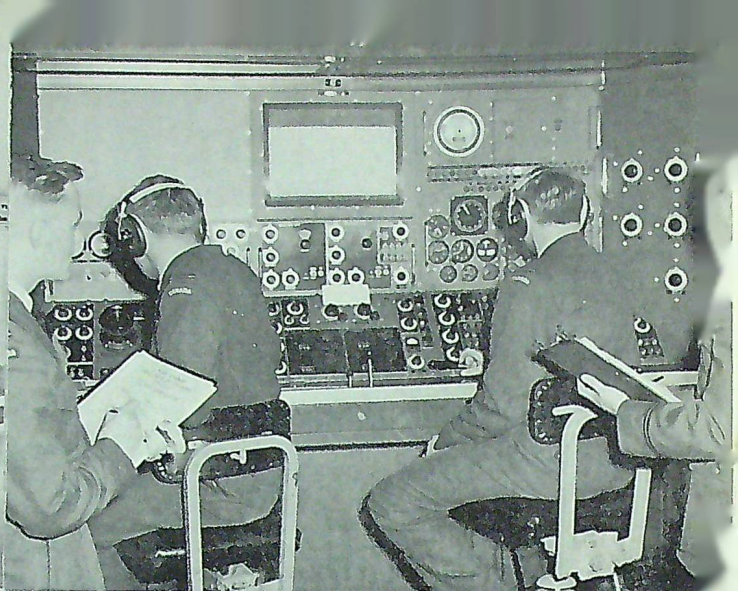
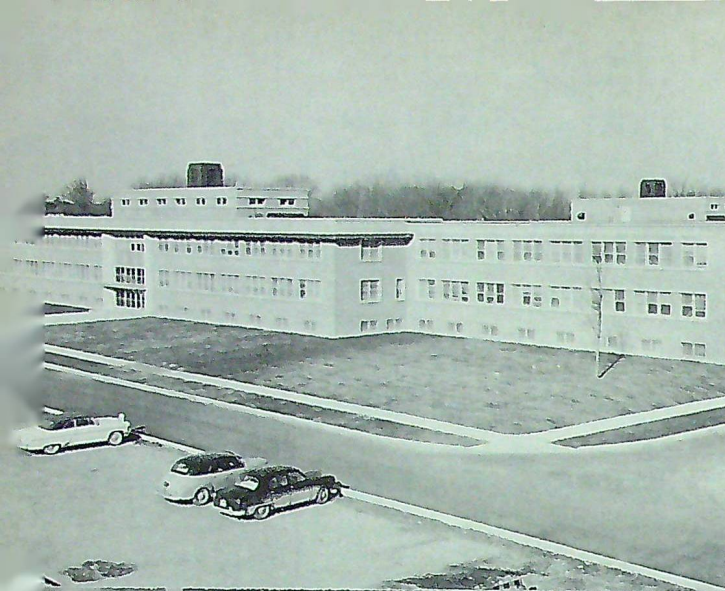
Its headquarters staff is responsible for calculating overall R.C.A.F. requirements, based on decisions passed down from Air Force Headquarters. In addition to calculating detailed requirements, A.M.C. is involved heavily in the mechanics of actual procurement. It also controls supply, maintenance and technical services depots and units across Canada. These units in turn provide a flow of material, as required, to the different stations, look after repair and overhaul of R.C.A.F. aircraft and many other types of equipment, and serve as direct liaison and inspection units with commercial firms producing or repairing equipment for the Service. Air Materiel Command handles the ferrying of aircraft from the manufacturer to the squadron, and also controls the Central Experimental and Proving Establishment at Uplands, the R.C.A.F.'s main testing and development centre.

Today's R.C.A.F., larger than ever before in peacetime, is a proud service with proud traditions. The R.C.A.F. did not exist in the First World War, although 22,000 Canadians flew against the enemy while



TRAINING COMMAND





AIR MATERIAL COMMAND



serving in British flying services. They were the Canadians who formed the traditions of the R.C.A.F. when it came into official being in 1924.

While helping to celebrate the 50th Anniversary of Powered Flight in Canada, the R.C.A.F. joins in

honouring the early pioneer fliers who gave Canada wings. Since 1959 is also the R.C.A.F.'s 35th birthday, the service recalls with pride the part it has played in the evolution of flight in Canada during its three and a half decades of progress, and looks forward to

serving the nation in the years ahead.

Today, as always, the R.C.A.F. stands ready to contribute to national development — or, should the need arise, to play its role in the defence of Canada and the free world.



CANADA NEEDS A NATIONAL AVIATION MUSEUM

BY HAROLD PEARCE, M.B.E., C.D., F.R.P.S., A.F.C.A.I., WING COMMANDER (RET.)
National Co-ordinating Council, Golden Anniversary of Flight in Canada.

CANADA alone, of all the countries having a vital interest in aviation, has no museum where our history in the air can be preserved for the education of young Canadians — and future generations to come. There has been almost a country-wide mania to destroy things which today would be priceless national relics.

Only now, half a century after the first flight took place, does success appear to be attending the efforts of those concerned with rectifying the situation. A sub-committee of the National Research Council, under the chairmanship of eminent soldier-scientist General A.G.L. McNaughton, has been working for some years towards the establishment of a National Aviation Museum. Our National Co-ordinating Council has thrown its wholehearted support behind this endeavour. We have great hopes that during this 50th Anniversary year such a museum will be opened in temporary quarters in the nation's capital.

PUBLIC SUPPORT

If this is so, then public support will be required. Air-minded Cana-

(During recent months THE ROUNDLE has received several letters from readers on the subject of the proposed National Aviation Museum. We would suggest that anyone who can aid in the search for historic aircraft or associated museum pieces should write direct to the National Co-ordinating Council, Room 801, 77 Metcalfe St., Ottawa, Ont.—Editor.)

dians must not leave it all to the government to recover that portion of our history which has, up to now, been almost forgotten. Indeed, it may well be that serious gaps will never be filled because of previous public apathy or neglect.

We have the engine from our first aircraft, the *Silver Dart*, only by good fortune. It served as a motor boat engine for some years and rested at the bottom of Bras d'Or Lake for a long time. The first aircraft engine to be designed and built in Canada was the work of W.W. Gibson of Victoria, B.C. in 1910. This, too, was accidentally discovered just a few years ago. W. Rupert Turnbull, an eminent Canadian aeronautical engineer from Rothesay, N.B., numbered among his many contributions the invention of the controllable pitch propeller—the first successful flight trials of which took place at Camp Borden on 6 June, 1927. This

propellor is now away in storage, pending the day it can be placed on exhibition.

Despite the fact that one third of the Royal Air Force in the First World War were Canadians and that the late Franklin D. Roosevelt referred to the Commonwealth Air Training Plan of the Second World War as the "Aerodrome of Democracy", we as Canadians have been completely indifferent to our historic relics. In fact, you will get more intelligent answers from the average teenager about the accomplishments of imported synthetic comic strip heroes than you will about Canadians who should be justly famous in their own land: Bishop, Barker, Collishaw, MacLaren, MacLeod, May, Berry — and others.

SERIOUS GAPS

Canadian Aeroplanes Ltd., formed during the 1914-18 War, built over 2000 Curtiss JN4 Jen-

NATIONAL MODEL AIRCRAFT CONTEST

Last November the R.C.A.F. announced its sponsorship of the biggest model aircraft building contest ever staged in Canada. This contest, which closes 31 March 1959, is one of many events marking the R.C.A.F. observance of its 35th birthday and the 50th anniversary of powered flight in Canada.

Since the winning models will become the permanent property of the R.C.A.F., the youth of Canada who participate in the contest will be helping to re-create, in miniature, a series of aircraft whose brief but useful flight through time contributed a stirring chapter to Air Force history.

Contest directors have been overwhelmed by the response. Full-time personnel has been employed to send out plans of the eight historic aircraft chosen for the contest and to answer queries. So far, more than 2,000 entries have been received. Prizes include free aeroplane trips to the U.K. and Europe and to the C.N.E. or P.N.E. as guests of the R.C.A.F.

nies as trainers. These aircraft became famous after the war and hundreds of Canadians got their first "dollar a minute" ride from local fields and pastures. Not a *Jenny* remains in Canada.

The same company filled Canada's first export order when they constructed 50 flying boats of British design for the United States Navy. They also built the Curtiss *HS2L*, which played such a prominent part in Canadian aviation in the early '20s. None remain.

The Willys-Overland Company produced the *Sunbeam Arab V-8* liquid-cooled engine for the Royal Air Force in 1917-18. This power plant was installed in the *Bristol Fighter*. None remains, although this was the first production engine in Canada.

In 1927 and 1928 the Hudson Straight Expedition under Sqn. Ldr. T.A. Lawrence (Air Vice Marshal, ret.) carried out one of the most arduous air expeditions of all time. The results of their work showed that shipping from the present site of Churchill to Europe was practical over an economic

period each year. Are any of these aircraft preserved? No! Of six *Fokker Universal* and one *Cirrus Moth*, five *Fokkers* were returned to "civilization". They gradually disappeared; the remains of the last — too badly rotted to recover — lie on the shore of a lake in Western Canada.

And the *Vedette*? Here was the first aircraft to be designed in Canada to a Canadian specification. It was built in Canada by Canadian Vickers starting in 1914 and continued in production for several years. Several were still in service at Trenton in 1939. Would you like to see one? Sorry, not one exists. We were even fortunate to find a few engineering drawings in England.

ALL NOT LOST

This sorry tale is only saved from being one of complete despair by the quiet work of a few persons. To Professor J.H. Parkin of the National Research Council must go great credit for his unremitting search for museum material. N.R.C. has placed in storage, piece by piece, everything which came its

way. The R.C.A.F. model contest (see box) is a sincere effort to produce a few of some 50 models required to replace historic aircraft which no longer exist. The full size replica of the *Silver Dart* — the work of L.A.C. L. McCaffery of Trenton — will be a great asset.

Some valuable aeronautical material is on public display at the Canadian War Museum in Ottawa, but, unfortunately, space limitations prevent the exhibition of other equally interesting relics. Let us hope that before the end of 1959 a proper museum has been established and that it results in a real reawakening of interest in our aviation history.

PLAN TO RESTAGE FIRST FLIGHT

During 1959 many special events will be staged to celebrate the 50th anniversary of flight. These begin on 23 February, the anniversary of J.A.D. McCurdy's famous feat, when the R.C.A.F. is planning to fly a replica of the *Silver Dart* at Baddeck, N.S. A bag of airmail, containing greetings from the Canadian government to other governments, will be on board. This mail will then be taken by helicopter to Sydney Airport and transferred to regular airmail service.

Answers to "How Many Can You Name"

- 1 *Silver Dart*
- 2 *Sopwith Camel*
- 3 *DH 9A*
- 4 *Avro 504*
- 5 *Fairchild FC2W*
- 6 *Siskin III*
- 7 *Spitfire*
- 8 *Catalina*
- 9 *Lancaster*
- 10 *T-33*
- 11 *CF-100*
- 12 *Argus*



The R.C.A.F. Benevolent Fund

The Royal Canadian Air Force Benevolent Fund was established in order to assist serving and former members of the R.C.A.F. and their dependents in time of financial distress.

SERVING PERSONNEL can obtain full information from their units' Orderly Rooms.
FORMER MEMBERS can obtain it from:

- The local Benevolent Fund Committee.*
- Any Wing of the R.C.A.F. Association.
- Any District Office of D.V.A.
- Royal Canadian Air Force Benevolent Fund (Inc.), 424 Metcalfe St., Ottawa, Ont.

*This address is obtainable from any of the other three sources.

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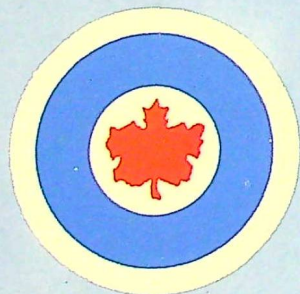
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