

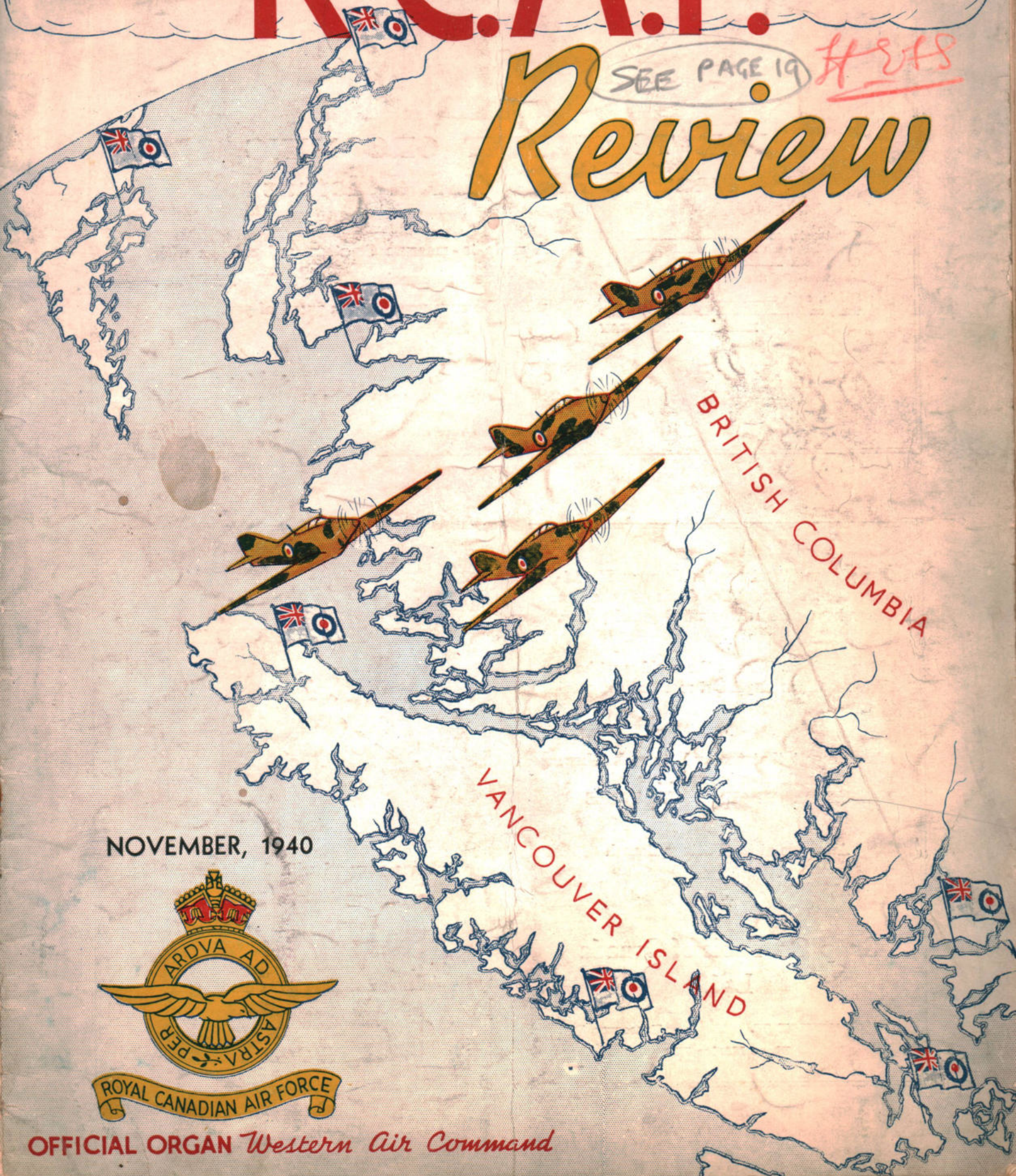
# WESTERN AIR COMMAND

# R.C.A.F.

SEE PAGE 19

H 848

## Review



NOVEMBER, 1940



OFFICIAL ORGAN *Western Air Command*



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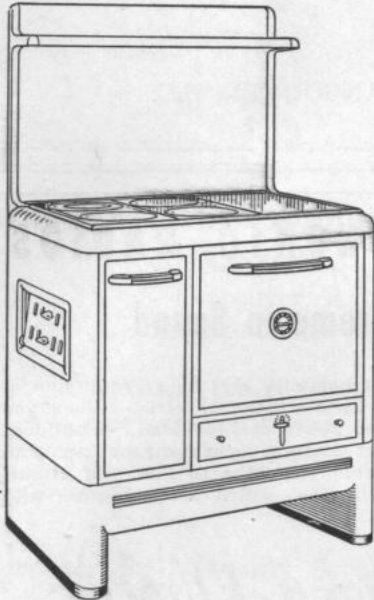
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## The Air Officer Commanding



Air Commodore A. E. Godfrey, M.C., A.F.C., V.D., A.D.C., p.s.a., i.d.c., Air Officer Commanding  
Western Air Command, R.C.A.F.

Story of Air Com. Godfrey's Career on Page 19.

R. C. A. F.  
Western Air Command Review

AN INTRODUCTION

Managing Editor,  
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No. 1, VOL. 1.

NOVEMBER, 1940

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With this issue The Western Air Command Review introduced itself to Officers and airmen of the Command and expresses the hope that it will fill a need for a medium of informal, unofficial communication between the widely-scattered stations.

It may be said here and now that the success of The Review depends primarily upon the use made of it by its readers and upon the degrees of co-operation they yield in its production.

As to the first of these factors, the best service a reader can render a magazine is, obviously, to read it; but there is more than that. The publishers ask that when you have finished reading your copy of The Review you send it home. Your folks there will be glad to learn what you are doing, they will be interested in what interests you.

The other factor depends upon the help you can give to the Associate Editor at your station, a list of whom appears elsewhere on this page.

The Western Air Command Review, it must be remembered is YOUR magazine, produced, largely, by you and for your especial benefit. Its columns are open for you to express yourselves either in the form of articles on any subject in which you may be interested and which, at the same time will be of general interest throughout the Command, or by letters to the editor—letters in which you can “get it off your chest” and relieve your minds.

So far a fine job has been done by contributors in the service and the first issue is one which everyone connected with it can be proud—with the reservation that the next and succeeding issues must be better still.



**R.C.A.F. Western Air Command Review**

470 GRANVILLE STREET

VANCOUVER, B.C.

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## Aero Engine Testing

By Flight Lieutenant W. P. Dunphy

A well-known figure in the British aircraft industry once made the remark that an aero engine goes through half its life before it leaves the factory. At the time he was perturbed over the inability of his staff to cope with a certain re-occurring trouble which was hindering production by the extra time needed to run the engines through their tests.

While the remark is obviously exaggerated—no doubt the speaker would have been the first to admit it—an aero engine does, nevertheless, have a considerable amount of running to do before it can be considered airworthy. It must not only prove its ability to give the performance claimed for it but it must also prove the ability of its components to withstand the loads to which they are subjected. In so doing it is sometimes necessary to make adjustments or to replace certain parts. In either case it usually follows that a retest has to be made and in this way the running time of an engine often amounts to over a dozen hours before it even takes its place in the aircraft.

### TESTING PRINCIPLES

While there are arguments for and against a severe test it is not proposed to discuss them here but rather to describe what has become the usual practice and so the following notes deal only with the principles of aero engine testing as applied to production engines. The testing of experimental and development engines is vastly different and follows no set procedure.

One of the first requirements of a testing plant is its ability to show the variation of the torque developed by the engine at constant revolutions per minute and also the variation of revolutions per minute at full throttle without stopping the engine. There are several types of test plants in use that will meet these requirements but in England where aero engine production has reached an advanced stage the hydraulic brake dynamoter is the type in most common use. In this type the engine propeller shaft is coupled direct to a long torque shaft and the power developed by the engine is absorbed by the resistance of water to the churning action of a specially formed rotor attached to the other end of this shaft. The power developed is calculated from the torque reaction of the casing in which this rotor is inclosed.

The casing is prevented from turning and kept floating in a horizontal position by varying the weights connected to the outer end of an arm to which the casing is coupled. By adjusting the clearance between the rotor and the inner wall of its

casing resistance to turning is varied and this in turn has the effect of varying the torque reaction.

### BRAKE DYNAMOTER

In this type of test stand the power developed by the engine under test is actually converted into heat and it is consequently necessary to keep a constant supply of cold water flowing through the casing. Owing to this total loss of useful power another type of stand, the electric brake dynamoter, is meeting with increased favour. In this type the power is converted into electrical energy which can be absorbed in an outside circuit.

The electric brake dynamoter is in effect a generator, the armature of which is coupled direct to the propeller shaft of the engine under test while the field magnets are allowed limited rotational movement about the axis of the armature. This rotational movement is limited in exactly the same way as the outer casing of the water brake dynamoter is limited, i.e. by a torque arm on the outer end of which is suspended an adjustable weight. The resistance to torque developed by the engine is varied by adjustment of the external electrical circuit and that of the generator.

When using either of the above dynamoters the Brake Horse Power developed by the engine is calculated from the following formula:

$$\text{BHP} = \frac{W \times N \times 2 \times 4.14 \times L}{33000}$$

WHERE W—the weight in lbs. which is placed on the outer end of the torque arm.

N—the number of revolutions per minute of the airscrew shaft.

L—the distance in feet measured horizontally between the centre of the torque shaft and the outer end of the torque arm.

It will be easy to see how this formula is arrived at. Imagine a drum of 5 ft. diameter, rotating at 1000 r.p.m. and suspended over which is a belt brake exerting a pull of 200 lbs. What would be the Horse Power required to rotate the drum?

As the drum is five feet diameter its circumference will be 15.70 ft. and this figure when multiplied by the r.p.m. will give the drum's peripheval speed. This will be found to equal 15700 feet per minute. Through friction on the belt the drum is exerting a pull of 200 lbs. and therefore the amount of power being used up will be 3140000 feet lbs. per minute. (15700 feet per minute multiplied by 200 lbs.) This can be expressed as Horse Power by dividing by 33000, it being estimated that one Horse Power is equal to 33000 feet lbs. per minute

In other words the Horse Power required to rotate the drum is: 3140000 divided by 33000 or 95.15.

As can be noted the above calculation can be expressed as the formula  $BHP = \frac{W \times N \times 2 \times 3.14 \times L}{33000}$  divided by 33000.

WHERE  $L$ —the radius of the drum in feet.

$W$ —pull on brake belt in lbs.

$N$ —number of r.p.m. of the drum.

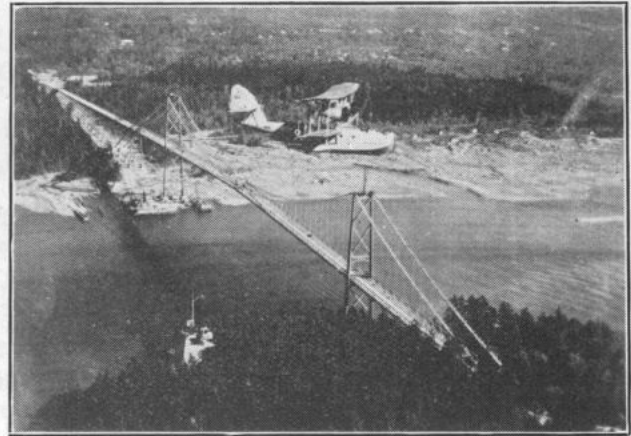
Obviously the amount of heat generated by friction between the belt and the drum would soon cause a mechanical failure and so the water brake or electric brake is used. The formula by which the Horse Power is calculated remains the same however. In practice it will be found that the only varying units in this formula are  $N$  and  $W$ . Consequently it is customary to manufacture the torque arm with a length calculated to result in the remaining portion of the formula being equal to a convenient round figure. If the arm is 5.254 feet long for example this constant portion of the formula will be found to equal: 1 divided by 1000.

The formula necessary to calculate the Horse power developed by any engine tested on such a stand would therefore be  $N \times W$  divided by 1000— which is a very simple slide rule calculation.

There are of course other requirements of a testing plant. Adequate cooling facilities must be provided for the engine and such things as oil temperatures and pressure, fuel consumption and cylinder head temperatures must be indicated. The temperature and barometric pressure of the ingoing air are also important factors governing the completion of a test. The reason for such requirements is obvious however and it is not proposed to discuss them here.

The power developed by any internal combustion engine depends on the weight of oxygen available in the cylinder for combustion and this is of course governed by the quantity of air drawn in on the induction stroke. Obviously if the barometric pressure of the air at the time of test is high and the temperature low there will be a greater weight of air drawn in than there would be under opposite atmospheric conditions. Before the powers of various engines can be compared therefore it is necessary to correct the figures obtained on test to the figures that would have been obtained had the engines been running under identical atmospheric conditions. By international agreement a standard atmosphere has been set for this purpose and for ground level the figures agreed on are 15 deg. C. temperature and 760 m/m pressure. Other figures have been set for different altitudes.

The formula used for making this correction is:  $BHP = \frac{OBHP \times 760}{P \times \sqrt{273 \times T}}$  over 273x15.



### VANCOUVER — FLYING OVER LIONS GATE BRIDGE

After many years of flying in the R.C.A.F. these planes have been retired from active service.

WHERE  $BHP$ —corrected Horse Power.

$OBHP$ —observed Horse Power or the actual power developed by the engine at the time of test.

$P$ —barometric pressure of the air in millimeters at the time of test.

$T$ —temperature of the air in degrees C. near the carburettor air intake.

It will be noticed that the correction for temperature is carried out on the square root of the absolute temperature in degrees Centigrade. Various alternative formulae have been proposed but the above formula has been found to give the greatest average accuracy. The position from which the temperature is measured is important as it is possible to get an incorrect reading due to radiant heat from the engine. It is usual therefore to measure the temperature of the air stream to the carburettor intake from a position about three feet away from the engine but directly in line with the air stream.

#### ENDURANCE TEST—

For the endurance test portion of the acceptance tests of a new engine a specially calibrated airscrew is sometimes used. Such a propellor is usually calibrated to absorb the rated power of the engine under test at its rated r.p.m. Sometimes however it is calibrated to absorb approximately nine-tenths of the rated power. No Horse Power is quoted in the log of such tests but only the r.p.m. of the airscrew; it having been found that the degree of accuracy in estimating the power cannot be consistently guaranteed to within six per cent. This variation is due to the effect of the variations in air density, the prevailing direction of the wind and the environment conditions on the torque of the airscrew. For aircooled engines it is necessary to use an airscrew so designed as to give a slipstream over the cylinders of at least 100 miles per hour for cooling purposes.

CONTINUED ON PAGE 17

## Der Fuehrer's Prayer

Gott, Gott, dear Gott, attention please  
 Your pardner Adolph's here  
 Und has a word or two to say  
 Indo your private ear;  
 So durn away all udders now  
 Und listen vell to me,  
 For vat I say concerns me much,  
 Meinself und Shermany.  
 You know, dear Gott, I vas your friendt,  
 Und from mine hour of birth  
 I quietly let you rule the Heffen  
 Vile I rule o'er der Earth,

—X—X—

Und ven I told mein soldiers  
 Of by-gone battle days,  
 I gladly split der glory  
 Und gave you half der praise.  
 In every way I tried to prove  
 Mein heart to you vas true,  
 Und only claimed mein honest share  
 In great deeds dat ve do.  
 You could not haf a better friendt  
 In Sky or Land or Sea  
 Dan Adolph Hitler number vun  
 Der Lord of Shermany.

—X—X—

So vat I say, dear Gott is dis:  
 Dat you shouldt still be friendts  
 Und you shouldt help to send mine foes  
 To meet deir bitter endts.  
 If you, dear Gott, vill dis me do  
 I'll nothing ask again  
 Und you and I vill pardners be  
 For evermore—Amen.  
 But listen, Gott, it must be quick  
 Your help to me you send,  
 Or else I half to stop attack  
 Und only play defend.  
 To make the allies run  
 So for and twenty hours I gif  
 Und put me safe into mine place  
 Der middle of der Sun.

—X—X—

If you do dis I'll do mine part,  
 I'll tell der vorldt der fact—  
 But if you don't den I must tink  
 It is a hostile act  
 Den var at once I vill declare  
 Und in mein anger rise,  
 Und send mein bomber ships to vage  
 A fight up in der skies.  
 Dis Ultimatum now, dear Gott,  
 Is von of many more,  
 Mein mind is settled up to clean  
 Der whole vorldt off der floor,  
 Because you vas mein pardner, Gott  
 An extra shance is giffen,  
 So help at vonce, or else I'll be  
 Der Emperor of Heffen.

— X —

# Aviation--It's History and Progress

(By The Corporal)

To trace the history of Aviation we must go back through the history of the world. Flying is not a creation of the present generation. Among the first of man's attempts at flight is one told in the Greek legend of Daedalus, a Cretan sculptor, and his son, whose waxen wings melted when he flew too near the sun. Many others are among the exploits of classical mythology, but this, the Greeks believed, was the first step towards man's mastery of the air...

Between the Grecian period and the 16th century there remains a gap. In 1500, Leonardo Da Vinci, scientist, painter and author, approached the subject in a scientific manner for the first time. He planned the vertical lift type of aircraft—the helicopter—but his experiments were mainly with the ornithopter or flapping wing. Da Vinci got as far as the drawings. It was not until 1783 that two Frenchmen, Joseph and Etienne Montgolfier, succeeded in making the first balloon ascent. The test ascent was made by tying a duck and a sheep to the balloon. It landed two miles from the starting point. Because of its success the two brothers were granted an audience with the French King, Louis XVI and his Queen, Marie Antoinette. While preparing for the ascent, a young nobleman Pilatre de Rozier insisted that he make the flight. Against urgent pleas to abandon the idea, he made the ascent and landed successfully.

Little else was accomplished in aeronautics until 1890. Many tackled the problem but few were successful, although in the period 1890 to the Great War, there was a rapid development in the science of flight. In 1891, Otto Lilienthal, a German, built the first glider and did much to advance the cause of aviation. Unfortunately, he was killed in his experiments. Hubert Latham, Octave Chanute, Glenn Curtiss, Professor Langley, the Wright brothers and many others, contributed to the knowledge of aerodynamic principles, some paying for it with their lives. At this time experiments were conducted along two lines: lighter than air and heavier than air.

The first balloon ascent was made in 1783 by the Montgolfier brothers. In 1852 the first power driven airship was navigated by Henri Gifard, a nautical engineer. Next a young Brazilian won 10,000 francs for flying around the Eiffel tower in 1898. His success was paralleled by Count von Zeppelin, a retired German army officer, who, in 1900 made the first Zeppelin flight. Because of its success the German government aided him financially and his later models were improved in structure and

design.

The first successful power-driven heavier-than-air machine was made by the Wright brothers, Wilbur and Orville at Kitty Hawk, North Carolina, in December 17, 1903. The flight lasted 12 seconds and the machine flew 120 feet. The years following saw many improvements, each a greater success than the last. At this time, 1909, Louis Bleriot made the first channel crossing by air from Calais to Dover. Flying, as a mode of transportation, was becoming a sturdy youngster.

In the years 1904-14 the gasoline engine was greatly improved. By the end of the war flying had advanced at an abnormal rate. From the end of the war up to the present time there followed a rush of aeronautical achievements. Among them was the first flight across the Atlantic by Alcock and Brown in 1919 from ~~New York~~ to Ireland. The first round the world flight was carried out by U.S. Army Air Corps in 1924, followed by Lindbergh's solo New York to Paris flight in 1927. These, and many other achievements, have affected our daily lives and added impetus to a new industry.

Lighter-than-air ships have not proved to be commercially profitable, because of their inherent instability and high cost, although they were used with considerable success by the Germans in the last war in their bombing raids on Britain. But disasters like those which destroyed the R-100, the Hindenberg and the Macon destroyed public confidence in this type.

---

## Montreal Flying Club Suspends Operations

---

Suspension of civilian flying activity at the Montreal Light Aeroplane Club was announced by President F. W. Dougherty recently. Most of the instructional and maintenance staff had become engaged in Air Force activity and thus it was found necessary to terminate flying temporarily. The club does not cease to exist and will resume civilian flying activities as soon as this is considered feasible.

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## The P.B.I. And All That

*Being a thoroughly unreliable guide to the infantry  
of today*

The infantry is so called because it is composed of very young soldiers and owes its importance to the fact that it is the only Arm which uses its legs for marching on its stomach.

Infantry are expected to be 100 percent capable of performing the work of other Arms although they are very much younger. They are sometimes called "Babies in Arms" and not admitted.

Infantry are trained in use of the spade, grenade, fusilade, connoneade, first aid, and church parade. They also trifle with the rifle. The programme for training is laid down by the Army Council, an austere body, consisting of the C.I.G.S. and other big W.I.G.S. who issue the necessary orders and unnecessary amendments.

The most expensive infantry soldiers are the Guards, who may be subdivided into Horse Guards, Coarse Guards, Coast Guards, Cold Cream Guards, Foot Guards, and Trigger Guards. Guards are found in all stations, including Waterloo. They train for war on the playing fields of Eton.

Next in importance come the Rifle Fire Brigade and the light infantry, who are all small men and travel very fast between Durham and Cornwall.

Then come the Regiments of the Line. The line being a thin red one which was invented during the Crimean War by a lady butler. It is now found on the Officers' Mess overalls in memory of Badajo's breaches. Amongst these regiments are the Kings, the Queens, the Knaves and the famous Scottish Macaroons. The Scottish Regiments differ from the English ones in that the English recruit is largely from Ireland, whereas, Highlanders are obtained from London.

There are only two ranks of any importance in the infantry. The front rank and the rear rank. These must be kept apart and on no account allowed to become mixed up.

The backbone of the infantry is the private soldier, so called because his life is about as private as that of Henry the Eighth.

A hundred years ago the infantry soldiers wore a head dress called a "shaker" in which a cocktail feather was carried. Nowadays he wears a "Porrage Cap," which must not be confused with the blue bonnet over the border. In the future infantry will wear a "Dear Stalker," or "Square Pusher" as it is familiarly called. In olden days officers wore overalls for riding, now they wear breaches and spurs for walking about barracks. Spurs are essential for dismounted mounted officers, but it is bad form for mounted dismounted officers to wear

them.

Infantry are expected to co-operate with other Arms and on the whole contrive to do so in spite of class distinctions and social differences.

the Clank Corps, a very mechanical force consisting of Whippets, Snippets, tappets and other devices. Co-operation is also obtained from Artillery and Dark Artillery (Walnut troops). Some artillery is known as Draught Artillery (also obtainable in bottles).

Amongst other auxiliary Arms are the Engineers, who are known as the "Flappers" or "Poor Saps" because they are all married or mad. They are skilled in the use of the Pontoons or Vingt-et-un, Bridge, Snap, and other diversions.

Cavalry are of great assistance to Infantry by hiring out horses for hunting. Amongst the famous cavalry regiments are the Greys, the Blues, the All Blacks, the Lancers and the Dancers (10th Hurrahs). They are all keen on foxtrotting and Holy Polo.

The health of the troops is entrusted the R.C.M.C., an Irish regiment whose motto is, "A number nine saves times."

In spite of all this assistance and co-operation it takes seven years to train an infantry soldier and nearly as long to entrain two infantry soldiers. At the end of seven years the soldier is no longer an infant and has grown out of his rude childhood. He is therefore returned to civil life. A certain percentage of old soldiers are retained, however, in order to maintain the profits of the canteen while the rest of the battalion is out of barracks on a route march. For performance of this duty they are given a "Rooty Medal," after which they simply fade away according to tradition.

—From *The N.R.A. Journal*.

— × —

## Open Observer School

The second Air Observers' School in Canada under the Joint Air Training Plan was opened officially at the Edmonton Municipal Airport early in August. It is being operated by Canadian Airways Training Ltd.

— × —

## Patricia Bay

By Flight Lieutenant J. S. Williamson

Just about a year ago the R.C.A.F. Station at Patricia Bay was a pretty bare and muddy spot. Activity there was, in the shape of workmen busy grading runways, but that was about all.

A year has made a tremendous difference.

The war was barely six weeks old when the first detachment of airmen arrived. They were about 30 men under Flight Lieut. G. W. DuTemple and Flying Officer R. F. Begg of No. 111, (CAC) Squadron, Vancouver.

They were housed in various houses around the property, and their one aircraft, a Tiger Moth, sheltered its nose in an old barn. But things soon became shipshape and routine was established.

The Jones' house became the Orderly Room and sleeping quarters. In the basement was set up a wireless station which maintained daily communications with squadron headquarters in Vancouver. The officers made themselves comfortable in the Collier house, although furniture was sparse.

Runways were very much in the embryo, and mud was predominant as the winter rains set in. An old railway grade was used as a temporary runway for the small training plane.

However work went steadily on, the runways began to take shape, and drainage ditches began to cope with the surface water.

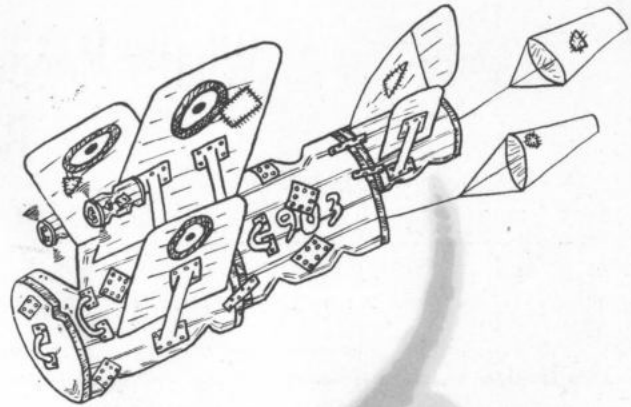
Pretty soon building crews came on the scene. The main hangar and the Administration Building were commenced first, while another crew began remodelling the old Matson House, now used as the officers' mess.

In a few months it was beginning to look like a real airport, and a start was made on the first two barrack blocks for the airmen, the sergeants' quarters and mess, canteen, airmen's mess and guard house.

Meanwhile F/O Malcolmson had relieved F/Lt. DuTemple as O/C, and later F/O Begg took command until the parent squadron arrived.

In mid-May No. 111 (CAC) Squadron was transferred from its Vancouver headquarters, under Wing Commander A. H. Wilson, and soon settled down. The runways were almost completed by this time and flying operations commenced in earnest.

About a month later station headquarters was set up, with Group Captain G. A. Mercer as Commanding Officer. It has been no easy task to get this big new Air Force station running smoothly, build up station standing orders and establish routine, but the kinks are being gradually ironed



FLAGSHIP - SEAPLANE TRAINING

Due to censorship regulations, bomb racks, bombs, machine guns, etc. have been "deleted."

out of the multitudinous details and things are settling down to normal.

Building continued steadily, two more hangars were completed for landplanes, a barrack block built to house the aerodrome guards and a start made on the seaplane hangar and slipway.

At the beginning of August No. 120 (BR) Squadron, under Squadron Leader J. E. Jellison, arrived. The camp was filling up rapidly. The Matson house became too small to house all the Officers, and the new officers' quarters were opened up.

Headquarters staff was swelled by new arrivals, Air Force security troops replaced the guards of veterans and militiamen, and the barrack blocks were soon full.

Plans were quickly completed and contracts let for further buildings, additional barrack blocks for the airmen, quarters for the officers and senior N.C.O.'s, and more hangars.

A regiment of carpenters moved in, and soon the clatter of hammers and rasp of saws vied with blating propellers and roaring motors in a cacophony of noise.

The speed with which those new buildings are going up makes one dizzy. In the morning there is a bare patch of ground with rows of concrete foundation posts. By evening floors and walls of barrack blocks have been completed. By night next day the roofs are on.

Pat. Bay is now a complete little town in itself, busy with the bustle of Royal Canadian Air Force preparedness.

## What's Happening At Jericho Beach

Class No. 5 (BR) Seaplanes is well on its way through the course. All have soloed the Vickers Vedettes and are busy piling up solo time when the vagaries of the weather and the condition of the "Jeeps" permits.

The Hudsons at Sea Island have, it's been rumored, been transferred to Patricia Bay—Farewell ye dreams of long reconnaissance flights.

No. 13 (OT) Squadron made its first long distance reconnaissance flight September 30th. Hudson N7381 in command of Squadron Leader R. G. Briese, Flying Officer Winny, Flight Lieutenant J. L. Gray, Flying Officer C. Gray, Sgt. Hogan, LAC Simpson and AC1 Rogers—W.T. Operator. The plane took off from Sea Island at 0900 hours proceeded via Lethbridge and landed at the new R.C.A.F. field, Calgary at 1230. After a brief rest, lunch and a look over No. 3 S.F.T.S. Squadron, it

commenced the return trip at 1530 hours returning via direct route over the mountains landing at Sea Island Airport at 1800 hours. On the return trip an altitude of 18000 was reached crossing the mountains, course was set by aerial navigation entirely. An interesting sidelight of the trip was the practical experience made by Flying Officer C. Gray and Sgt. Hogan on the ability, or rather lack of ability, of the human stomach to digest a mixture of oysters and pie at high altitudes.

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One of the outstanding social events in the history of the Station was staged Friday night in the Commodore Cabaret, when the entire personnel attended a cabaret dance to honor Wing Commander and Mrs. A. H. Wilson.

Commencing at 2030 hours festivities continued unchecked until the "wee sma' hours" of Saturday morning—hours so "sma'" and so "wee" that many an airman and officer had cause to regret the call of duty and the brassy clarion of reveille.

Dancing occupied the major portion of the evening. An excellent cabaret supper was served while the happy crowd was further entertained by a bright floor show consisting of a number of professional and amateur acts.

Outstanding among the latter was the "Amateur" presentation so ably produced and directed by Sgt. MacLean of H.Q.'s Sqn. Congratulations, well deserved, were in order Saturday for W.O.2

### WINNERS OF THE SILVER CHALLENGE MEDAL

Reading from left to right—Cpl. K. C. Wugh, Headquarters Squadron, Instructor. F/Sgt. J. P. O'Sullivan, Hd. Qrs., 91, prone, deliberate fire, decimal target. AC1 P. B. Mitchell, O.T.S., 50, prone, gas respirator on, Service target. AC2 F. D. Jordan, Hd. Qrs., 41, standing, fire from hip, silhouette target. F/Sgt. E. D. Hansen, Hr. Qrs., 38, standing, fire from hip, silhouette target. Cpl. H. B. Steeves, No. 3 R.D., 49, prone, fixed bayonets and gas respirators on, Service target. W.O.2 J. Jones, Headquarters Squadron, Instructor. Rear Rank—W.O.1 F. N. Brooks, Headquarters Squadron, President Rifle Association.

### WINNERS OF THE BRONZE CHALLENGE MEDAL

Reading from left to right—W.O.1 F. N. Brooks, Headquarters Squadron, President Rifle Association. S/Sgt. N. M. Wallace, R.C.A.M.C., 34, standing, fire from hip, silhouette target. LAC E. C. Skowby, Hd. Qrs., 48, prone, bayonets fixed and gas respirators on, Service target. AC2 F. H. P. Sulley, O.T.S., 38, standing, fire from hip, silhouette target. LAC A. J. E. Saunders, O.T.S., 88, prone, deliberate fire, decimal target. AC1 S. W. G. Webster, O.T.S., 50, prone, gas respirator on, Service target. Cpl. K. C. Waugh, Headquarters Squadron, Instructor.



Neilson and his assistants who organized the affair.

Preceding the dance the popular Flight Lieutenant F. E. Baker and his charming wife were hosts to officers of the Station at an informal cocktail party staged in their home at 4650 West Sixth Ave. into which they recently moved.

The Station regrets the loss of Wing Commander A. J. Ashton and the good wishes of all ranks go with him to his new appointment at the Bombing and Gunnery School, Mossbank, Sask.

**Farewell and Hail:** In spite of the above sincere regret at the loss of one Commander, the Station welcomes the arrival of his successor, Wing Commander A. H. Wilson who comes to us from No. 111 Squadron. His fine record there will be an inspiration for all of us.

Tang of Fall in the air, presaging winter has roused the hibernating hockey player, and plans are going forward in the Station to the organization of a hockey team. With many potentially good players prospects are bright and it is hoped that entry in one of the amateur leagues of the City will be possible. Soccer enthusiasts are also laying plans—more details of which will be known later.

The Station "Winchell" is on the job and more information regarding the comings and goings of personnel will appear in the next issue. A careful watching of the well-known step is advised.

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## First Annual R.C.A.F. Ball

*Victoria*

Co-inciding closely with the advent of the first issue of the "Western Air Command Review" and worthily competing in Service interest as a happy and memorable event, destined, we trust, to find its place as a bright page in the archives of R.C.A.F. activities in Victoria is the approaching date of November 15th, selected for the occasion of the First Annual R.C.A.F. Ball.

Sponsored by the Sports Club of the Western Air Command and enjoying the distinguished patronage of the Air Officer Commanding, Air Commodore and Mrs. A. E. Godfrey and senior officers and wives; preparation for this event will be held in the Ball Room at the Empress Hotel, Victoria, November 15th, are now going forward rapidly.

The festivities will take the form of a cabaret supper entertainment, complete with floor show, favours, and novelty dances. The musical program—specially selected—will be under the capable direction of the leader of the regular Empress Hotel Orchestra—Mr. William Tickle—who will also act as Master of Ceremonies.

Elaborate decorations and lighting effects featuring the crest and colours of the R.C.A.F. will

CONTINUED ON PAGE 14



### AT JERICHO BEACH

In front are seen Air Commodore Godfrey, talking with Air Marshal Croil. To the right, facing the camera are the late Squadron Leader Procter, killed in the crash at Seymour Narrows and on the extreme right, Wing Commander Slimon.

March past in review order at Inspector's General Inspection, Jericho Beach Air Station.

## On The Sports Front

On the sports front, Patricia Bay Station of the Royal Canadian Air Force is in the way of being a formidable challenge to members of the other services, and this coming winter, with formation of the Inter-Service League, should see some pretty doughty games.

The lads in Air Force blue put up a good scrap against the Navy boys the other day in the first soccer game of the season. They held the tough Tars to a 4-3 score, although the game was played only a couple of days after organization of the league and the Air Force team was not in the best of condition from lack of practice.

However, that condition is fast being remedied, and morning workouts for the team are now the rule. The next soccer game should be an even more hard-fought one than the last.

The recent organization of the league promises to prove quite a popular affair. Besides soccer, English rugby, basketball, boxing, wrestling and track and field sports are on the cards.

There's plenty of talent in the Air Force in all of them, and they can be trusted to give a good account of themselves.

P.O. McNeil was the R.C.A.F. representative at the organization meeting of the league. There was also representation from the Navy, Artillery, Engineers, Canadian Scottish, and the 13th Field Ambulance.

This looks like a good aggregation, and promises good sport in the various lines during the winter.

Beautiful weather was provided by the "Met" section for the first game—R.C.A.F. vs. Navy — which proved to be an exciting match. After a ding-dong battle all the way, the Air Force just lost at the finish, and having most of the play, lack of condition told in the final analysis. Scorers for the R.C.A.F. were Watson and Innesley.

Corporal Charman, Air Force coach, although a veteran, showed he had not forgotten the tricks after a long layoff, and played to good advantage among the comparative youngsters when he took the field in the last half.

Although there was a fair field of spectators, a better turnout to cheer our lads along would be appreciated. There's nothing like a good crowd of rooters.

It is hoped shortly to have the Air Force teams garbed in the true service colors of light blue, dark blue and red, to give them real distinction. The present blue and gold colors are only temporary.

Other lines of sports are being organized in the camp. LAC Allard, former B.C. champion tumbling and hand-balancing star, already has a large class of apt pupils training regularly in the temporary station gym.

An active boxing class has also been under way, working out two nights a week in Victoria, where they are receiving expert coaching, and a chance to spar with amateurs and professionals in the fistic art. Any of the lads wishing to join these

classes should get in touch with LAC McLean, Service Police, or AC1 Parrott, Station Stores.

A recent meeting of all personnel on the station decided on a monthly assessment of 25 cents each per month to establish a sports fund.

Members of the committee are: President, F.Sgt. R. R. Campbell, 111 (F) Sqdn.; vice-president, Sgt. Farrows, 120 (BR) Sqdn.; secretary-treasurer, AC1 Watson, H.Q. Sqdn.; F.Sgt. Stoney, H.Q. Sqdn.; AC1 Parrott, H.Q. Sqdn.; Cpl. J. Rickson, 111 (F) Sqdn.; LAC V. Allard, 111 (F) Sqdn.; AC1 Hoare, 120 (BR) Sqdn., and AC1 Verely, 120 (BR) Sqdn.

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## A Fish Story

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A little while ago an egg was laid out in Pat. Bay. A nice, 500 lb. volatile egg.

For a week there had been preparations for the test. Folks around the station wondered just what it would be like. Everybody looked forward to some easy fishing.

Salmon, Ah-h Nice, luscious salmon, stunned and ready to pick out of the water. Mouths watered.

There was good fishing after that egg exploded down in the depths of Saanich Inlet. Every boat around the bay was crammed with eager fishermen, waiting for the explosion.

There was a rush for the scene. Then the fish began to float, belly up, to the surface.

"Caddy" wasn't among the 300 odd that were picked up. Neither were there any salmon.

"They're all grey ling cod," said an expert, wisely nodding his head.

The cooks at Pat. Bay, Otter Point, Heal's Range, Work Point, and military way points, nearly rioted when they had to clean those fish, so generously donated.

Anyway, they were eaten.

And then another expert, who makes his living fishing, threw a monkey wrench into the works.

"They're Hake," he said a couple of days later, when his opinion was asked, "—and they're scavengers!"

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### R.C.A.F. BALL CONTINUED

predominate and add much to the brilliance and gaiety of the evening.

Restricted to Air Force personnel and friends, tickets will shortly be available at \$3.75 per couple with extra guest tickets at \$2.00.

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## Rays to Detect Enemy Planes

*"Discovery" (Great Britain),*

Infrared rays are being utilized in the present war to detect enemy aircraft, according to an article by D. W. F. Mayer. These feeble heat rays, that are given out by an airplane engine, may be picked up by sensitive thermocouples and used to detect the presence of enemy aircraft. Such detectors have been in use for several years in astronomical observatories, for measuring the heat given out by stars and planets.

So sensitive are these instruments that they can detect the heat of a candle at a distance of 50 miles. As infrared waves travel at 186,000 miles per hour, compared with the 1,080 feet per second of sound, heat waves from an airplane engine can be detected long before the sound of the engine is picked up by the most sensitive sound detector.

Experiments have been made with powerful beams of these invisible infrared rays, say Mr. Mayer, which can be directed into the sky and reflected back onto detectors by enemy airplanes. Further experiments have been made, chiefly in America, using infrared rays not only for detecting bombers, but also for destroying them. The heat rays given off by a bomber would be used to steer a small, unmanned airplane loaded with explosive. Such an aerial torpedo would follow the nearest bomber discharging hot exhaust gases.

## Let "Joe" Do It

"Joe" has become quite a pseudonym in R.C.A.F. circles. He's the guy who's picked for the odd jobs — like night hangar guard, potato peeler, sanitary fatigues, and the like. And he's not always AC2 Standard B.D. either.

Where the term started is a bit of a mystery, but it's quite a part of the Air Force vocab. now. If you're "Joe" you're "it."

The "Wags" and "Wogs" of No. 111 (Fighter) Squadron dug up quite a few laughs the other day. They rigged up a dummy (it looked suspiciously like LAC Richards) and labelled it "Joe".

Wing Commander Wilson was making the rounds of the hangar, bidding the lads goodbye before leaving for his new post.

He was a little preoccupied and didn't notice the dummy lounging against the wall near the wireless section.

But "Joe" wasn't being overlooked.

"How do you do, Sir," he wailed.

The C.O. looked a bit startled at the dummy, leaning on a broom.

"Please, Sir, put in a good word for me when you go away. I don't want to be a 'Joe' all my life," it quavered.

The chap at the hidden mike put such pathos into his voice that "Joe's" hat fell off as he emoted.

## Bowling

The R.C.A.F. Vancouver Bowling League (5 pin) started off in full swing Monday, Sept. 23rd, at 9:00 p.m., with 16 teams entered. The alleys chosen were Chapman's Recreations, Broadway. Owing to the large number of men wishing to play, the teams consist of six men with five highest scores counting.

On the second night of play, a very interesting guest was playing for the Officers' Mess Team. That guest was Captain M. C. Robinson, a member of the 8th C.E.F. in the First Great War. Captain Robinson, who spent his sixteenth birthday in France, was promoted in the field. He lost his sight at Vimy on April 9th, 1917. The Captain was married in England and has never seen his wife. He is the Superintendent of the Canadian National Institute for the Blind in Western Canada. In spite of his tremendous handicap, Captain Robinson, who uses a guide rail while bowling, rolled a very creditable score, as the scores of the team below will show:

Wing Commander Ashton	133,	150,	184	—	467
Flying Officer Tomlinson	111,	180,	125	—	416
Flying Officer McDougal	94,	92,	130	—	316
Flight Lieut. McCullagh	176,	224,	147	—	527
Flying Officer Purvis	194,	139,	187	—	520
Capt. M. C. Robinson	114,	101,	120	—	335

The present standing of the League is as follows:

Team	Won	Lost	Pts.
No. 13 (O.T.S.) Clerks	5	1	5
No. 4 (R.D.) Fitters	5	1	5
Stores	4	2	4
Accounts	4	2	4
No. 3 (R.D.) Metal Shop	4	2	4
No. 13 (O.T.S.) Riggers	4	2	4
No. 13 (O.T.S.) Wireless	4	2	4
No. 3 (R.D.) Parachutes	3	3	3
No. 3 (R.D.) Armament	3	3	3
Miscellaneous	3	3	3
Motor Transport	2	4	2
Officers' Mess	2	4	2
H. Q. Wireless	2	4	2
Hospital	2	4	2
No. 13 (O.T.S.) Riggers	1	5	1
No. 3 (R.D.) Stores	0	6	0

## Norwegian Pilots To Tackle Jerry Again

Far from helpless refugees from Europe's battlefield, a group of Norwegian pilots are commencing their training in Toronto to fight the battle of democracy. They are members of the Royal Norwegian Naval Air Force and the Royal Norwegian Army Air Force. These war-experienced pilots, some with as many as 4,000 hours in the air, are planning to use the Toronto Island Airport for advanced training on American service types.

While awaiting delivery of the service planes, the Norwegians are using their time to good advantage. Most of them have been checked out in Tiger Moths at the Toronto Flying Club and are flying regularly. They find the Moths very light after experience on heavy bombers and it was interesting to note their caution in bringing the trainers in just over the fence, being accustomed to using every inch of runway.

### TAKE LINK COURSE

Each day finds a full-time schedule of instruction and training planned for the pilots. In addition to the flying, they have a ground school course and instruction on the Link Trainer. The ground school training covers gymnastics, to keep the men in trim, signalling, meteorology, navigation, etc. (They have their own meteorological instructors.)

All of the men speak English, in addition to French, German and Norwegian (compulsory subjects in their schools at home). Nevertheless, they are taking instruction in conversational English from one of their countrymen who is a master at Upper Canada College.

The Link Training course is given at the University of Toronto Extension Department, and each man is to take a total of five hours instruction over a three-week period. After preliminary instruction in English, the Link pilots are "taken in hand," by their own instructors and the Norwegian language pours from their earphones "under the hood."

At the time of writing no definite date could be named for arrival of the American planes. In the meantime, a Fairchild trainer has been delivered from the United States for instruction and check-flying.

These youthful veterans have a wealth of experience and a surprising store of anecdotes based on their military training and their "baptism of fire" during the hectic nine weeks of the German invasion of Norway.

The defense of their native land was a brave

battle against overwhelming odds in the air, both as to number and quality of aircraft. The naval contingent of the Air Force trained on the Mf. 10 two-seat seaplane powered with a 280 h.p. Armstrong Siddeley "Cheetah" engine. For service flying, they used the Mf. 11 reconnaissance seaplane using a 600 h.p. Armstrong Siddeley "Panther" engine. Both of these types were manufactured in Norwegian government factories. The Mf. 11 was hopelessly outmatched by the German attackers. It had a maximum speed of 140 m.p.h. at 2,950 ft.; landing speed of 56 m.p.h. and a ceiling of 16,500 ft.

The Army Air Force used the Gloster Gladiator, putting up a gallant fight against terrific odds. Some Curtiss P 36's were on order but did not arrive in time to be of service. A high official of the R.N.A.A.F. estimated that the German aircraft were 100 to one in ratio to the Norwegian planes in the conflict. One pilot now in Canada was flying despatch, defying the enemy planes in his Tiger Moth.

Incidentally that man now second in command of the Naval Air Force flew for four years as a commercial pilot for Midnight Sun Airlines operating as far north as Tromso (71 degrees N. Lat.). He piloted a 17-passenger trimotored Junkers 52, flying tourists and other commercial passengers as well as express to the "land of the midnight sun." In his eventual escape from invaded Norway he flew a captured Heinkel 1,000 miles to the Shetland, finding his objective in spite of a heavy fog.

Major Bjarne Oen is in command of the R.A.A.F. (army) contingent here, while the naval group is commanded by Capt. Riiser Larsen. Capt. Larsen was second in command on the Amundsen-Ellsworth North Pole flight in 1925, nearly losing his life when the plane was forced down. He commanded the rescue expedition sent after Nobile and Amundsen in 1928. He escaped from invaded Norway with his wife in a small boat.

It was indicated that training of the visiting Norwegians is a prelude to formation of a contingent here recruited from Norwegians and those of Norwegian descent. It is the advance guard of a Norwegian legion to be recruited from Norwegian-Canadians and refugees, under direction of General William Steffens, liaison officer between Norway and Canada at Ottawa.

(Canadian Aviation.)

**AERO ENGINE TESTING CONTINUED**

In the above notes only normally asperated engines have been considered but it is now proposed to deal with the testing of supercharged engines. Naturally this latter type of engine entails added complication owing to the fact that it is designed to give its desired performance at a predetermined altitude where atmospheric conditions differ from those under which the engine must necessarily be tested. As a result of its advantage at altitude a supercharged engine, generally speaking, cannot under ordinary conditions be run at full throttle at ground level without seriously overstressing the internal components. Special appliances must therefore be added to the testing plant in order to test this type of engine.

**DEPRESSION BOX**

The most important of these additions is a depression box. This is merely a large box attached to the air intake of the engine and fitted with an adjustable opening to the atmosphere. By restricting the passage of the ingoing air a depression can be maintained in the intake manifold which would correspond to the conditions available at any altitude desired. Obviously for the purpose of testing a production engine the rated altitude conditions are the conditions that can be of the most use to the tester. Fortunately it is possible to fortell the atmospheric conditions at any reasonable altitude so the tester has only to make corrections in accordance with the barometric pressure at ground level at the time of test and then maintain the resulting depression in the depression box. This is done by manipulation of the shutters which control the opening of the box to the atmosphere. Under these conditions it is permissible to open the engine to full throttle.

Unfortunately although the depression box will allow the barometric pressure at rated altitude to be maintained in the air intake it does not alter the temperature of the air and this of course falls with altitude. Neither does it make allowance for the back pressure of the exhaust which is naturally less under the depressed barometric conditions at altitude than at ground level. Both these conditions affect the power developed by the engine and so mathematical corrections have to be made before the test is completed.

Reference has been made to atmospheric conditions at altitude. These of course vary from day to day just as much as the conditions at ground level do. It was pointed out earlier that standard atmospheric conditions for sea level had been set by international agreement. So also have standard conditions been agreed on for all altitudes. When correcting the Horse Power developed on test to that which would have been developed at rated altitude corrections are therefore made in accord-

ance with these figures. They are listed at the end of this article.

Having dealt with some of the problems connected with aero-engine testing it is now proposed to consider the actual operation. The following is the procedure usually followed but is by no means universal for all engines.

After an engine is built for the first time it is run in for about five hours at low speed by turning under separate power, usually an electric motor. It is then installed in the test stand and subjected to an endurance test of two hours duration, which consists of running the engine under its own power at rated r.p.m., the brake being adjusted to maintain this power. Before the two hours period starts it is usually necessary to make various adjustments but in any case at least half an hour should be taken in opening up the throttle and allowing the engine to warm up. During the last five minutes the engine is run at full throttle and rated r.p.m. or at rated boost in the case of a supercharged engine.

The engine is then stripped for inspection and should any major replacements be carried out another two hours endurance test will be necessary and the engine again stripped for inspection of these replacement parts. It is usual in practice to take any replacements from another engine which has already done an endurance test so that the amount of retesting can be kept to a minimum.

**THE FINAL TEST**

On the commencement of the final test a one hour endurance run is made under the same conditions as the two hours endurance test. At the termination of this test the various power curves are taken. In the case of a normally asperated engine it is first opened to full throttle and then the brake is adjusted to obtain Horse Power figures for various speeds from maximum permissible downwards. The readings thus obtained are recorded to form a power curve. A second curve called the throttle curve is then taken with the brake set in the maximum power at maximum speed position, and reading taken for various speeds from this setting downwards by adjustment of the throttle only. After slow running and acceleration tests are carried out and observations made for oil leaks, etc., the test is complete.

In the case of supercharged engines the rated altitude curve and the constant boost curve have also to be taken.

The constant boost curve, sometimes called the detonation test, is carried out at maximum permissible boost, and the mixture set in the normal rich position. The test is then carried out by taking readings at various speeds down to the calculated take-off speed. At this speed there should be no signs of serious detonation.

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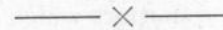
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For the rated altitude curve the air intake is restricted, by the use of the depression box mentioned previously to rated altitude conditions. The curve is run at full throttle with the specific fuel consumption adjusted to a suitable constant value by means of the mixture control.

In conclusion it should be repeated that other auxiliary tests are required in addition to those mentioned above. The fuel and oil consumption of the engine must be known while throughout the test observations are made for undue vibration, overheating, or any form of unsatisfactory running.

**INTERNATIONAL STANDARD ATMOSPHERE**

Alt. ft.	Pres. ins. of Merc.	Temp. Deg. C.
0	29.92	15
2000	27.82	11.04
4000	25.84	7.08
6000	23.98	3.11
8000	22.22	— 0.85
10000	20.58	— 4.81
12000	19.03	— 8.77
14000	17.57	—12.74
16000	16.21	—16.70
18000	14.94	—20.66
20000	13.75	—24.62
22000	12.63	—28.59
24000	11.59	—32.55
26000	10.62	—36.51
28000	9.72	—40.47
30000	8.88	—44.44



**Joint Pilot Training Says U. S.  
Editorial**

The suggestion that the United States air training plan should operate in co-operation with British Commonwealth Air Training Plan was contained in an editorial in the Chicago Daily News on August 20th.

“Our training programme could be tied in with that of the Canadians so as to give them the maximum benefits of our constantly expanding plane production. Our southern training sites can be made available to the Canadian students when bad weather sets in this fall,” the editorial proposed.

The newspaper is published by Frank Knox, Secretary of the Navy.



RE: - EARL GODFREY

## From Bugler to Air Commodore (A.V.M. 1-6-42)

By Kathleen M. Clarke

On July 27th, 1890 a son was born to Mrs. Godfrey, wife of Christopher A. Godfrey, in Killarney, Manitoba: little did they know what a promising and brilliant career lay ahead of him.

The baby was named "Albert Earl" and when he was four months old, they came out West and settled in Vancouver.

As a lad, Earl attended Dawson School and it was there his military career had its foundation. In 1902, when he was but twelve years old, Sergeant-Major Bundy came to the school to select a boy to make a Bugle Band for the 6th D.C.O.R. and he was chosen. From that day until this, he has never left His Majesty's Service.

When the Great War broke out, he joined the 11th C.M.R. in January 1915, and subsequently transferred to the 1st Canadian Pioneer Battalion going Overseas with this unit in November, 1915.

Flying was one of Earl Godfrey's early ambitions. He built an aeroplane in his own basement as far back as 1913, and worked around with the first two aeroplanes that ever flew in British Columbia with Billy Stark and Bill Templeton, pioneers in Canadian Aviation. His greatest desire was to join the Flying Corps, from the time war broke out, but being so far away from England his only access was to join an Overseas unit and try to transfer on arrival in England. But his Commanding Officer would not let him transfer in England and stated definitely that he would not let him go until after he had served in France.

But the turning point came after Godfrey had been with his battalion in the front line at Ypres when the Huns came over and broke through the Canadian Lines capturing Sanctuary Wood and taking a lot of the Battalion members prisoners. From that experience young Godfrey came to the conclusion that the only way to resist the Hun was by every man being equipped with a machine gun.

He set to work and invented and made in France an automatic rifle. His Commanding Officer was so impressed that he took the matter up with General Currie, the Corps Commander. And had Godfrey demonstrate the rifle to General Currie and Brigadier-General Odium who commended him highly and had the invention forwarded to the Inventions Board in London.

When General Currie was shaking his hand to say good-bye he mentioned to Godfrey if there was ever anything he could do for him not to hesitate in getting in touch with him. Godfrey immediately said that he wanted to get into the Flying Corps, and in less than a week's time his application had

been approved for the Royal Flying Corps and he was duly transferred.

It is interesting to note that twenty-four years after this incident the American Army are equipping their soldiers with automatic rifles.

Early in July, 1916, he was commissioned in the Royal Flying Corps as an Observer and was transferred from the Canadian Overseas Forces in France direct to the British Royal Flying Corps in France and served as an Observer in No. 10 Army Co-operation Squadron, equipped with B.E. 2-C's.

His first Commanding Officer in the R.F.C. being Major Mitchell who is now Air Chief Marshal, Sir William Gore Sutherland Mitchell, K.C.B., C.B.E., D.S.O., M.C., A.F.C. and now Inspector-General of the Royal Air Force. It was under Major Mitchell's guidance Godfrey received his early Air Force training.

Godfrey later joined No. 25 (Two-seater Fighter) Squadron equipped with F.E. 2-B's. It was in this Squadron that he was first credited with shooting down two enemy aircraft along with his pilot Squadron Leader Bennett-Baggs, now a director of Blackburn Aircraft Corp. One of his pilots in this Squadron was a Captain Shirtcliffe, a New Zealander and it was a co-incidence that nearly 25 years later, Air Commodore Godfrey greeted his son who came to our Dominion in the 1st Contingent of Australians to train under the British Commonwealth Air Training Scheme.

Another fellow officer of No. 25 Squadron who went on many a bombing raid with Godfrey across the German Lines in 1916 has risen to the rank of Air Vice-Marshal, Arthur Tedder, C.B. and is still serving with the Royal Air Force.

In January, 1917, Godfrey went to England to train as a pilot and obtained his wings at Netheravon at the same time as Col. Wm. Barker, V.C., D.S.O., M.C. with Bar. He returned to France in March and joined No. 40 Squadron equipped with French Newports, single seater fighters. It was in this Squadron that young Godfrey first excelled as a fighter pilot. He was officially credited with shooting down nineteen enemy aircraft and two kite balloons, and winning the Military Cross.

Godfrey was a great believer in fire power and it was while he was in No. 40 Squadron that the Germans brought out single seater fighters with two front guns. He wasn't to be outclassed so made a gun mounting for his Newport for two Lewis Guns. Therefore, having the first British Single Seater Fighter in France equipped with two guns, which was the forerunner of the multi-gun, now the

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It was under his guidance that Major Mickey Mannock started off on his wonderful career as he was in Godfrey's patrol over the lines the day he shot down his first enemy aircraft. Major Mannock was officially credited with over 70 enemy aircraft and was awarded the V.C., D.S.O., M.C., D.F.C., and was killed a few days before Armistice was signed.

Late in September of the same year Godfrey was transferred to the Home Defence and took part in the first night defence battles over London, flying in No. 44 Squadron with the First Sopwith Camel Night Flying Squadron against Zeppelins and Gothas.

One of Earl Godfrey's comrades in this Squadron was Captain Brand who later returned to France in command of a night flying Fighter Squadron finishing the war with the D.S.O., M.C., and D.F.C. to his credit.

Brand made the first Civil Aircraft Flight from England to South Africa in 1920 and was knighted and given the K.B.E. for this achievement. He is now Air Vice-Marshal, Sir Christopher Joseph Quinton Brand, K.B.E., D.S.O., M.C., D.F.C. and is still serving with the Royal Air Force.

Another famous pilot of the same Squadron, Lieutenant Orlebar, who became famous as Officer Commanding the R.A.F. high speed flight and broke the world's seaplane speed record attaining a speed of 385 miles per hour. He is now Air Commodore A. H. Orlebar, A.F.C., i.d.c., p.s.a.

In May, 1918, Godfrey was transferred to the Royal Air Force in Canada. He was promoted to Squadron Leader and appointed Commandant of the School of Aerial Fighting at Beamsville, Ontario. This was the largest flying camp in the Royal Air Force located in Canada and was where all pilots took their final course in aerial gunnery and aerial fighting before proceeding Overseas. Squadron Leader Godfrey was awarded the Air Force Cross for his meritorious work at this Command. The Royal Air Force in Canada was demobilized shortly after the Armistice and Godfrey returned to England to continue his duties with the Royal Air Force until December, 1919.

He was engaged in Civil Aviation for the Dominion Government and took part in the fisheries patrol along the Pacific Coast until he was called back to the Canadian Air Force in 1922.

Squadron Leader Godfrey returned to the Canadian Air Force to command Camp Borden and in succession commanded Ottawa Air Station and Vancouver Air Station.

He was Staff Officer in charge of Operations at R.C.A.F. Headquarters for six years, thence commanded R.C.A.F. Station, Ottawa and on the second tour of duty and R.C.A.F. Station, Trenton.

In September, 1926, Godfrey took leave from the Air Force to pilot J. Dalzell McKee in his seaplane from Montreal to Vancouver and thence to San Francisco. This was the first Trans-Canada seaplane flight and also the first flight made by one pilot from Montreal to Vancouver. The flight was made in 32 hours over a period of six days. In commemoration of this flight, Mr. McKee donated the "McKee Trophy."

In September, 1928, Godfrey obtained a civil aircraft from Mr. Sherman Fairchild of the Fairchild Aircraft Corporation, Long Island, New York, to make a flight across Canada with the first airmail and return via the north. The first leg of the flight from Ottawa to Vancouver accompanied by Sgt.-Major Graham as mechanic, with the first Trans-Canada Airmail, was made in three days. At Vancouver he took on two senior Air Force Officers and started the return trip via Prince Rupert, Prince George, and the Peace River. They ran into thick smoke beyond Peace River crossing and in attempting to land crashed, and were not found for twelve days.

Air Commodore Godfrey is a graduate of the Air Staff College, Andover, 1925-26 and the Imperial Defence College, 1938, highest Empire Military College.

Before returning to Canada after war broke out in 1939, Air Commodore Godfrey made a trip of inspection to the Maginot Line and all Royal Air Force bases in France and some French bases obtaining first hand information on the conduct of the present war. He returned to Canada October, 1939 and was posted to Western Air Command Headquarters as Air Officer Commanding on October 19th, 1939.

Ever since the early days of his youth, Air Commodore Godfrey has been a keen sportsman and well known athlete. He was thrice British Columbia Motorcycle Champion, in 1911, 1912, and again in 1913 when he won the five-mile Championship race on a 1/2 mile dirt track at Hastings Park, Vancouver. He also won the 25-mile Northwest Championship in Seattle, Wash. in 1913. He was considered one of the best dirt track motorcycle racers on the Pacific Coast prior to the last war.

In spite of the heavy responsibility borne as Air Officer Commanding, Western Air Command he still finds time to partake of his favorite sport—fishing and hunting and is very enthusiastic about them both.

He is still keen on flying and travels to all his coast defence stations by air and usually takes the controls himself.

He is modest and quiet spoken, has a keen sense of humour and a remarkable memory for placing people he hasn't seen for a good number of years. He never neglects to speak to a friend no

matter how humble, and he cherishes friendship above all things. He is well liked and very popular among all ranks in the Service and has excelled in executive ability.

In September Air Commodore Godfrey was appointed Aide-de-Camp to Earl Athlone, Governor-General of the Dominion of Canada, he is one of the top ranking officers in the R.C.A.F. today.

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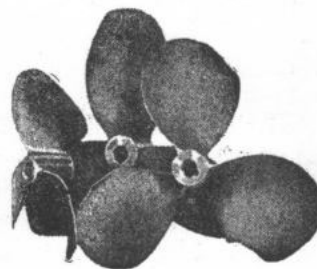


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