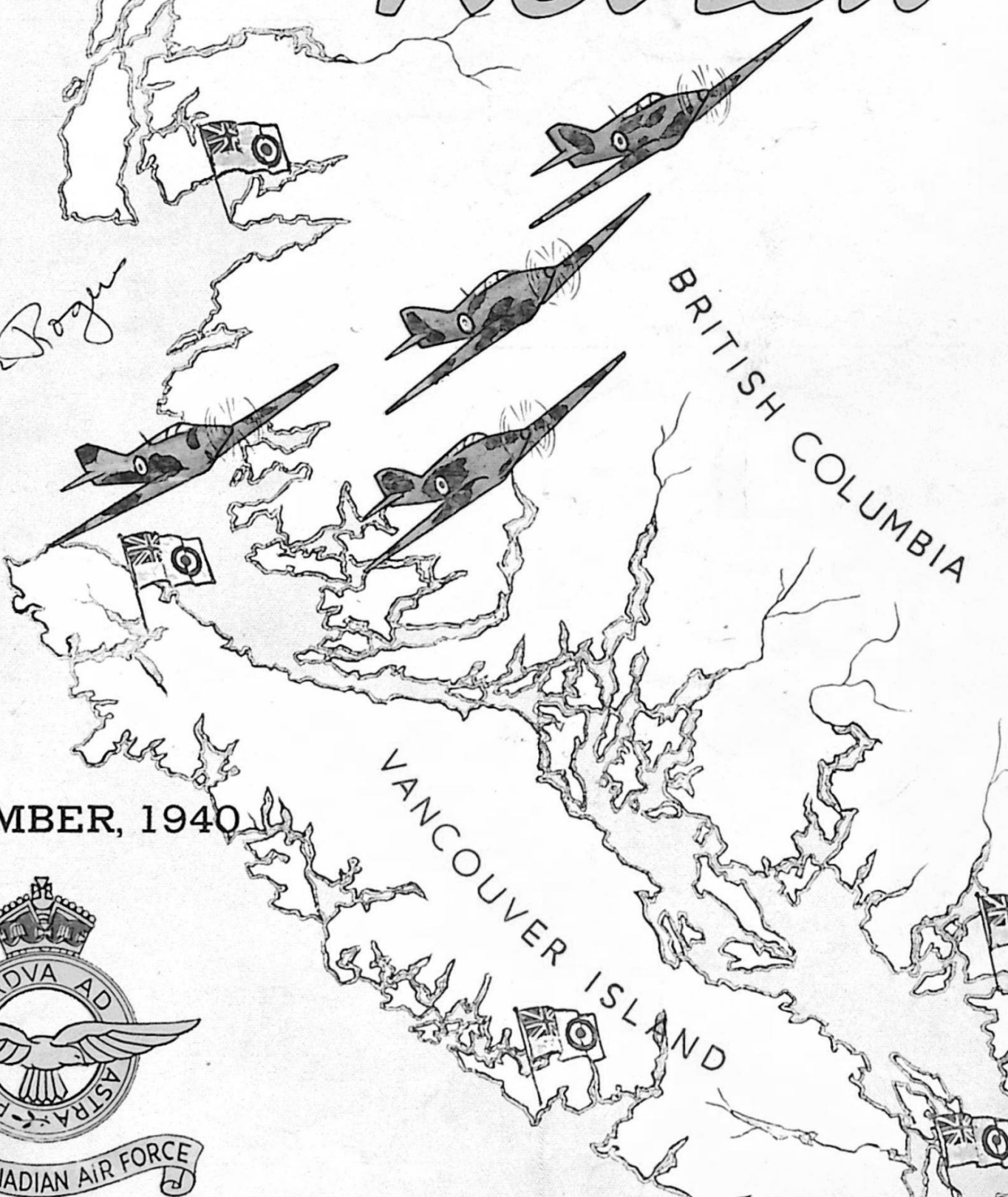


WESTERN AIR COMMAND R.C.A.F.

Review

*Fdg Frank Roger
R64931*



DECEMBER, 1940



Official Organ Western Air Command

B4 Sqn/Western

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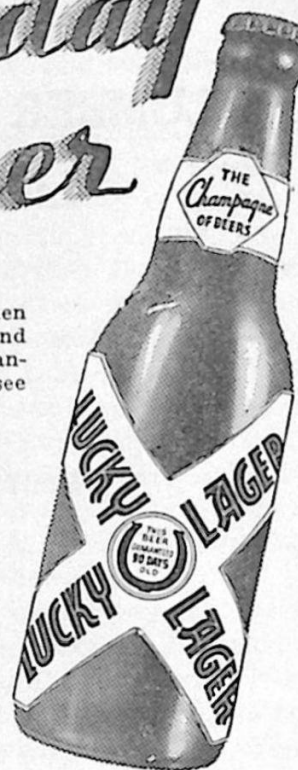
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“Happy Landings”



To all ranks of the Royal Canadian Air Force—wherever they may be or duty call them—Greetings and Hearty Good Wishes for a Merry Christmas and Good Fortune in 1941. England's story is full of stirring tales of victory won in the face of fearful odds, but none more brilliant, surely than the record of our Airmen in these months of trial. “Never in the field of human conflict was so much owed by so many to so few.”

**The Department of Trade
and Industry**

Parliament Buildings, Victoria, B.C.

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Deputy Minister,

Hon. W. J. Asselstine,
Minister.

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

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Editorial

The Air Officer Commanding and Officers of Headquarters, Western Air Command, have been extending official greetings and welcome to several groups of pilot and aircrew trainees, arriving to take up their continued studies under the British Commonwealth Air Training Plan. It has been an honour to have had the opportunity of greeting the trainees selected, appropriately enough, from the other members of the British Commonwealth of Nations, whose homeland shores are also washed by the waves of the Pacific Ocean.

Amongst those who have participated in the various ceremonies welcoming them on their arrival, have been Premier T. D. Pattullo, Premier of British Columbia, Air Vice-Marshal S. J. Goble, Australian Air Liaison Officer at Ottawa, Air Commodore A. E. Godfrey, Group Captain A. H. Hull, Group Captain G. A. Mercer and many others.

In welcoming them to this country Air Commodore Godfrey made the following remarks:

"On behalf of the Royal Canadian Air Force, it gives me a great deal of pleasure to extend a hearty welcome to members of your contingent. You will form a part of the British Commonwealth Air Training Plan on Canadian soil, where airmen from all parts of the British Empire serve together, side by side, with one common ideal in view; to finish their training as soon as possible and go Overseas to strengthen the ranks of their brother airmen and aid their motherland.

"Your coming here is further evidence of the unity of the British Empire and the good progress taking place in the Commonwealth Air Training Plan. There is not a man in the contingent who does not have a keen desire in his heart to complete his training as soon as possible and join his fellow airmen in the R.A.F. to fight shoulder to shoulder against our common enemy.

"The great bond of unity which exists between all parts of the British Empire is found illustrated by the arrival of you trainees from Australia and New Zealand.

"It is not until this great Air Training Plan gets into full swing that the British Empire will be able to bring its full weight against the enemy, by the constant stream of airmen pouring in from the Dominions will Britain's Air Supremacy be assured and Victory made inevitable.

"Every endeavour is being made to bring this about by all members of the British Commonwealth Air Training Plan. All through your stay in Canada you may be assured of all co-operation from every member of the Royal Canadian Air Force and you will always find this spirit of good fellowship prevailing. Although a greater portion of your time will be taken up with training duties, I trust your stay in Canada will long be remembered by you all as a very enjoyable and educational visit. And I want to wish you Success, Good Luck and God Speed."

Jericho Beach

Headquarters Excerpts



Photo by Steffens Colmer

Wing Commander A. H. Wilson
The Officer Commanding—Jericho Beach

Described as one of Canada's outstanding instructors, Wing Commander A. H. Wilson, pictured had the proud record after ten years as instructor to the Aero Club of British Columbia, of not having above in, apparently, one of his sterner moments, one student fail in his tests.

After serving in the R.N.A.S., later the R.A.F., during the former unpleasantness in Europe, Wing Commander Wilson came to Canada. He could not leave aviation, however, and was back at Camp Borden in 1927. He had previously taken Instructor Courses, at Lilbourne, England in 1918 and subsequently took a seaplane course at Jericho in 1929. Before taking over Command at the Vancouver Station he was in command of the 111th Squadron, R.C.A.F.

— × —

Since the arrival of Wing Commander Wilson at Jericho the Staff of Headquarters have taken on a new inclination to become marathon runners. Our C/O came here with a reputation of being athletically inclined and he hasn't in the least disappointed us.

On the morning of November 13th, which some of us are inclined to believe carries an ill omen, the day came and went in its true traditional manner. Markers were called promptly at 9:00 p.m., we all lined up as is the usual custom. It seems some of the boys who are in their dangerous thirtys

were getting a little cold. There was no other alternative but to warm things up a bit. The command was given and alas our Commanding Officer proceeded to show the boys around. The speed at which he took us around the tarmac at the double showed the boys what remarkable agility and stamina our C/O possesses. "Lets have more of this, Sir, it will keep us all in good shape." I am sure we really don't want to be called "sissies" even if the Army lads do think so.

The addition to the Headquarters Staff of F/O Maycock has pepped up things considerably in the stores personnel. Everyone here is of the opinion that co-operation amongst the personnel and officers is a very good thing for all concerned. Greater co-operation means more work and there really is a lot of work to be done.

To F/Lt. Gray, "Congratulations, Sir, on your appointment." It is well deserved and receives the heartiest best wishes of H.Q. Staff. Your pep talks on clerk-accounting were really splendid. Quite a few of the lads were disappointed in learning that they have been relieved of their "A" Grouping.

A little patience combined with lots of work and it will not be long 'till D.R.O. will again blazen your number and name telling all and sundry that you have again been given your "A" Grouping. The rapidity of promotions of the Headquarters Staff personnel has been marked. No doubt you all deserve it boys.

To the Airmen who have lived most of their lives East of Alma Road this cool spell of late "with apologies to our good "Chamber of Commerce" have found many minus their longies (underwear to youse guys). It is a good thing we haven't had Kit Inspection of late for alas, poor Airmen, two complete suits of heavy undies were issued to you.

To the C/O:

Please Sir:

Don't take this last paragraph to heart as it will probably precipitate a "manslide" on the Clothing Section causing our good chum and friend L. A. C. Klein (nee—O'Hallihan) to break down.

— × —

TIMELY GOSSIP ON HOW TO ACQUIRE POISE AND POSTURE

Attention A.C.1 Howard (waist: 60 inches).

Bad posture and carriage wear you down and make you feel fagged out faster than anything else. I want all Airmen to listen to me no matter how young or old you may be. Unless you carry yourself

well you won't have poise. Good posture is the mainstay of it all. There are four positions in which you give yourself away. They are (1) Standing. (2) Sitting. (3) Walking. (4) Dancing. Standing is your first worry. You've got to get that figure "S" out of your back. You can't have your stomach and shoulders protrude. Here is a treatment that the writer personally suggests. With your left hand grab that large muscle just over your right shoulder blade. Dig under that shoulder blade as if you would like to tear it out. Don't be afraid, you're not so delicate. While you do this keep your right hand just above your hip a little toward the back, elbow bent.

Repeat on the left shoulder, digging in with your right thumb. Give five minutes to this treatment, or if you are C.B. take all day, dividing the time between each shoulder. Slumping is caused by poor circulation. Five minutes of this digging will give you plenty of circulation. You may think this is old-fashioned and funny but it is grand to make you stand and walk as you should. If you want more on posture, write to the author and he will be glad to tell you more on this subject.

BASKETBALL

Our basketball team has at last broken into the headlines. You have won your first game men, and no doubt you will win many more. A bigger turnout of Airmen from this station to root for our team will help a lot. Lets all attend their next game. OFFICERS ARE ALSO INCLUDED.

FROM THE WRITER'S PERSONAL DREAM FILE

When you dream of a flying machine:

If flying—Prosperity.

If falling—Who cares.

When you dream of fog:

If in one—Look out for trouble.

When you dream of friends:

If among them—Bottoms up.

When you dream of taking a bath:

If in shower—Remember Ukelele Bay?

When you dream of blankets:

Stay away from Hut 15A unless broke.

When you dream of buttons:

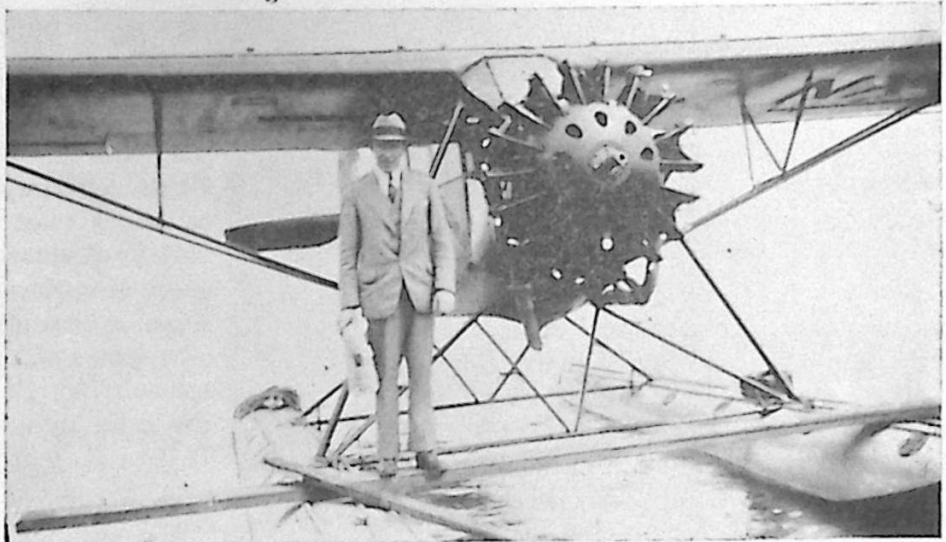
Clean ones—Everything's O.K.

Dirty ones—There goes your week-end.

When you dream of feet:

Swollen feet—Sickness.

Sore feet—See our M.O. Capt. Badger.



Aviation history was in the making when this picture was taken in September, 1926. It shows the A.O.C. standing beside the aircraft in which he made the first trans-Canada seaplane flight from Montreal to Vancouver. The flight was described at greater length in "The Review" for November.

If you dream of garlic:

A.W.O.L.—You won't be missed.

If you dream of hell:

You are going to be "Joed."

When you dream of huts:

DAMNED COLD THEM HUTS.

GOSSIP

Then general trend of gossip at this station seems to be "holidays." (What a hope). Most of the boys intend to leave for their respective homes. Would it not be nice if we could all be together at least for Christmas. As there are usually a few Greta Garbos amongst the personnel of the "I want to be alone" variety, God bless and keep you all.

SCANDAL

The writer of H.Q.'s Staff promised to write a bit of scandal for this issue but he has been so busy in the pursuance of his duties that he could find no time to go snooping, for to be a snooper is to pry into one's personal affairs. I don't care to, besides it is ungratifying and also unhealthy.

The boys of No. 4 (BR) Squadron have been basking in the minor lights of reflected glory through constant press references to the quality of Canada's "bush pilots" now contributing their services to the many activities of the Royal Canadian Air Force.

As their commanding officer they have Squadron Leader C.M.G. "Con" Farrell, D.F.C. whose name is familiar to hundreds of lonely trading posts river watersheds. It is "Con," who alone could and isolated settlements in the Peace and Mackenzie

(Continued on page 7)

About Camouflage

"Camouflage?" says John Public. "Oh, yeah; that's the trick of painting cannons and things with crazy stripes of color, so you can't see them. It started during the World War, didn't it?"

The answer is no, John. Camouflage is merely a modern term for a tactical device as old as war itself. It has been employed in one form or another in almost every conflict since history began. The use of colors and broken patterns to imitate the effects of light and shade in nature, for the purpose of deceiving the enemy, has been well-nigh universal.

Protective coloration as applied to army aircraft appeared late in 1916. The Germans seem to have been the first to use it, and their Halberstadts, L.V.G.'s and Albatrosses shed their bright colors and replaced them with the dull, crazy-quilt tints of camouflage. Various arrangements of design and color were tried, ranging from regular, geometric patterns applied at the factory, to the wildest sort of daubs executed by field mechanics.

Allied air units quickly followed suit, displaying a tendency toward the irregular, stripe designs of ground camouflage. The prevailing colors used by both sides were tones of green, yellow and brown, with occasional flecks of red. Long-range night bombers were either given an overall coat of dull black or finished with drab tops and sides and dull-black bottom surfaces. Many of the English fighter squadrons adopted the practice of painting the under surfaces of wings and fuselage a pale sky-blue color. In all cases, both Allied and German, recognition colors and symbols were, of course, retained.

During the years following the Armistice, the use of camouflage for aircraft was discontinued. With the revival of dress uniforms for the personnel of post-war armies, peace-time color schemes were created for military airplanes. The standard national insignia were augmented by varicolored identification stripes and numerals, together with squadron crests and mottoes.

Then the continued crisis in various parts of the world had the effect of placing almost every great air force upon a war basis and this automatically reinstated camouflage as a regulation finish. Practically all protective coloration used today follows standardized patterns, scientifically developed for each particular type and model. They are put on at the factory, leaving only the individual identification markings to be applied by the unit to which the machine is assigned.

In working out these standard colors and patterns, we find that the designers employed by the various powers have arrived at substantially the

same answers. The planes of Germany, France and England, therefore, now resemble each other closely as far as color is concerned, and can be identified only by means of their national insignia and differences in structural design. The topsides of pursuit ships are painted with a camouflage design of olive-green and yellow-brown, nicknamed "sand and spinach" by Britain's airmen. The undersides of the little fighters are done in white or sky-blue. This same general color scheme is also used on day bombers, observation and ground-attack machines. Night bombers and fighters substitute a nonreflecting black paint for the sky-blue tints and partially obscure their insignia.

How effective is aerial camouflage? Can it really make a plane invisible? The answer is no. We can no more make a plane invisible with paint than we can make a man invisible with a trick coat. However, if a man blackens his face and hands and wears black clothes, he becomes practically invisible in a dark room, even in the beam of a flashlight. Ski troops dressed in white coveralls are almost invisible against a background of Alpine snow fields. Both of these are examples of good camouflage.

The same principle applies to aircraft. Against a light sky, the opaque shadow of the underside of a plane is at least partially neutralized by painting it white. Viewed from above, the recognizable outlines of the ship are broken up by good camouflaging, which tends to melt it into the vari-colored landscape below.

There are two distinct types of camouflage, each with an entirely different function. So far, we have confined ourselves to the protective-coloration type, which tends to make an airplane difficult to see. It is employed to disguise long-range craft operating over enemy territory. The second type is called "dazzle camouflage." This type breaks up the outlines of a plane and reduces it to a bewildering maze of weirdly colored angles, something like cubist art. The idea is that when a dazzle-painted ship flashes across an opponent's sights, it is almost literally impossible for him to make head or tail of it.

Dazzle camouflage is intended primarily for short-range, local-defense fighters. These ships, assigned to the protection of strategic and industrial centers, have no need of disguise or fear of enemy ground batteries. Their camouflage aims at increasing their combat efficiency in dogfighting and in readily distinguishing them from the hostile raiders.

The Padre's Corner

It is appropriate that the Journal of an Air Force which pilots the sky should find a place in the columns for its own Sky Pilot.

Whatever the individual may care about Religion—the Empire recognizes its importance, for the Navy, Army and Air Force will provide for the appointment of a Chaplain whose task it is to be concerned with things spiritual.

The tradition of the King's Service has always been to honour the name of God, reverence the day of God and respect the man of God. The fact that the Chaplain is usually known by the friendly and fatherly name of "padre" is a sign that his place is acknowledged and appreciated.

The Chaplain's Service to the Western Air Command, R.C.A.F., has its own problems. Our airmen are widely scattered in their strategically located stations and we have not the great concentration of men that obtain in large training centres. The padre who lives permanently with one set of men in barracks or camp is more regularly available and therefore more quickly known. To many of our air stations the Air Force padre is only an occasional visitor, turning up, we hope, like the old time circuit rider, with a smile on his lips and a message of good cheer in his heart.

The Air Force flag covers his Altar from which Church Parade is conducted and on which the Holy Communion is celebrated. He conducts the Sacraments of Baptism and Matrimony and other such religious services as occasion requires. Many hundreds of New Testaments bound in Air Force blue are distributed. Education, sports and entertainments take up much of his time for his job is the keeping up of morale as well as Christian morals.

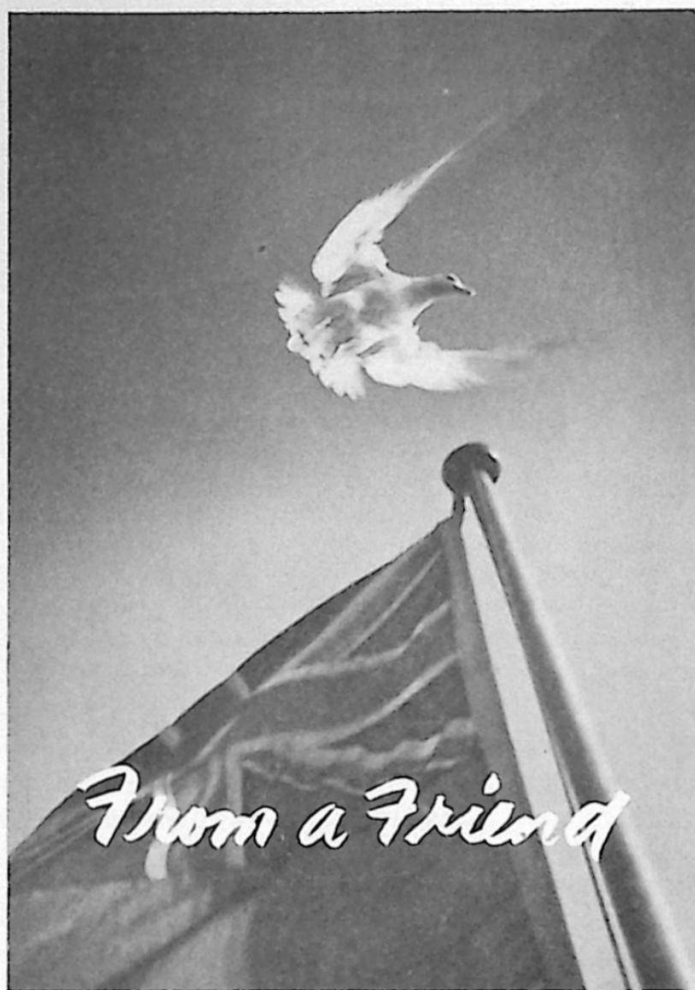
He believes our cause is right in this present war but he also believes we must make our lives as right as our cause.

Relatives and friends may rest assured that the Air Force personnel from the Air Officer Commanding to the most recently enlisted airman give nothing but kindly cooperation to the padre who comes in the Name of Jesus Christ.

May He who came long ago to Bethlehem, give you all a Holy Happy Christmas!

— × —

Photographic prints of the picture on page 7, without lettering, may be obtained from the photographer upon application to the Editor, Western Air Command Review, 234 Rogers Building, Granville Street, Vancouver, B.C.



For Women Only

Air Force wives in sheltered city homes would no doubt be horrified at the conditions put up with by the girls in Ucluelet.

But strangely, these pioneer women, who have chosen to stick with their husbands, are among the happiest in the country.

They might live in tents and one-room shacks, they might have to disguise their beauty under sou'-yesters, slickers and gum boots, but they never try to disguise their smiles and high spirits which are a result of doing their part "on operations" with their man.

We are very proud of their courage.

—F.R.L.J.

— × —

There is great speculation as how St. Nicholas will arrive; will it be by the H.M.C.S. Combat, or one of those P.B.Y. things we hear so much about.

An Introduction to Aero Engine Principles (Part One)

By *Flt.-Lt. W. P. Dunphy*

Some of the most confusing problems met by the newly recruited Aero Engine Mechanics arise from the failure to realize the significance of the varying atmospheric conditions in which an aeroplane operates. Recruited, as the majority of these mechanics are from the automobile trade, they are accustomed to regard the atmosphere as being of a temperature and pressure the variation of which is so small as to make little or no difference to the running of the engine. Consequently they have difficulty in understanding either the purpose or function of many aero engine components the like of which they have never seen on an automobile engine.

Though an aero engine differs from its automobile counterpart in many respects on account of the wide difference in power output it is with the means adapted to allow an engine to perform under varying atmospheric conditions that we are concerned here.

It is a well known fact that with increased altitude the temperature and density of the atmosphere decreases. What the aero engine mechanic must thoroughly understand is the fact that the decrease in atmospheric density will result in a proportional decrease in the power developed by an engine while a decrease in atmospheric temperature will result in an increase in power. Unfortunately the variations due to altitude of the two atmospheric characteristics do not effect the engine to the same extent. The drop in power due to reduced density is more noticeable than the increased power due to reduced temperature.

HEATING DEVICE

The decrease in temperature can be more noticeable through its adverse effect on the carburation of the fuel and also through the increased danger of engine failure due to "icing up." The majority of engines are consequently fitted with a device with which the temperature of the intake air can be increased and seldom is any effect made to reduce it beyond avoiding the use of this heating device.

In describing the series of events which result from variations in atmospheric conditions only normally aspirated engines are considered. Supercharged and high compression engines will be dealt with later when explaining the means employed to counteract the effects of increased altitude.

The power of any internal combustion engine, be it automobile or aero, depends on the amount by weight of oxygen, obtained from the intake air available in the combustion chamber for combus-

tion. It does not depend on the volume. Opening the throttle does not allow a greater volume of gas to enter the cylinder. It merely decreases the depression in the induction passage and allows the passage of the same volume of gas but of higher density. After all the volume of the gas is the same when it is compressed inside the combustion chamber ready for ignition no matter what position the throttle is in. If at the time of opening the throttle the density of the air fell to such an extent that the weight of the charge entering the cylinder was the same as it was before opening the throttle, then there would be no difference in the power developed. Look at the matter in another way. Suppose the throttle were left in a set position and suppose the density of the air were to fall. The result would be a decrease in the weight of charge entering the cylinder, and a consequent decrease in the power developed.

This is exactly what happens when an aeroplane gains altitude; the density of the air decreases, the weight of the charge available for combustion decreases, and so the power developed decreases.

When speaking of the air in the charge it is really the oxygen content in which we are interested but as the designer makes no attempt to separate the gases we can regard the air as an element. No mention has been made yet of the strength of the charge by which is meant the ratio of the amount of petrol and air which combine together to make the charge. This must of course be kept within certain limits. Unfortunately a change in air density does not automatically result in a corresponding change in the amount of petrol drawn through the jet and the mixture consequently becomes richer in petrol as the aeroplane reaches the decreased atmospheric pressure at altitude. Actually the rate at which the mixture becomes richer is inversely proportional to the square root of change in air density.

MIXTURE CONTROL

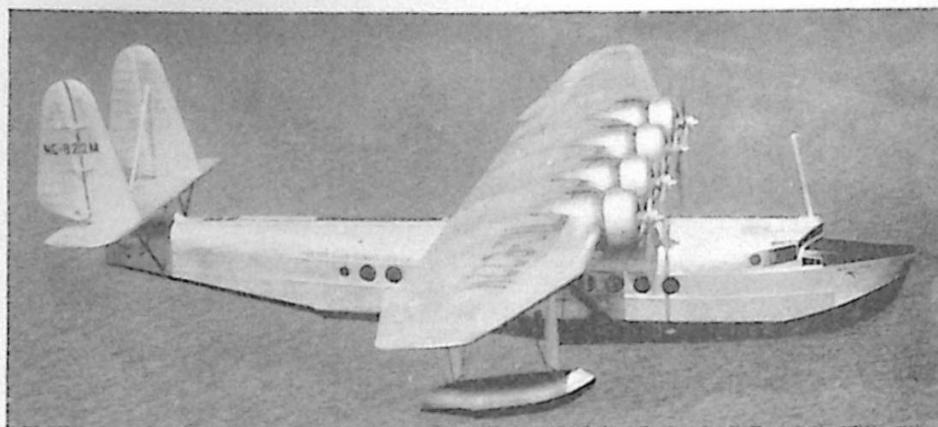
It follows therefore that an aero engine must be fitted with a device which is independent of the throttle and which can regulate the petrol-air ratio. Such a device is naturally called a mixture control although it is sometimes erroneously referred to as an altitude control since it is due to changes in altitude that its use becomes necessary. There are various types of mixture controls depending on different principles but these will be described briefly later. Sufficient for the moment to say that they have no resemblance to the automobile choke.

Mention was made earlier of the effect of atmospheric temperature on the power of an engine. Air, like the majority of substances, shrinks with a decrease in temperature but this shrinkage does not effect its weight since weight is something which can neither be created or destroyed. Therefore a reduction in air temperature will result in an increase in the weight of any specific volume of air. The weight of the volume of air drawn into an engine cylinder for example will increase with any decrease in temperature and as the power developed is dependent on the weight of this air there will be a corresponding increase in power. In practice however the intake air undergoes several changes in temperature before it is finally compressed in the cylinder head. It loses heat following a reduction in pressure on being drawn into the carburettor. It loses more heat through its effect to vaporise the petrol. It gains heat in the case of a supercharged engine through an increase in pressure on leaving the supercharger, gains more heat from contact with hot parts of the engine and finally gains yet more heat on being compressed inside the combustion chamber. The reduction in temperature due to altitude however is only about 1 degree C. for every 500 feet so its direct effect on the power developed need not concern the average maintenance mechanic.

Actually for test purposes a variation in power is assumed to be inversely proportional to the square root of the absolute temperature in degrees Centigrade at the air intake.

Having explained how a change in altitude can effect the running of an engine it is now opportune to describe the means employed to affect this effect.

As previously mentioned the power developed by an engine depends on the amount of oxygen available in the combustion chamber, and this depends on, among other things, the density of the



If you see this, don't start shooting. It's a Pan-American aircraft on the Seattle-Juneau run, a vital link in the communications system of the West Coast.

atmosphere at the air intake. Obviously if that atmospheric density could be maintained the power developed would remain the same for all altitudes—disregarding for a moment the effect of temperature. Actually the power available for useful work would increase with altitude owing to the decreased amount of power lost in overcoming exhaust back pressure. It can be stated in fact, that under these conditions, and using a fixed pitch propeller, the engine speed, rate of climb and speed of the aircraft in level flight would increase inversely as the square root of the relative air density.

Fortunately, by the use of an air pump called a supercharger, it is possible to maintain within limits any intake pressure up to any predetermined altitude but only at a price. The power required to drive a supercharger, amounting sometimes to over fifty horsepower, must be taken from the power after it has been developed while the rise in temperature of the air during compression in the supercharger has an adverse effect on the power developed as explained earlier. For this reason the supercharged engine is not necessarily able to deliver the same power at the airscrew at altitude as the unsupercharged engine of otherwise equal capacity can at ground level. However the power lost in engines having mechanically driven superchargers is counterbalanced to a considerable extent at altitude by the decrease in exhaust back pressure and, everything considered,

a supercharged engine is very much more powerful at altitude than the unsupercharged engine at the same altitude.

For this reason superchargers are now almost universal on engines of more than 500 horse power.

If a supercharger can produce ground level induction pipe pressure at altitude it is obvious that it would have no difficulty in producing an even greater pressure at ground level with a consequent increase in power. Unfortunately the explosion pressures produced under these latter conditions could be so high as to seriously overstress the connecting rods and other parts of the engine. However it is possible to allow some increase in intake pressure and take advantage of the extra power thus obtained but this must be controlled so that the limits set by the designer are never exceeded. The obvious way to do this is to manipulate the throttle. At low altitudes therefore a supercharged engine must be throttled back so that the engine is not overstressed by the use of high induction pipe pressures. In early type supercharged engines this was done manually and was of great inconvenience to the pilot particularly during take-off when he had other things to attend to. He also suffered great temptation to open the throttle and exceed the maximum permissible boost regardless of the other consequences knowing that extra power would be produced.



The R.C.A.F. Station, Patricia Bay band at the inspection of the Guard of Honour for the Joint Securities Commission.

Nearly all British and many American supercharged engines are now fitted with automatic controls which maintain fixed induction pipe pressures irrespective of the position of the throttle control in the cockpit.

This induction pipe pressure above standard atmospheric pressure is called "boost." The boost which will produce rated horse power at rated r.p.m. is called "rated boost" and the maximum altitude at which rated boost can be maintained is called "rated altitude."

The designer usually allows a boost of even greater pressure than rated boost but on condition that it is maintained for a few minutes only and this is known as "take-off boost" since the extra power obtained is used chiefly for take-off.

Before superchargers became common it was the usual practice to increase the compression ratio on high altitude engines and thus get more power without increasing the weight of charge. The amount by which the compression ratio can be increased is limited however owing to a tendency on the part of the fuel to detonate. Partly on account of this and partly on account of the increased reliability of the modern supercharger, the supercompression engine is fast giving way to the supercharged engine.

In order to understand thoroughly the various methods employed to control the mixture strength it

is necessary to have a good knowledge of carburetors generally and these will be described in a subsequent article. The basic principles only are described here.

Perhaps the simplest method of mixture control is to employ an additional air passage the opening of which can be controlled manually. Simple as this device may seem it is very seldom used on modern engines, the extra space it takes up being its chief drawback. A more commonly used method is to control the amount of petrol flowing to the jet by the use of a needle valve in the metering jet. Another method, perhaps the most satisfactory, is to control the atmospheric pressure in the vicinity of the jet and in the float chamber.

Like the boost control the mixture strength can be controlled automatically in accordance with the atmospheric pressure. Modern British engines like the Rolls-Royce Merlin and later Bristol Pegasus are fitted with these automatic controls. These will be dealt with later in conjunction with automatic boost controls.

—W. P. Dunphy, Flight Lt.,
Technical Officer, No. 3 Repair Depot, Vancouver, B.C.

— × —

The boys are figuring upon hanging up their stockings, but what we have noted, leads us to believe that they will stand up on their own. We refer to the stockings and not the boys, but here's hoping.

Old Jennie Goes Strong

It's only a battered mass of brass and copper that emits clouds of steam and sundry whines and wheezes but as its pensionable date nears, it renders stellar service.

It requires more attention than an aircraft to keep serviceable. It was evolved in 1906 when bustles went out of fashion. By its slow rock and uncanny hisses, it has earned the name of the "Link Trainer."

It first came to this west coast station in August, 1940 as the answer to a plea to the public for something that would relieve the airmen of the arduous job of washing greasy overalls and such by hand.

Designated a "washing machine" on the manifest of the C.P.R. boat that left it here, it brought expressions of wonderment from the electrician, the fitter, and the rigger who had been assigned the task of making it serviceable.

They stripped it. On its base they found the date of origin — 1906. They operated it manually to find the secret of locomotion. They cursed as they called in a welder to fix the frame, a machinist to straighten the ancient rocker arms. It leaked water and the motor refused to function without a fitter in constant attendance. But air force training and perseverance won over age and the boys had their washer.

Its day is almost finished. Soon a new type of "rotary" washer will take its place. But when something as ancient as this comes out of history to assist the war effort in easing the hardships of active service, credit must go where credit is due.

—A.G.C.

— × —

Incidents, Humorous Or Otherwise

An Orderly Room Case

Two Airmen hunting pheasants inadvertently trespassed on a prohibited area guarded by an Army Detachment. They were paraded before the Officer Commanding with "shot guns" at the slope. They smartly ordered "shot guns" before being addressed by the O.C. who gave them some good advice, and very generously dismissed them and allowed them to continue their sport. The part of the story which is not told, is whether they should have presented "shot guns" or merely given the butt.

Preparedness

An Airman recently fell in on parade with great coat, rifle and bayonet minus his web equipment. On the command "fix bayonets"—the Airman was seen to extricate the bayonet from somewhere in the region of the left nipple.

Disobedience to Orders

The orderly officer whilst making the rounds of the Marine Craft in a DINGHY one dark night, was challenged by a sentry on the sea wall. "Halt! who goes there," "Orderly officer" was the reply — "Advance one pace and be recognized" was the order—since the officer in question was not wearing a bathing suit at the time, the order was not literally complied with.

Belgium Front, 1915

Between the N. and O. Section Trenches, the front line parapet had caved in for about 100 yards, and this open section was patrolled by three Privates in charge of a Lance Corporal. Their orders were to halt all persons coming up the line or going down the line, especially from the Bois Carre communication trench, ascertain where they came from, and where

they were bound for, also what their business or duty was.

Just about this time there was a strong rumour, that did not emanate from No. 1 Pan, but from the "powers that be" that a certain German spy was going about the line in a British Officer's uniform, also that he spoke a cultivated brand of English. The reward for his capture was ten Bradburys, and ten days leave in Blighty. The reward was spoken of in hushed whispers by the Troops.

A Lance Cpl. and three Privates were detailed from No. 11 Platoon for the patrol, and when giving the L.Cpl. his orders the Platoon Sgt. suggested that any person coming from the right should be accosted as follows: "Halt! who goes there, advance one and be recognized. Do you come from the Durhams on our right?" If the answer was in the affirmative—pinch him—as the 19th Btn. C.E.F. are on our right, and the answer would be very suspicious.

The L.Cpl. was Scots, and vury, vury canny, he was vury anxious to see Auld Reekie again, and he thought the sergeant's suggestion was unco fine.

It was a nice bright morning and L.Cpl. Mac was doing sentry duty himself, owing to unforeseen causes by which his guard had been sent on fatigues sanitary and otherwise, the primary reason being that the canny Scot wanted a chance to earn that ten and ten. It was about 10:30 ack emma that he saw a resplendant vision coming up the Boise Carre, with clean leggings, clean Sam-Browne buttons, and badges that would dazzle a Sergt. Major after the fifth one. This sight was enough to make even a L.Cpl. grind his teeth and murmur words that he did not learn at his mother's knee. The following ensued. "Halt! who in h . . . comes thar! Haw haw, an officer may man," "I'm not yer man, I'm a perishing L.Cpl. unpaid—tut tut you Canadians are too bally impertinent, rawther too blunt don't cher know." Mac was

just raging and he shot back, "Do ye come fra the Durhams on our right?" "Yaas" replied the officer. "Ye are a bluidy liar," replied Mac. "Pit yer G . . . d . . . hands up!" and the jubilant Scot marched him down the muddy trench with his bayonet just behind one inch from his trembling posterior, joyfully hailing his comrades that he had earned the ten and ten.

On examination it was found that the capture was the real unadulterated product of London Town, with a lisping accent, and was posted to the Fighting 5th our our left.

Poor Mac was vury disgrunted and remarked that "it was a pity that they did not speak King's English in London Town, the same as they did in Auld Reekie.

Information Circular, 1914

The size of the bottle brought into camp is governed only by the size of the guard gate.

A Poor Pun

The recent cold snap on the Pacific Coast caused many stations to try out their new heating plants. It was unfortunate that many Commanding Officers were caught with their "plants down."

— × —

News From Edmonton

We regret to advise the death of Rev. George MacDonald who last week received his appointment as Chaplain in the Royal Canadian Air Force as Flight Lieut. The funeral was held on the 19th of November, a number of officers represented this station.

The second class of trainees graduated from this school recently without a failure. The most proficient student R 58112 L.A.C. Hunter, R.C.A. was presented with a specially engraved gold disc, by Mayor J. W. Fry, in the presence of his class on the parade ground; he also had his name engraved on the James A. Richardson trophy presented to the school.



"A Sound of Revelry by Night"

At The First Annual R.C.A.F. Ball, Victoria

The Royal Canadian Air Force, Western Air Command, made its social debut last month at the cabaret ball which was held at the Empress Hotel, under the direction of its sports club, the success of this, the first social undertaking, speaks well for any similar events which may be staged in the future. The crystal ballroom and the ballroom foyer were thronged with a gay crowd of over 500 dancers and everyone attending pronounced the ball an unqualified success from every point of view.

The ball was given under the distinguished patronage of His Honor the Lieutenant-Governor, the Premier and Mrs. Pattulo, Air Commodore and Mrs. A. E. Godfrey, Commodore and Mrs. W. J. R. Beech, Brigadier and Mrs. C. V. Stockwell and Mayor and Mrs. Andrew McGavin. His Honor the Lieutenant-Governor and Mrs. Hamber, who were accompanied by Mrs. Mae Rice and Mr. Hew Paterson, A.D.C., were welcomed to the official table by Air Commodore and Mrs. Godfrey and members of the committee.

THE DECORATIONS

The ballroom decorations carried out the air force theme, each of the tables being decorated with red, white and blue ribbons with the air force targets at each end. On the special guests' table, arranged in a three-sided oblong formation, miniature airplanes added a distinctive note to the general scheme. Round the walls were festooned red, white and blue streamers and over the fireplace in the foyer was a large glittering airplane, with propellor blades on the mantelshelf.

The air force, as the youngest service, had enlisted the co-operation of the navy for the occasion, and a twelve-piece orchestra, composed of members of the Royal Canadian Naval band from Esquimalt, played the dance music. The specially chosen programme, played with spirit and a splendid sense of time and rhythm, drew many words of commendation from the dancers.

At each guest's place were comic hats as favors, and as mementos of the occasion, air force winged pins were presented to the ladies. Iridescent airplanes superimposed on the drop curtain behind the orchestra platform and above were the words "There'll Always Be an England." The words echoed loudly when the band struck up the music of this popular chorus and the audience joined in singing with a sincerity which was infectious.

HOBBY-HORSE RACE

The "hit" of the evening was the hobby-horse race, a sport in which many of the guests took part, the difficulties experienced by the "riders" bringing forth shouts of applause and merriment from the onlookers.

The pictures on this page aptly catch the spirit of the occasion. In the centre picture above are, seated, Mrs. A. E. Godfrey and His Honor Lieutenant-Governor E. W. Hamber while standing are seen Mrs. Hamber and The Air Officer Commanding.



What Others Say

Speed of Britain's Spitfire

"Trade and Engineering," London, April, 1940.

A great deal of information has come from the United States recently concerning the merits of the latest types of airplanes . . . and their performances have been painted in glowing colors. Mean-

while nothing is said about any new types of airplane which may be in the course of development in this country. The reason for our reticence is plain. It is to prevent the enemy from obtaining information which might be useful . . .

It is true, however, that the publication of facts and figures concerning American aircraft and the withholding of facts and figures concerning new British aircraft tend to give a false impression . . .

In the House of Commons recently Sir Kingsley Wood, the Secretary of State for Air, mentioned that the top speed of the British Supermarine Spitfire singleseat fighter had been increased by a further 10 per cent since the machine had come into service. Now exactly what Sir Kingsley meant is open to doubt. He said "a further" increase, and if that was his precise meaning it would bring the speed of the Spitfire up to more than 400 miles an hour, for the previous top speed, as established at Martlesham Heath, was 367 miles an hour.

It may be, however, that his meaning was that the top speed of the Spitfire had been increased by an aggregate of 10 per cent since the machine first came into the squadrons. This would make it more difficult to determine exactly what the speed is now, for there is no figure to go by, but it may be guessed that the Spitfire speed is now somewhere near 400 miles an hour. That, of course, is the true air speed, after all the appropriate corrections have been made. It is not the air speed indicator reading.

Great Britain's new airplanes may be expected to show a substantial increase in performance over the types which are now in use in the squadrons. Indeed, it has been stated in the House of Commons many times over that the new machines will show that substantial increase.



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Aircraft Recognition

By Track

Silhouettes have been very popular for learning to identify aircraft. The silhouette has its uses; but for the really important moment of identification, for the moment when life and death depend upon a correct decision, taken quickly, the silhouette—no matter how well learned, is entirely valueless.

This fact has been tragically demonstrated in attacks on ships and especially on the "Domala," when the enemy aircraft approached low with navigation lights on and, before the gun crews had decided that it was hostile, had secured damaging hits with its bombs.

Let me make it clear that this form of identification is for the man to whom early identification is life and death. He must use it and none other. To him silhouettes (much as I like the ones in this journal!) are useless because they are too slow. **It is no good employing the leisurely methods of the art gallery in 300-miles-an-hour warfare.**

The man I mean is the man who is sitting up in an aeroplane—bomber or fighter—and the man who is by a gun. For them early identification is vital because it is a matter of acting first. The first salvo of bombs or bullets may conclude the engagement. It is the old saying brought up to date with a vengeance: "Blessed the man who hath his quarrel just; but thrice blessed he who gets his blow in fust!"

In the ill-fated "Domala," the first salvo from the enemy told. The gunners made their identification mistake and had no chance to rectify it.

Now let us sort out this problem calmly and logically.

To attack a ship, an aircraft must come within a "cone of offence." That cone is determined by the trajectory of its bombs and by the range of its machine guns. Machine-gun range is short, and the

aircraft will have to be very close indeed before its machine guns will tell. But if it is going to launch bombs, it must not only be within the offence cone, but its track must point towards its objective.

Here is the essence, then. If the other aircraft is attacking, its track must first point in the direction of its target—be it ship, ground position or another aircraft—and keep pointing in that direction until it is within the cone of offence determined by the trajectory of its bombs and the range of its machine of small-calibre guns.

Here, then, is the key to the situation: observation of the track of any approaching aircraft. If the track points at the spotter, the aircraft is probably hostile. There is the whole story. It does not matter what shape the aircraft is, or whether it is painted black and white, or blue and purple spots. If it comes straight at you and gets near that cone of offence, open fire if you've got a gun which will reach it and use evasive tactics if you're in an aeroplane.

Do not wait and gape like people watching acrobatics. If you do, the first certain sign you will get about whether the machine is hostile or otherwise may also be the last sign you will get of any kind.

A ship at sea, if it observes an aeroplane flying low and making directly towards it, will get its guns ready. If the aeroplane is very low, it will have to be near before it comes within the cone of offence and can bomb. So fire can be held. But if the aeroplane persists on that track, fire must be opened before it can bomb. That is the practical translation of the method.

—"Canadian Aviation."

— × —

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Moving-in Day at Ucluelet.



Grumman entering the water at Ucluelet.

Four (BR) Entertains

Airmen stationed at 4 (BR), Ucluelet, find plenty of amusement and entertainment. Talking pictures are the main attraction and 4 (BR) is fortunate in being able to provide the airmen with two or three shows a week. The married personnel and their wives have a special night set aside. "Picture Night" finds the canteen jammed to the doors and every available chair occupied.

Concerts and Sing-Songs are another feature on the 4 (BR) evenings. November 13th produced a varied program and surprising talent by the airmen.

Those taking part included W.O.2 O'Kelly, Flt. Sgt. Astrof, Cpl. N. Donaldson, Cpl. J. A. Smith, Cpl. Peters, L.A.C. Hider, A.C. Dixon, Pte. M. Bruce and Sgt. McLuhan of the dental corps.

On the following Wednesday an

amateur contest was held and some startling and unexpected talent was unearthed when A.C. Ward-Whate and A.C. Thomson nosed out Air Gunner L.A.C. Yount for the first prize. Ward-Whate and Thomson provided an amusing skit consisting of a mock orderly room trial of an airman who was accused of pushing over an out-house. Ward-Whate's antics as the chief administrator brought rounds of applause from the audience. L.A.C. Yount gave a remarkable impersonation of President Roosevelt giving a speech and this act stood out as an exceptional one, more so, because L.A.C. Yount is an airman from North Carolina and has a strong Southern accent.

In third place was Sgt. McLuhan, a pianist of professional ability. Other contestants who gave the judges their difficult task were Private McDonald and Mike Bruce of the Canadian Scottish, with songs, recitations and banjo selections—also solos by L.A.C. Allison and cartoons by L.A.C. Rogers. Private Jimmy Ure assisted greatly in the program by accompanying the contestants at the piano.

A Sing-Song led by A.C. Bennett between acts gave the airmen an opportunity of "raising the roof."

At the conclusion of the program, Rev. Mr. Springborn presented suitable prizes to the winners. 4 (BR) is already planning to have more of these concerts in the near future.

"Let it rain
At Uc-lue-let,
We entertain,
It's fun—you bet!"

There has been an air of expectancy over No. 4 (BR) during the past few weeks that can be traced to the news, via "Bush Telegraph," that fifty "comely" (we have our own ideas) maidens, (who are we to judge), were expected to swell the ranks of employees at the Reduction Plant, that stately building of putrescent smells, which rise heavenwards across the bay.

Our correspondent informs us that the new arrivals had the ap-

pearance of blondes when he saw them during the hours of darkness, but has since mentioned that a glimpse by daylight has caused him to alter his opinion, tendering the excuse that everything was black that night, including the "BLONDES."

Even if we do fall for these goddesses of feminine pulchritude, (we nearly said "pilchard-tude"), and get to the "walking out" stage, it will necessitate considerable fortitude on our part, not to alter our wish that it was from a perfumery, and not from a cannery, that our dates came from.

— X —

They're All Alike

The time when we could go down town and order a fourpiece suit, according to our individual tastes, seems far, far away. But the first year of war, a year of regimentation in clothing and appointments, has done little to dim that memory, if the prevailing taste in literature at this west coast station is any criterion.

Recently four catalogues of a prominent men's furnishings wholesale concern came through the mail. Since that time, the centre of attraction for a group of men in the canteen or the barracks is invariably one of the catalogues. Some stare at the pictures of "Esquishly-garbed" men almost sadly as if they doubted such people existed. Others start arguments over the virtues of "double-breasted" and "single-breasted" garments, of tweeds and serge, of "wide-bottoms" or "high waisted" trousers. The arguments rage until the canteen or barrack corporal breaks them up by turning out the lights. The subject seems always fresh and it takes more than a war to take a man's mind off his clothes.

— X —

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We Salute and Order

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Because we know
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BLENDED
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IN SCOTLAND

BORN 1820—
Still Going Strong



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Tale of a Blackburn Shark

It was only an old Blackburn Shark
That flew the wintry sky;
The pilot had taken an A.G.
To bear him company.

Red were his eyes as the crimson
rose,

His nose like the dawn of day;
His feet were cold as the mess
room stove

As they ploughed their chilly way.

The skipper he sat in the pilot's
seat

His heart was in his mouth,
As he watched how the veering
wind did blow

The clouds now west, now south.

Then up spake the little A.G. bold,
With a gesture of his hand,
"I'm hanged if I know where the
doose we are

So hurry up and land."

Last week the sky was full of
planes,

To-day no planes we see
But the pilot spat on his aneroid,
And a scornful laugh laughed he.

Higher and higher he climbed his
bus,

And looked for his escort bold,
But they were down in the mess
room hot

(If you wish the truth to be told).

Down came the storm and smote
amain

The Blackburn shark in her
strength

She shuddered and stalled, like a
frightened steed

Then dropped a cable's length.

"Lie down, lie down my little A.G.,
And do not tremble so;

For I can weather the roughest
gale

Pacific storms can blow."

"Oh, Captain, I hear a pop-pop-pop,
Oh, say what may it be?"

"It's a blinkin' Jap on my blinkin'
tail."

And he turned around to see.

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"Oh Captain I see two big oranges
Oh, say what may it be?"
"Grab hold of the Lewis and shoot
you fool
And don't stand talking to me."

"Oh, Captain I don't understand
the gun,
Oh, say what shall I do?"
But the Captain's words were
wafted back
And broke the prop in two.

Then down through the fleecy
clouds below
The Blackburn drifted past;
The A.G. thought of his future
And the pilot though of his past.

And ever the fitful gusts between
A sound—what can it be?
'Twas Japs paying their last re-
spects
To the wreck of the Blackburn
Shark.

The Station was right beneath her
bows,
She drifted a dreary wreck,
And the pilot swore if he did get
down
He'd break the A.G.'s neck.

She struck where the laundry's
waving grass
Looked soft as a downy bed;
But a couple of cows got in her
way,
So she quietly stood on her head.
Full twenty yards across the

Success to the
WESTERN AIR COMMAND
REVIEW

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ESTABLISHED 1867

Our very best wishes to the Boys
of the Air Force, and their fam-
ilies and friends, for a Merry
Christmas and Successful New
Year.

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WHOLESALE

Established in 1858

New Address 1211 Quadra St.
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ground,
The luckless pair were cast,
"I think I'll go" said the A.G.
"The danger is not past."

At the break of day the stumpy
field

He still was running ground;
Whilst close behind the pilot came
Forever gaining ground.

The oil was frozen on his face,
His mouth was full of sand,
But nearer came the avenger grim
With the joy stick in his hand.

Such was the wreck of the poor
old Shark

In the land of rain and mud,
Lord save us all from such an A.G.
And make the weather dud.

NOTE—Any relation to this and
the real thing is purely coinci-
dental.

By L. A. C. Smith, J.A.

— × —

Emancipation

That was the word that rang
through the world in the mid-
nineteenth century when the
British Empire abolished slavery.
It re-echoed again in this western-
Canadian outpost of the British
Empire from the lowliest AC2 all
the way up to the Commanding
Officer when it was announced the
Royal Canadian Air Force would
re-adopt the old-style "two-beat"
rifle timing.

Already there seems to be a
general improvement in the de-
portment of drill squads and flights
on parade. The snap and preci-
sion of the speedier arms drill is
in sharp contrast with the labori-
ous "Hep-one-two-three-hep" of
the former drill. It has certainly
brightened the job of more than
one disciplinarian in the Service.
—A.G.C.

— × —

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It Might Work

A well-known army strategist, approached by our correspondent in an effort to obtain information how he could enjoy his lunch in peace at social functions, in view of the battery of conversation usually carried on by the fairer sex, replied: "It is perfectly simple if the following rules are observed—I will illustrate."

1. The lady on your right, seeing that you are dining peacefully, immediately feels very sorry, and mis-interpreting your peace for loneliness, starts to converse. The male immediately should say: "Madam, are you married?" When the lady answers in the affirmative, you next say: "Have you any children?" Should the answer be "Yes, a boy and a girl." Your reply is, "How nice, are they your husband's?"

THE RESULT: The right flank is disorganized, and offers no further resistance.

2. After a few minutes the lady on my left, observing that no one is conversing with me, gushes forth, with a flood of frivolous conversation. I immediately start an offensive.

"Madam, are you married?" She replies, "Yes." I follow up. "Have

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you any children?" She replies "No." I counter by saying: "How do you manage it?"

RESULT: No opposition from the left flank.

The lady opposite me, a sweet young thing, intent upon spoiling my lunch, starts a childish conversation, I immediately say, "Are you married?" The answer, already anticipated, is "No." In an absent-minded voice I say. "Have you any children?"

RESULT: The centre is silenced. The above rules can be generalized to give greater flexibility.

— X —

The Xmas spirit has made its appearance on the horizon at this far flung base of the British Empire, on the rain swept and bleak shores of the West Coast; and if our Xmas committee carries out its suggestions, the sun should be shining at Ucluelet Xmas morning, even if it's liquid sunshine, and we don't mean rain.

— X —

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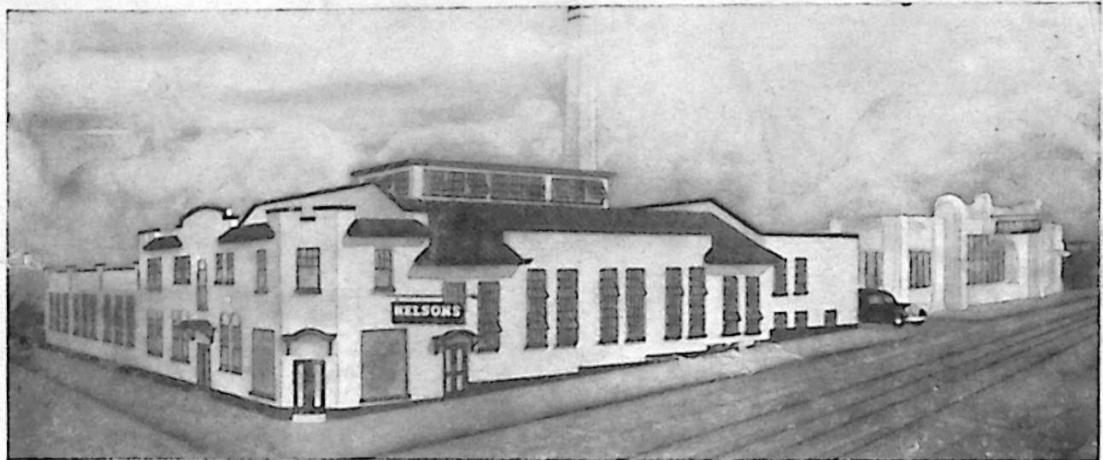


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