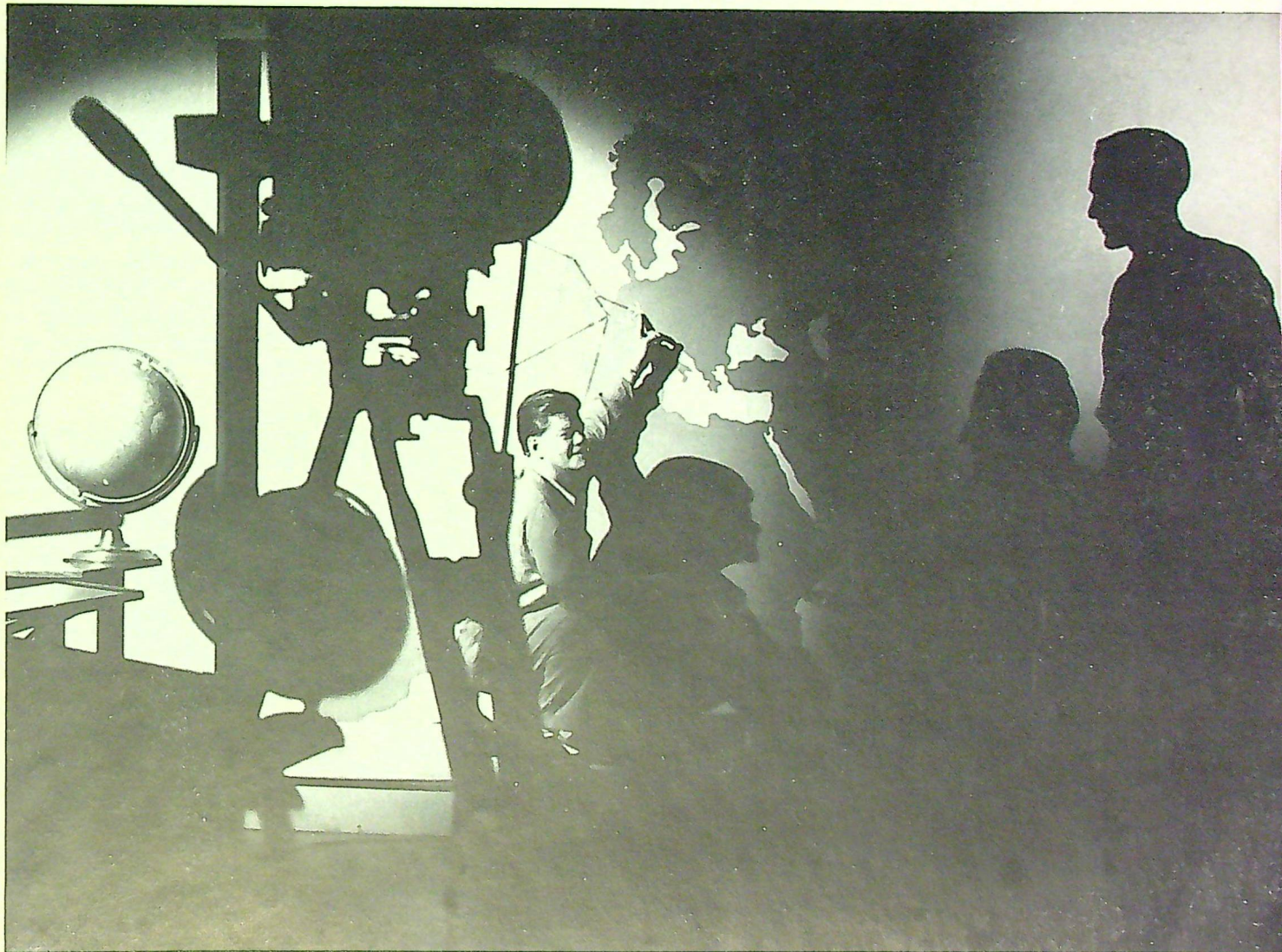


# *The* **CROWNDDEL**

Vol. 7, No. 10  
NOVEMBER 1955



**ROYAL CANADIAN AIR FORCE**



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 Royal Canadian Air Force

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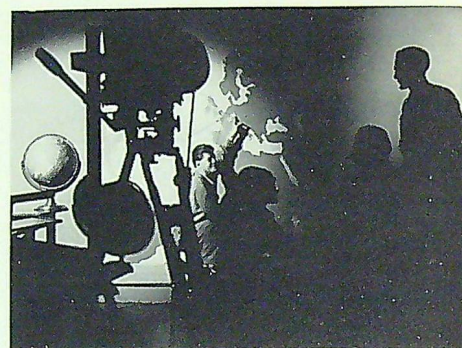
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**This Month's Cover**



Floodlights silhouette Flying Officer De Quoy and another member of the cast of "Air Crew", as Mr. D. Bradley, of the National Film Board, indicates R.C.A.F.'s European bases on map. (See story of the film on page 11.)

**EDITORIAL OFFICES:**  
**R.C.A.F., Victoria Island,**  
**Ottawa, Ont.**

# SGT. SHATTERPROOF IS DIVERTED

IT WAS ten o'clock of an October morning. At her desk in the adjoining office, Hildegard sat typing. The rhythm of the keys was desultory; the dictaphone's receiving-apparatus hung dejectedly from her ears. Her heart was not in her work. Nor, for that matter, was mine.

The reasons for our respective moods, however, differed. Whereas Hildegard's soul had been darkened by the failure of Elizabeth Pondenstein's "Skeletone" to lighten her body of even one of its two hundred odd pounds, mine was a prey to global forebodings. I had been rash enough to tune in, on the previous evening, to the pontifings of Pulsifer Proop, the well-known news analyst and commentator; and the recollection of his words, coupled with the steady beat of rain against the office windows and the lingering smell of sulphur from the nearby paper-mills, had plunged the editorial spirit into something of an abyss. Oblivious of the manuscripts awaiting perusal, I brooded over a cup of lukewarm tea.

"'Roundel' ahoy! May I come aboard, Sir?"

Startled out of my gloom, I looked up. In the doorway stood Sgt. Shatterproof, gazing at me with an expression which, though new in him, was nevertheless vaguely familiar. I considered him curiously — until suddenly it dawned on me. The old wardog, whom I had not seen since his return from the Navy/Air Force anti-submarine exercise off Bermuda, was fixing me with that keen and crinkly-eyed glance popularly attributed to seafaring men.

"Hello, Sergeant," I greeted him, without any enthusiasm. "Come in."

He advanced with a slightly rolling gait and lowered himself into the indicated chair. This done, he laid his Q.R.(Air) on a corner of the desk and proceeded to relight his pipe, cupping his

hands about the match to shield its flame from an imaginary force-10 gale. When the smoke-clouds had achieved the desired density:

"We appear, Sir," he said, "to lack zest this morning. We have, if I may say so, a somewhat keel-hauled air about us. In brief, the heart of oak seems heavy with the barnacle of despair."

Nauseated, I listened.

"What we need, Sir," he proceeded judiciously, "is a change of scene. We need a following sea and the trade-winds snoring snugly in our fore-topsails. We need —"

"Avast there, Shatterproof!" I lifted a hand. "We need nothing of the-sort. What we need is a hundred-and-eighty-degree vertical turn back into the English language."



He gave a gracious nod. "As you will, Sir. I had momentarily forgotten that we are not all equally at home upon the decks of Her Majesty's iron-clads."

I let that pass, and went straight to the subject uppermost in my mind.

"Tell me, Shatterproof — have you ever heard Pulsifer Droop on the air?"

"Oddly enough, Sir, I was enjoying his performance only last night."

"His performance? You mean his talk on the future of the Commonwealth?"

"Yes, Sir. I was highly diverted by it."

I stared at him.

"You were *diverted*? My dear Shatterproof, he was practically forecasting our complete disintegration within the next ten years!"

"I know, Sir. One of the finest bits of comedy he's ever put on. For pure dead-pan humour, Droop's got them all beaten."

Here he slapped a monolithic thigh with his hand and began to shake like a volcano warming up to erupt. I recognized the symptoms: he was laughing. Patiently I waited for the rumblings to subside.

"Are you telling me," I went on at last, "that you seriously believe our news analysts are merely trying to be funny?"

"Now, Sir, what are you —"

He stopped, peered into my face with a sinister sort of interest. Then, in a voice full of concern, he said:

"We must not permit our editorial responsibilities to overtax our minds, Sir. We owe it to ourselves to relax now and then. The Y.M.C.A. runs a lunch-hour P.T. course for business-men. I have heard it highly spoken on in the more pot-bellied circles. Perhaps —"

"Shatterproof", I broke in firmly, "I am not overtaxed and I do not possess a pot-belly. I am

simply asking if you really think that our leading commentators regard themselves as comedians."

Still eyeing me with the same solicitous expression, he said:

"How else would you have them regard themselves, Sir? Surely you would not expect Mr. Droop to be pleased if his hearers took him seriously? What would happen to his Hooper rating? After all, our humorists must live."

I sat back, baffled. Could it be that the old gladiator was right? Could it be that I had Droop and his colleagues all wrong? Maybe — but no, it was too absurd! I tried again.

"Now look, Shatterproof. Let me get this straight. You're saying that, when Pulsifer Droop talks about the possible dissolution of the Commonwealth, all he's really doing is cracking a rather salty jest?"

"Precisely, Sir. He is a man of infinite mirth."

"Hm! He certainly doesn't sound like it."

"That, Sir, is the art of the good commentator. It confuses any Foreign Power that may be listening in." Here Shatterproof smiled encouragingly, as at a backward child who at last seems to be making progress.

More befogged than ever, I tried to retrace the thread of our conversation; but before I had even got as far as the last *non sequitur*, he was speaking again:

"Possibly, Sir, if you had remembered your history, you would not have forgotten your sense of proportion. Let us glance briefly at the background of the Commonwealth."

He tapped out his pipe into my ash-tray and groped in his pocket for his tobacco-pouch. But I had had enough. Hastily I cast about for some means of escape.

"Hold it, Shatterproof!" I cried. "I have a better idea . . ."

The outcome of that idea will be found in this month's "What's the Score?"



# Memoirs of a Canadian in the R.A.F.

## PART NINE

By Wing Commander A. L. Bocking, D.F.C.

*(Part Eight of Wing Cdr. Bocking's narrative brought us to November 1940, when No. 30 Squadron arrived at Eleusis, near Athens, at the beginning of the campaign in Greece.—EDITOR.)*

EVENTS moved rapidly in Greece during that fateful winter of 1940. At three o'clock on the morning of October 28th, President Metaxas of Greece had been handed an Italian ultimatum. It expired at six a.m. Metaxas, forcibly and with no equivocation, made known his decision. Greece would resist to the last. Just before dawn, Count Ciano's so-called "Wolves of Tuscany" crossed the frontier, swarmed into Greece, and were on the road to Athens.

Ciano's promise that this would be an easy victory was quietly given the lie by the hastily mobilized but incomparably gallant Greek soldiers. Spear-headed by the famous Evzones of the King's bodyguard, the Greek army stood firm, and the fighting was as bitter as the winds that ripped across the snow-clad Pindus mountains.

On the political side, the President was quick to call on the British minister in Athens, Sir Michael Palaret, and ask for British assistance. Britain, despite the desperate need in the Western Desert, immediately diverted R.A.F. squadrons in fulfillment of her mutual assistance pledge.

\* \* \*

No. 30, as I have already said, was the first of these squadrons to arrive in Greece. We were ill-equipped to cope with the Balkan winter. Having flown for many years in the sunny skies of Iraq and Egypt, the instrument-flying capabilities of the

pilots were in almost as bad a shape as the blind-flying instruments themselves. However, the presence of enemy fighters on a *Blenheim's* tail was a wonderful incentive to hurry into cloud and on to needle and ball. Improvisation was the order of the day. Artificial horizons (of the early type that couldn't be locked) had long since become unserviceable; but now that blind flying had become an important factor in life, pilots were quick to level their wings before entering cloud and then to draw a line with a grease-pencil across the glass at whatever unusual angle the artificial horizon assumed. This line then represented "straight and level" when the aircraft plunged into the dark snow-laden clouds.

Maps were issued (in Greek, and of questionable reliability), with the heights marked in metres instead of feet. Bombs were provided by the Greeks. They were of local manufacture, square and yellow and reputedly filled with T.N.T., and they weighed approximately 250 lbs. Their trail angle was unknown, but, as it turned out, this didn't really matter, as any use of the bomb-sight over the target was purely cursory during those first few weeks. In the face of the weather and the heavy fighter opposition, we were lucky to get over the target and drop the bombs at all. The weather was, if anything, worse than the fighters. No meteorological facilities were available, and every flight was a gamble.



On one of the early raids on the Albanian port of Valona, Bob Davidson, myself, and Sergeant-Pilot Gallagher tried to get through the mountain passes. The weather was stickier than usual, and, since we were at 7,000 feet with mountains 9,000 feet high around us, we had to go up through cloud. We tried to get above it, but at 16,000 feet ice was forming on the wings and the controls began to get very heavy. The cockpit was full of snow, and it was difficult to see. Then glaze-ice — the most dangerous sort — began to form. Just as we were wondering if it would be necessary to jump, we found a hole in the clouds, through which Bob and I came down and steered a course for home.

The third aircraft was not so fortunate. Gallagher had reached 20,000 feet and was flying in the clear, just on top of a level cloud-layer. But at that altitude the machine was wallowing; now and then it sank back into the cloud, whereupon ice immediately formed. Suddenly, probably on account of carburettor icing, one engine failed. The *Blenheim* immediately went into a spin. Gallagher ordered the crew to jump, and then it was discovered that the observer's parachute pack had been thrown down the fuselage and out of reach. The pilot and air gunner stayed with the observer. Still spinning, the aircraft came down through cloud into clear air at 7,000 feet, and they found themselves in a narrow valley with mountains rising sheer on either side of them. Gallagher brought the aircraft out of the spin, only to find that both engines had stopped. His luck held, however. A small field, the only one for miles around, appeared dead ahead; and, with a small prayer of thanks, Gallagher slid the *Blenheim* in on its belly.

This makes an exciting story only because the crew returned alive. The circumstances were not unusual, but in most cases the aircraft slammed into some remote peak and was simply marked off as "failed to return".

No. 30 Squadron's first casualty came on the first raid, when the C.O.'s air gunner was killed — ironically enough, by the only bullet to hit the aircraft. It was also the first casualty of the B.A.F.G. (British Air Force in Greece). The

young airman was buried in Athens, his funeral being attended by a representative of the King and by the President in person. One of the Greek newspapers wrote: "The coffin was covered with two crossed flags — the flags of Britain and Greece. The dead, a young English airman, the first to be killed on Greek soil, came down out of the blue sky, wounded while chasing the assassin of Greek women and children. He was the first British eagle, his wings broken, to fall on the sacred soil of Attica — the first hero of the new generation of philhellenes of 1940". He was not to be the last.

\* \* \*

By mid-November, the "Wolves of Tuscany", their tails tucked between their legs, were in retreat on all fronts.

On the 15th of that month, No. 30 Squadron was briefed to carry out a special bombing assignment. The Greek Army had cut off an impressive number of Italian units and had them surrounded and isolated on a mountain peak in Northern Greece near the town of Konitsa. There was to be a set-piece charge by the Greek army. They were to attack from all sides at once and overwhelm the defenders. The signal for the advance was to be the exploding of 3,000 lbs. of bombs dropped on the summit (and, it was hoped, on the Italians' heads) by three *Blenheims*. The importance attached to this operation was enhanced by the presence with the Greek army of King George and Prince Paul of Greece. I was to lead the flight with Bob Davidson on my right and Sergeant-Pilot Childs on my left. The necessity that the bombing should occur on time, the distance to the target (about 250 miles), and the reported intense activity of enemy fighters (CR-42s, Macchi 200s, and G-50s), all combined to make it imperative that we have some kind of fighter protection if we were to live long enough to reach the target. Fighter escort was therefore provided — seven Polish high-wing monoplanes (PZL-24s) flown by Greek pilots.

As we approached the target (or what we fondly hoped was the target), we came under heavy attack by CR-42s. All seven of the escorting Greek fighters were shot down before we released

our bombs, and Sgt. Childs' *Blenheim* burst into flames and exploded just as we got the bombs away. Bob and I, in tight formation, headed for the deep valleys and set course for home. We stopped only momentarily at the airfield in order to get rid of the aircraft before we continued our headlong flight towards Zonar's Bar, where we talked over this frightening business in a peaceful hush broken only by the subdued tinkle of ice-cubes. After several drinks we decided that flying was strictly for the birds and that we would ask for a transfer to the H.Q. staff, where we could operate more comfortably in the Grande Bretagne Hotel, just a few steps from this our favourite bar. Nothing, of course, came of the project, laudable though it was. The next morning found us heading for Valona with enough square yellow bombs to give the Italians as sore heads as those we were nursing.

\* \* \*

It was about this time that Pilot-Officer Kirkman joined the squadron. "Kirk" was a character. Before the war he was an archaeologist and used to dig in Palestine. He was a scholarly gentleman, possessed of a grave dignity that well suited his greying hair — and he stuttered! How he had ever become a *Blenheim* air-gunner is one of the minor mysteries of the war.

The rear-gunner's compartment of a *Blenheim* was always cold, and in Greece, without proper winter flying-clothing, the air gunners suffered. Somewhere Kirk had picked up a civilian winter overcoat. Wearing this over his uniform and parachute harness, and with his seven-foot-long old-school scarf (vivid as only old-school scarves can be) wrapped twice around his neck and tucked into his belt, he presented a sight calculated to strike terror into even the most intrepid Italian birdman. The ground crew thought the world of Kirk. They would hurry him into the *Blenheim*, leaving his helmet and its radio earphones on the wing and (of course) out of his reach. Then they would stand back and wait in silent glee for Kirk to beam down from the back with an owlish stare and ask someone to "P-p-p-lease p-p-ass up my e-e-e-electric h-hat, l-l-like a g-g-g-good



Canadian P.O.W.s in camp near Sulmona. Back row (l. to r.): A. A. MacLeod (Montreal), R. E. Hamilton (Dawson Creek, B.C.), R. Frith (Toronto), R. C. Hughes (St. Mary's, Ont.), J. E. Harlton (Stony Beach, Sask.), R. W. McNichol (Grandview, Man.). Middle row (l. to r.): F. E. Heney (Ottawa), A. M. Spear (Bathurst, N.B.), D. MacAllan (St. Thomas, Ont.). Front row (l. to r.): R. H. Parmenter (Brantford, Ont.), L. Bartley, A. J. M. Richards (Enderby, B.C.).

f-f-fellow." It didn't take me long to notice that Kirk never deprived the ground crew of their little joke by remembering his helmet.

I took Kirk on his first operational raid. Being the only commissioned air gunner in the squadron, he felt badly about being also the least experienced. I explained to him that experience only came by going out and (even more important) coming back often enough, and, if he was to be *my* air gunner, I hoped that he would become very experienced indeed.

This first raid of Kirk's was a typical one. The target was the harbour at Valona. The weather was terrible, and the only way to get by the snow-covered 10,000-foot peaks that reached up into the heavy winter clouds was up the Argyrokastron Valley and directly over the Italian fighter base at Tepelene. If you made it past these obstacles you came into clear blue sky right above the anti-aircraft defences and smack into the enemy fighters who had long since learned that R.A.F. Headquarters in Athens always directed that time over the target would be 1300 hrs. It was rumoured that the Italian pilots had a pool on the number of minutes early or late that the three *Blenheims* would be as they crossed the last mountain.

On this occasion the enemy fighters were some miles to the north when we arrived in the clear

some five minutes' flying-time from the harbour. I spotted them instantly. Ignoring the familiar hollow feeling and the palms that became slippery on the control wheel despite the intense cold, I tried to evaluate whether we could reach the target, drop the bombs, and get headed for home before they caught us. I decided that the distance which still separated us gave us a chance of even getting away completely. As we started in, the flack reached up and pockmarked the sky around us, and I saw the fighters on the horizon wheel in our direction.

So far there had been no sign from Kirk in the back that he was awake. I was about to lift him out of his seat with a bellow over the radio, when suddenly sputtering noises in my earphones indicated that he had sighted the enemy. I cut short his excited "G-g-g-gunner to p-p-p-pilot —" by saying that I'd had them in sight for several minutes. A chastened silence ensued, which lasted until we had dropped our bombs and headed for home at maximum speed.

The enemy fighters slowly gained on us. The usual chatter between aircraft died away. If we were overtaken, our destruction would be more or less a foregone conclusion. While we flew on, pardonably somewhat tense, suddenly the radio silence was broken by a plaintive request: "I s-s-say, old b-b-boy, s-s-s-low up a b-bit! I c-c-can't reach the b-b-b-bastards." Needless to say, Kirk's request went unheeded.

\* \* \*

There were many Canadians in Greece in that winter of 1940. Besides Bob Davidson, Harry Card, Bud Richardson, and myself in No. 30 Squadron, there were Jerry Harrison\* and Vern Woodward\* in No. 33 Squadron, "L.G." Schwab\* and Len Bartley† in No. 112, and many others. With the exception of Harry Card, who was killed over Valona, all the above-mentioned survived the war — some of them, after incredible adventures.

Tales of heroism and self-sacrifice were commonplace in the desperate fighting during the retreat

from Greece to Crete and the subsequent subjugation of that island by the Nazi paratroopers. Perhaps the outstanding trait of the Commonwealth fighting man evidenced during that grim period was his determination to avoid capture at all costs, while at the same time despatching as many as possible of the Nazi supermen to whatever Valhalla rewards gallant but misguided warriors. If he failed to avoid capture, of course, his aim immediately became escape. The most unusual story of capture and escape of which I have first-hand knowledge is that of Flt-Lt. Len Bartley, who like myself, was a Canadian in the R.A.F.

The story of his adventures would fill a sizable volume. Here, however, I lack the space to do more than touch upon the highlights as I gathered them from his fellow officers long ago and, more recently and after some persuasion, from Len himself as we sat over a glass of ale in front of the open fire in the living-room of his house on the outskirts of Ottawa. Len hasn't changed much since the day in 1938 when he arrived at No. 4 F.T.S., Abu Suweir, as an Acting Pilot Officer. In fact, the only really noticeable changes are the addition of a little grey in his hair and his acquisition of an attractive wife and children.

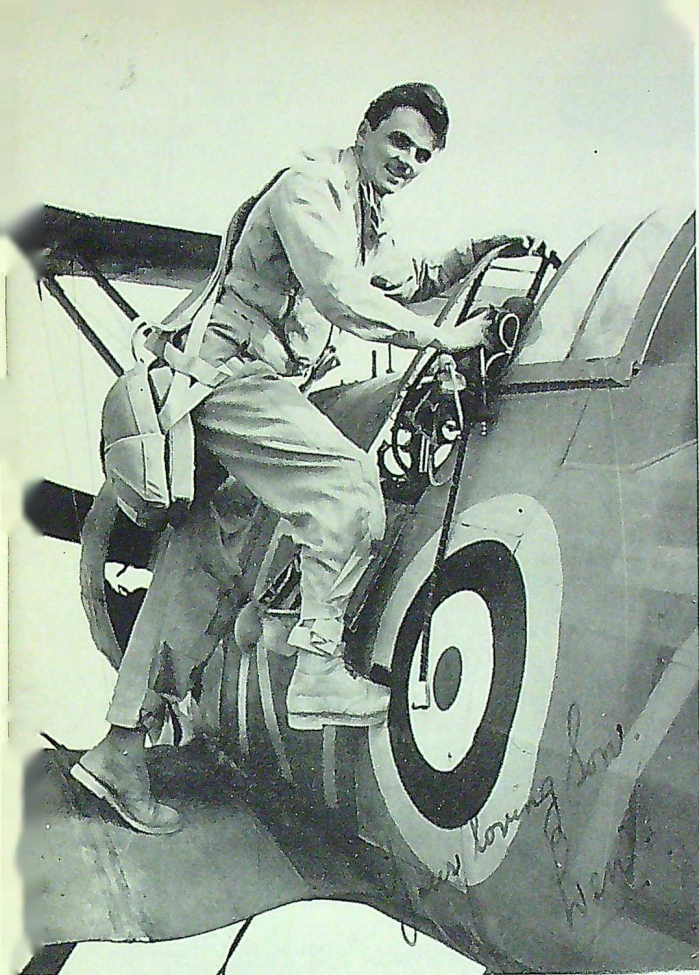
\* \* \*

"It was January", he said, "when 112 Squadron left Egypt for Greece. We left Sidi Hanish in the Western Desert, with twelve Mk.II *Gladiators*. Our first job in Greece was the local fighter defence of Athens. After the Western Desert this was an assignment we could really enjoy. Athens was a wide-open city. A pound note bought 550 drachmas and champagne was 50 drachmas a bottle — and say, how about that Bella Smira and her 'Dance of Fire' at the Argentina nightclub!"

We caught a quickening of interest from our respective wives, and he quickly changed the subject. When the glasses were replenished, he started again, on a more diplomatic note: "Yes, sir, it was tough. We left Athens in February and went to a forward airfield deep in the Pindus Mountains near the town of Yannina, fifty miles

\*Now Wing Commanders, R.A.F.

†L. Bartley, Spartan Air Services, Ottawa.



Flt. Lt. Len Bartley, 26 Nov. 1940.

south of the Albanian border. Here we could operate against Musso's forward fighter-strips and also provide fighter escort for the *Blenheims*.

"We operated from Yannina until mid-April. The war had taken a turn for the worse with the arrival of the Germans. We were pretty badly shot up, and when it became obvious that we'd have to evacuate to Crete, we tossed coins to see who'd fly the five beat-up aircraft we still had left. I lost — along with several other pilots and some of the ground crew. I hitch-hiked my way to Athens — which by now, incidentally, was a city of somewhat more sober mien than it had been — to see if by any chance I could get out of Greece in a *Blenheim*. All that night we sat in the blacked-out mess at Eleusis, carefully disposing of the bar stock, and when dawn arrived, so did the Me.109s and 110s. After their first attack, six of us crawled aboard an aged *Blenheim* that had miraculously

escaped serious damage. We were taxiing out at high speed when — wham! — we heard a heart-breaking crack. The tail had fallen into a hole in the grass field and the stern-post had broken. So there we were, a sitting duck right in the middle of the airfield.

"I thought I'd had it that time for sure. But just then another *Blenheim* — the last one on the field — taxied out for take-off. When he left we'd be on our own. But I was determined to get out at any cost. I charged across the airfield, and, just as the pilot was opening up, I grabbed his port aileron and waggled it frantically. The engines closed down momentarily and a head poked out of the pilot's compartment. I recognized Bob Davidson's bushy moustache and beaming smile. He didn't hesitate a moment. 'Get your men aboard' he yelled. We needed no second invitation. As six more chaps — in addition to the seven already there before us — climbed in an aircraft built to hold a crew of three, Bob looked a little worried for a moment. Then he said, 'What the hell, let's go! Either we'll all make it or we all won't!' I don't like to dwell on that take-off. Suffice it to say that at last we brushed through the olive groves at the end of the airfield and were on our way to Crete. Today twelve people owe their lives to Bob's superb flying. Our overloaded aircraft broke its back as it landed on the short runway at Crete, but we were down. I left 30 Squadron's airfield and, together with my boys, rejoined 112 Squadron at Heraklion.

"We operated from Heraklion for about three weeks. Then disaster struck in the shape of the German *Falschirmjäger* tumbling from the sky in unbelievable numbers out of the 3-engined Ju. 52s which came roaring in at 300 feet, with Me.109s and 110s swarming around them in an angry protective screen. We had no aircraft left, so we grabbed rifles and bayonets and joined the army. Many men died that day, but somehow I survived and found myself in sole command of several airmen. We determined to break through the enemy forces, if possible, and make our way to the southern beaches, where — rumour had it — British and Commonwealth forces were still holding out and some evacuation was taking place.



We proceeded with the greatest caution, as local villagers told us that the *Tedeski* (German soldier) was not taking prisoners, and grim evidence along the way gave substance to their statements. Very much on our own, we went on into the hills. The natives were friendly but scared, and news was scarce. After many miles of climbing and hiding we reached the southern beaches. We were a sorry-looking crew, I can tell you. And we were really beat.

"We found ourselves in company with about five hundred British and Australian Army types. They were in no better condition than we, having walked the forty hilly miles from the northern airfields. You've got to remember, too, that these were men who had evacuated Greece the month before and had been defending their area against several thousand parachutists for the previous six days. They were in fair shape physically, but two evacuations in a month had created a fairly wild state of mind among them. Though their attitude of waiting for someone to do something was quite natural in the circumstances, it presaged eventual capture, and this we were determined to avoid.

"Further east along the beach we came upon a small group of soldiers, led by a capable-looking officer of about six-foot-six. He said he was Captain Fitzharding. He and his men were trying to raise a motor landing-craft that had been sunk in shallow water. Our added assistance was welcomed, and by a prodigious joint effort we managed to raise the craft sufficiently to start bailing. Our little party included some Australian engineers and, by sheer good luck, a South African Air Force officer who had worked in the factory that had produced the engines with which the craft was equipped. After much tinkering, he declared that at least one of the two engines should be ready to go.

"We kept our fingers crossed as he attached a battery, salvaged from somewhere along the shore, and turned the motor over. Just at that crucial moment we came under heavy German fire, and two of our sergeants fell into the boat, badly wounded. Fitzharding and one other soldier returned the fire from the shelter of the boat, and the small enemy party retreated. By the time we'd

finished loading three drums of aviation petrol and some Jerry cans of fresh water, we had one engine operating.

"All this activity had attracted some interest from the various groups and stragglers that stumbled along the beach. As our party grew and help became more plentiful, we provisioned with several hundred gallons of water in case of engine failure. And finally, on June 2nd, 1941, at eight o'clock in the evening, the Padre came down to the boat and held a service. There was little doubt that the prayers were sincere and heartfelt. Our small bay was now completely surrounded by the enemy, and North Africa was 250 miles away across the dark waters. After placing the wounded aboard, we pushed off into the darkness across a heavy swell that added to our misery. Some of the sixty of us were wounded, some seasick, and all were frightened; but we were determined, if it was humanly possible, to avoid capture and to return eventually to our units."

\* \* \*

Here Len paused again to dispense a spot more hospitality. While he did so, I couldn't help looking around the firelit room and marvelling briefly to myself how naturally we take this stable life of ours for granted except in rare moments of retrospection. Presently refreshed, Len went on:

"We were painfully conscious of the danger of being strafed by enemy aircraft, and our eyes anxiously scanned the sky as the moon came up, full and bright. Little did we dream of the strange fate that was in store for some of us.

"Things were going well, and hour after hour we continued to make unspectacular but steady progress. Then suddenly the look-out, perched on the bow drop-ramp, shouted that there was a whale dead ahead. Our scepticism brought forth a profane invitation to come and have a look. It was then about 2 a.m., and the moon was still bright enough for us to make out the outlines — not of the whale, but of the submarine that had surfaced directly ahead and was riding the swells in unison with our own craft.

"A voice called out: 'Are you English?' With

immense relief, we answered that we 'bloody well were, old boy!' Alas, our relief was short-lived. A heavy machine-gun chattered and vicious red streaks of incendiary and tracer arched across our bows to back up the peremptory order to 'Heave to!' We turned hard to port and made an attempt to run for it, but a blinding flash and the crash of a large deck-gun changed our minds in a hurry. We heaved to as requested, and Captain Fitzharding went aboard the submarine to discuss the situation with its captain. As we drew alongside, a peculiar and not unfamiliar smell raised our hopes that it was an Italian, not a Nazi, submarine which we had encountered. And so it proved to be. Convinced by Fitzharding that most of our passengers were wounded troops, the Italian commander agreed to let them go if they would return to Crete and if the officers would come aboard his submarine as prisoners. He added that if any reluctance were shown, or if officers attempted to remain in the smaller boat, he would be forced to sink it. In the face of this ultimatum, we decided that for the good of the greater number we would comply.

"The vessels had now drifted about fifty feet apart, and the swells were running high; but, at the insistence of the submarine's crew, we jumped into the water one by one, and swam across the intervening distance. The South African Lieutenant, the chap who had fixed the engine for us on Crete, was drowned on the way. I must, in all fairness, add that one of the Italian submariners actually jumped in and tried, unsuccessfully, to save him — being rescued himself, indeed, only after some difficulty. As for our own craft, it resumed its painful way to North Africa, where it arrived at last without further incident.

"The submarine was the 'Ardua' out of Taranto. The captain was a fastidious and dapper little individual, smelling faintly of perfume. However, he was very correct in his treatment of his unexpected prisoners and sometimes seemed at a loss to know just how to treat us. He was especially puzzled by my status. He hadn't been briefed on the procedure if he should happen to capture an R.A.F. pilot — but then, of course, neither had I been briefed on how to behave if taken prisoner by

a submarine. We regarded each other a little suspiciously until we returned to Taranto some five days later. I might add, by the way, that although we were prisoners, we literally drove that submarine right out of Mare Nostrum. Having spent the previous weeks living like animals and sleeping whenever and wherever exhaustion overtook us, we were — to put it plainly — lousy. A submarine, its confined space now crowded by the addition of seven prisoners, offered unrivalled opportunity for this discomfort to distribute itself more evenly; and soon everyone was scratching. The sight of Dapper Dan the Skipper, bending down to peer through the periscope and scratching frantically under each arm for all the world like an orang-outang, is one that will live long in my memory.

"On arrival at Taranto, we experienced much kindness in the Italian Naval Hospital. But that was where the picnic ended. The next two and a half years were spent in a prison-camp near the town of Sulmona, in Central Italy. They were dull and deadly years, wasted from our lives. Although I watched every chance to escape, no opportunity presented itself until one day we heard that the Allies had landed and were fighting their way north. A note of urgency was added to escape-plans by the rumour that the Germans were going to move P.O.W.s — particularly air force prisoners — to camps in the Fatherland.

"There were those that urged caution and a wait-and-see policy, but the opportunity for which I had waited suddenly occurred in the new upset routine of the camp, and one night I broke out alone and headed south. For days I wandered through the hills, relying on friendly shepherds for food and avoiding the retreating Germans in a series of rather frightening escapes. I was passed from one underground group to another, until at last I reached the famous guerilla leader 'Popski' and his 'private army'. I operated with them on a bridge job one night, and a particularly close call, when I was wounded in the leg, brought back to me sharply my duty to return to the R.A.F. as quickly as possible. 'Popski' was most co-operative and provided a guide to take me south.

"When I reached the Allied lines, the first vehicle I saw was an R.A.F. lorry. I flagged the

driver down and asked him where he was going. Quite unbelievably he replied: '112 Squadron. Hop in.' And so, two and a half years later and many miles from my point of departure from it, I arrived back at my squadron mess. On the way to the mess tent I passed aircraft I had heard about but never seen — *Spitfires*, beautiful-looking machines, vastly different from the *Gladiators* of the Desert and Greek days.

"As I pushed open the flap of the tent I was greeted by yells of 'Outside, you! No Eyeteys in here!' from young pink-cheeked lads with shiny wings and smart clean uniforms that made me actually conscious of my old civilian overcoat and beaten-up peaked cap. I had some difficulty in establishing my identity. Not a single familiar face was left in the squadron. In desperation I kept repeating 'Look, fellows. I'm Flt. Lt. Len Bartley,

honest!' Suddenly I spied a familiar volume lying on a mess table — the squadron 'Line Book', which every desert squadron kept to register for posterity the more boastful statements made by pilots in an unguarded moment. 'Look', I said, 'you'll find my name appended to the very first entry in that book. It reads: *I'll never get in the line book, fellow. I never shoot a line!*' They checked the entry, and I was accepted. The night that followed was one to be nearly remembered!"

\* \* \*

On this note of pleasant reminiscence, Len sighed almost regretfully, and stretched out his feet to the fire. Then, turning to me, he asked:

"And what were you doing all this time, may I ask?"

"Well", I said, "that reminds me. I was commanding No. 11 Squadron . . ."

(To be continued)



## Pioneer in Repose

Accompanied by his partner in many a wild frontier foray, and accoutred with his coon-skin hat and *Bon Voyage* pin, little Daniel Fraser snatches forty winks aboard the boat-train on his way to the S.S. "Scythia", docked at Quebec City. From there he will sail to join his father, L.A.C. D. W. Fraser, in Europe. The photograph was taken by Cpl. D. Eagles, of Air Transport Command H.Q.

# "AIR CREW"

## THE STORY OF THE R.C.A.F.'s LATEST FILM

By Pilot Officer S. G. French

*(In May 1954 we published an article entitled "Operation Hollywood", which gave the story behind the making of the remarkable R.C.A.F. film, "Ground Crew". We now offer the story of its sequel, "Air Crew". As in the case of the earlier film, the actors who appear in "Air Crew" are all regular members of the Air Force. The film, which was written, directed, and produced by Mr. T. E. Farley, of the National Film Board, can be obtained on loan by responsible organizations from any R.C.A.F. recruiting unit.— EDITOR.)*

LAST spring, as the R.C.A.F.'s training-and-recruiting film programme swung into high gear, those officers and airmen who were on temporary duty beneath the National Film Board's arc lights and cameras began a hectic eight-week assignment that has brought them before Canadian audiences from coast to coast. "Air Crew" is the 47-minute story, in colour, of three young men from enlistment to wings and operations. Flying Officers Stan Hegstrom, André De Quoy, and Bob Mackenzie, leading players in "Air Crew", travelled six thousand miles, with stop-overs in Quebec, Ontario, Manitoba, Baden-Soellingen, and Paris.

It was, however, anything but a holiday. With a work schedule of up to fifteen hours a day, packing and moving had to be done on week-ends. Actors doubled as "grips" to shift equipment, and the "set" was wherever they could hang their hats. At MacDonald, Man., operations were rained out for two days. At Trenton, lightning for a storm sequence had to be manufactured by short-circuiting an arc light. But, whether they were sweltering under the heat of multiple arcs or airborne with the sky for their studio, they thrived on it.

\* \* \*

"Le Monde . . . Figaro . . . Paris Soir . . . Le Monde . . . un journal, monsieur?"

"Paris Soir, s'il vous plait."

"Merci, monsieur . . . merci, monsieur."

Three Canadian Flying Officers and a news-vendor serve, symbolically, to introduce the



*F-86s of the Overseas Ferry Unit get airborne for sequence shot at R.C.A.F. Station St. Hubert.*

National Film Board's documentary of the young men who fly in Canada's air defence. In the background, the Eiffel Tower points toward a formation of Canadian Sabres flying over Paris. Stan Hegstrom, lowers his "Paris Soir", gazes at the Sabres, as do André and Bob. The events that lead up to this moment in Paris constitute the story of "Air Crew".

From Nanaimo, Montreal, and Cape Breton, the three young men come, with numerous other air-crew aspirants, to the Personnel Selection Unit, London. They remain as civilians during the



*Flying Officer Bob Mackenzie, one of the film's three "stars".*



*Interested Parisians watch camera-man at work just off the Champs Elysées.*

selection period. If successful, they will be enrolled as Flight Cadets in the air-crew category for which they are best suited. The crowded weeks fly by. Then, one day:

"Mr. Hegstrom?"

"Here."

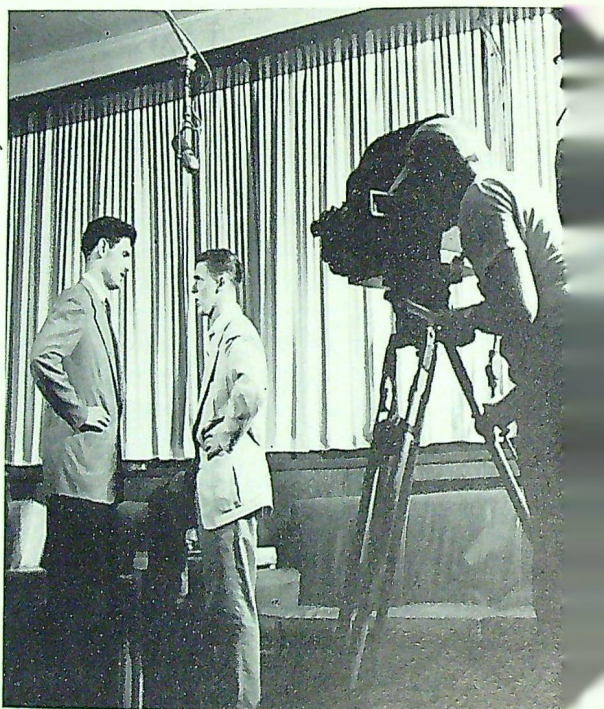
"Right in here, please."

Nervously, Stan enters the room where the final verdict is given. The officer talks while Hegstrom's mind, only half-attentive, races back over every test to which that he has been subjected during the past weeks. Then he hears: "Congratulations. You've been accepted."

We are also given a sympathetic and understanding glimpse of a candidate who, though well equipped for almost any profession he might elect to enter, is not quite suitable for a career as air crew.

The next step for the three central characters is Pre-Flight Officers' School . . .

"This is where you learn that leadership is more than just giving orders or taking them. It means learning to work together, exploring new fields such as organization, world affairs, and the qualities that make a leader. Nobody becomes an officer in a few short weeks in school. Here, we can only introduce you to Air Force life . . ."



*The film's "wise guy" (left: Flying Officer Phil Kennedy) argues with Flying Officer Meredith Green about relative merits of pilot's and observer's trades.*

When they have successfully completed their short but strenuous period of pre-flight training, we leave André and Bob temporarily, and follow Stan in his flying training. He does not fly immediately: first come preparatory weeks in ground school, during which he learns about the principles of flight and the aeroplane in which he is to receive his first instruction.

At last we see him climbing into the front cockpit of a Harvard. At this point the commentator breaks into a few lines of blank verse — an effective device used here perhaps for the first time in any documentary film.

*“There’s your aircraft, stub-wing’d, sturdy,  
Ready for the air at o-eight-hundred . . .  
Cuts through sky like a knife through water  
Look her over and climb aboard.”*

*“This is your basic Service trainer.  
Call her AT6 or Canadian Harvard,  
Taxi out to the take-off button,  
Lift her into the solid air.”*

Soon, the time to solo arrives. Watching thro’ the Flight-room windows, one of Stan’s fellow-pupils remarks: “I bet he’s lonesome!” Then, soon afterwards, we see all of the Flight Cadets of

*Airborne studio.*



*A Dakota used for a night-flying sequence was forced by hail to land at an American airfield during a flight from MacDonald, Man., to Rockcliffe.*

Course 55 gathered to celebrate in the Mess. They are singing under the badges of courses who graduated before.

*“Our Instructors said we’d never learn to fly,  
Our turns were bloody awful and our land-  
ings all too high,  
Tomorrow when we graduate we’ll wave  
them all good-bye,  
As we go flying on . . .*

*“Glory, glory, hallelujah!  
Glory, glory, hallelujah!  
Glory, glory, hallelujah!  
As we go flying on . . .*

*“Up at seven thousand feet with nothing on  
the clock,  
The carburettor’s icing and the engine  
starts to knock,  
The instructor says ‘Excuse me, son, I think  
I’d rather walk,’  
As you go flying on . . .”*

Tomorrow they will be Flying Officers on their way to a new day at Advanced Flying School.

\* \* \*

Meanwhile, André De Quoy’s big ambition is to be the best navigator in the R.C.A.F. He worked diligently right from the first class. “There was just one thing you could say about De Quoy: he was good, and he knew it.”

On that first navigational flight out of Winnipeg, most of the students were only too happy to be



Stan Hegstrom awaits decision of the Selection Officer, Flt. Lt. N. Miller, beneath the watchful eyes of Mr. Tom Farley and his technical adviser, Sqn. Ldr. Hugh Campbell.

flying with an experienced instructor. However, De Quoy just sailed along. He was, as the commentator observes: "The only man in the class who could keep an airplot and still find time to read letters from his girl." But André's cavalier attitude was short-lived. "Estimated time of arrival at Winnipeg — sixteen twenty-three. Turn over the runways, and there's the . . . uh — the **WRONG AIRPORT!**"

Day trips under the prairie sun, and cool night trips where André learns to navigate by the stars.

Filming the observers' graduation parade.



*"This is your office, Navigator!  
Study the line of your track-made-good,  
Sextant and airplot for your tools.  
Turn on the tide of the night's mercator.*

*"Arc through sky on a midnight highway,  
Star-fixed, firm on solid air.  
Under the stride of your wide dividers,  
Prairie and lakeland.*

*"You'll get there  
By sextant sight and radio compass,  
Slick as the tick and tock of time,  
And, Venus and Betelgeuse for your  
markers,  
Orbit over your aerodrome."*

Graduation. Music. Marie in his arms. "What's the point in being an observer if you can't take her out in the moonlight and show her the stars?"

\* \* \*

The film now turns back to Bob Mackenzie, the third of our trio. He walks into his new room at Winnipeg and is greeted by a character who sings in lilting tones:

"3-CDG. I'm Henry; that's my QSL."

"Bob Mackenzie, Glace Bay."

"Say, isn't this great? I hear they have a half-gallon transmitter here with a wide-spaced ten-over-twenty rotary beam."

Thirty-six men on the course, and Bob gets a radio ham for a room-mate!

At first, the course at the Radio School is confusing. Then, as Bob moves into practical work, he begins to see the importance of his job. After a while he even understands the radio ham — who, incidentally, eventually graduates only after he has somewhat painfully learned that professional ability is not the only quality required of a good officer.

When Bob steps up to get his wings on Graduation Parade he is truly inspired, as is the viewer. Behind the drums and ceremonial are the DF loops and the loran, the transmitters and receivers; men and equipment linking ground stations and 'planes from coast to coast.

\* \* \*

At Trenton, some time after our three heroes have graduated, we see several North Star crews being briefed.

"Somewhere in the North Bay area, jets from Number 402 Squadron will do a practice interception on your aircraft . . . These operational training flights are important."

At a North Bay aerodrome the fighter crews are going out to their aircraft (all-weather CF-100s), scrambling for a practice interception on North Stars. Stan goes through his tarmac check, while the observer goes over his equipment.

After the interception is over, the North Star carrying André and Bob runs into weather-trouble.

"Negative 502. Terminal weather for Churchill: precipitation ceiling one hundred feet and sky obscured; visibility zero in heavy rain. Wing 265 at forty knots, gusting to sixty . . . Navigator De Quoy was thinking he'd better get some bearings — or else."

As the lightning flashes at them, illuminating the sky brilliantly:

*"This is your problem, Sparks-in-Air,  
Where the radio highway dwindles down  
And the whispering signal disappears  
In the sullen, storm-black, cloud-blind sky.*

*"Match your wits with the thunder's rumble.  
Ride your luck through the lightning's  
glare.  
Reach for earth with a thread of sound  
Lost in the spaces, somewhere under . . .*

*"By DF loop and radio bearing  
Wireless pin-points out of the sky.  
Voices . . .  
signals . . .  
Your radio homing  
Will bring them back to the aerodrome."*

After this storm sequence, the film is almost finished. It only remains for the commentator to say:

"Three men, each with his own personality and ambitions, but all with something in common. Three men, or three thousand, the story remains



*At graduation dance, Flying Officer De Quoy steps out-side with film-fiancée Ruth Moss.*

the same. A story that goes on today and tomorrow, off the runways of a dozen countries. At Winnipeg, aircrews board their 'planes for a flight to the Maritimes. At North Bay, all-weather CF-100s get airborne in Canada's arctic defence. Over the Atlantic, an observer plots an astro-fix en route to the Azores. Montreal, Vancouver, Zweibrücken, Gros Tenquin . . . wherever there's a job to be done by the men and 'planes of the R.C.A.F."

\* \* \*

Tom Farley has written and produced a very fine film. Tenth and latest in a series of films\* designed to cover subjects ranging from jet-aircraft maintenance to the qualities of a leader, "Air Crew" is colourful, interesting, often humorous, and quite inspiring. The photography, done in 16 mm. coloured Kodachrome, is excellent. The shots accompanying the blank verse are exceptionally effective. The movie is mercifully free of the nemesis which so often plagues such projects, namely, that which Evelyn Waugh has labelled "the waving of flags".

Personnel of the R.C.A.F. can be justly proud of this production.

\*Supply Trade.  
Flying Instruction Technique.  
On-the-Job Training.  
Paying Compliments.  
Air Crew.

First Aid for Air Crew.  
Anoxia.  
Radio Compass  
Ground Crew.  
Air Force and Public.

# Automatics in Air Power

By Group Captain C. B. Limbrick,  
Director of Radio Warfare, Air Force Headquarters.

*(It is now generally accepted that a time is coming when a very large percentage of an air force's operations, both in actual combat and in logistical support, will be carried out by automatic methods. Group Capt. Limbrick's article therefore deals chiefly with the subject of processing automatically the vast amount of data vital to the fulfilment of an air force's operations.)*

WE HAVE now arrived at a point in the history of air power where all air force components must employ every ounce of inventiveness and energy to counteract the possession by any potential aggressor of nuclear weapons, nerve gas, guided missiles, and high-speed, high-altitude jet bombers. The percentage of "kill" in air defence during the Second World War is entirely inadequate today, and one of the methods we can use to improve the "kill" probability is the employment of automatics.

It is rather difficult to define exactly what is meant by automatics. Actually, there are very few examples of complete automaticity. The range is great, from partial to almost complete automatic operation. A poor example of automatics is the automatic pilot or the so-called automatic machine gun. On the other hand, a good example is the fully-active homing air-to-air guided missile; and a more prosaic one is the modern automatic domestic washer.

In May 1949 I wrote an article for the "Engineering Journal" in which I described electronics as the sensory system of air power. This definition is still valid. It is a fact that electronics provides great assistance to and extension of man's senses for use in the achievement of air power. At the same time, the definition requires some elaboration. Geldard writes: "However, as was repeatedly demonstrated in World War II, what radar and similar devices also do is to substitute one sensory task for another and, while effectively extending the range of exploration, also come to require

discriminations that tax the capabilities of sense organs."\* That is just about where we are right now. In other words, devices intended to assist our sensory powers will also, most likely, make greater demands on our senses. This is not good enough.

It is also interesting to quote what Stevens said: "This recent war was different from other wars in the peculiar respect that it was fought largely on margin — sensory margin — where the battle hangs on the power of the eyes, or the ears, to make a fine discrimination, to estimate a distance, to see or hear a signal which is just at the edge of the human capacity, and the paradox of it is that the faster the engineers and the inventors served up their 'automatic gadgets' to eliminate the human factor the tighter the squeeze became on the powers of the operator".† Again we see that, although we have done a great deal to assist the sensory powers, we have placed further demands upon the operator. Once again I say that this is not good enough. If it becomes possible, and if it is shown to be operationally profitable, we must get rid of the operator.

\* \* \*

What is the reason for the sudden discovery that what we have done is not good enough? There are two important reasons: the greatly increased speed at which air battles are fought, and the unqualified requirement for high "kill" in

\*"The Human Senses", page 11.  
†"American Scientist", Vol. 34, page 390.

air defence to prevent annihilation by nuclear bombing. There have been numerous theories to explain our shortcomings. One of them, already discussed in "The Roundel",\* holds that we are given to too complicated equipment in our aircraft and that we should make an attempt to simplify the situation. Air combat at high speeds and high altitudes, coupled with the high "kill" requirement, presents a complex problem and cannot be solved with simple devices and techniques which are dependent upon the vagaries of human operation.

I do not wish to appear dogmatic on the above subject. As a matter of fact, it is preferable to use human beings in cases where their reaction time, mental capacity, and physical strength are adequate for the task. By and large, humans are very satisfactory. A human possesses many thousands of miles of tubes; high-capacity pumps; hundreds of millions of nerve endings and receptors; complicated chemical processes and delicate balances of pressure, acidity and alkalinity; a fine servo system; a computer which can carry out both automatic and logical thinking; and a measure of self-repair. Moreover, it is usually easier to maintain and depend upon a normal human being than, for example, a modern all-weather fighter with its far less complicated equipment. There are, however, limiting factors in the capacity of the human being to operate with sufficient swiftness, accuracy, and capacity, to cope with the varied complex problems of air battles carried out at speeds exceeding 1000 m.p.h. and at altitudes ranging from 500 ft. to hundreds of miles, and attended by the complicated logistical problems of a modern air force. These problems can be met, in great part, by the use of automatics.

Modern air forces must perform a complex and completely integrated function consisting of combat and non-combat operations both in the air and on the ground. Areas in which automaticity, in various forms, will help are: administration, logistics, operational research, combat, intelligence, research and development, test and evaluation. If one wishes to be even more specific, automa-

ticity could improve the efficiency of work in any of the following fields of activity:

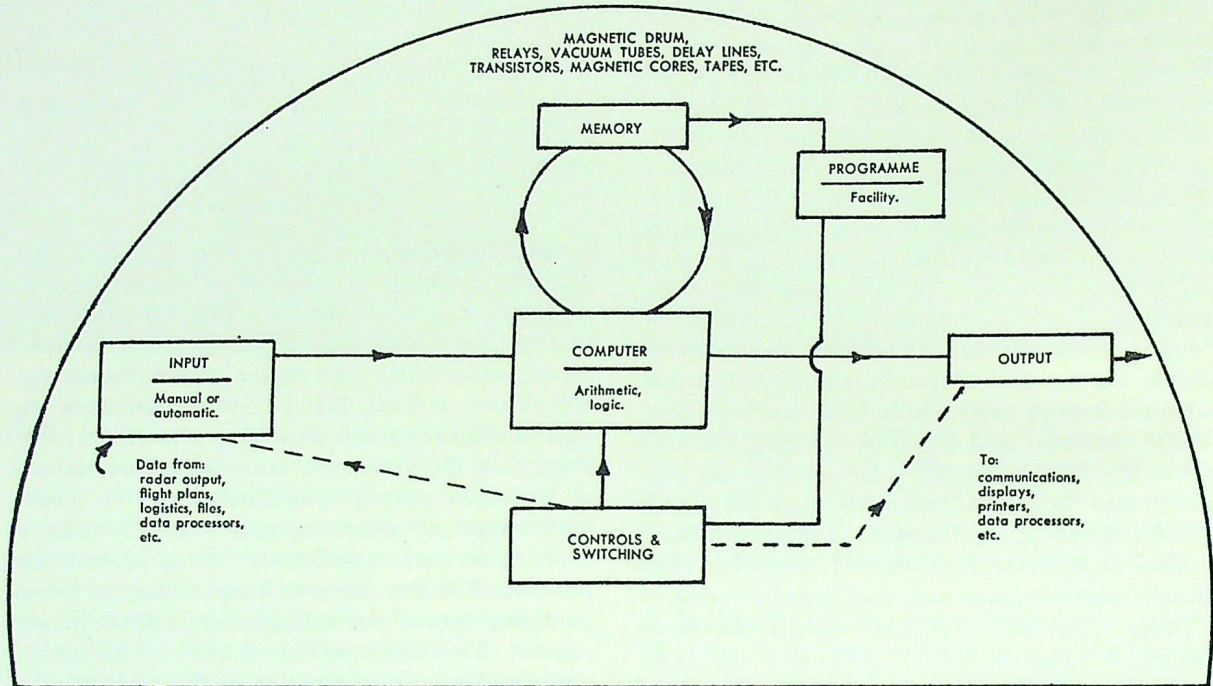
Payrolls.	Combat predictions and calculations.
Pensions.	Navigation for manned and unmanned aircraft.
Career analysis.	Stores inventories.
Maintenance schedules.	Operational techniques.
Accident and training analysis.	Weather forecasting.
Processing of air control and warning data.	Communications.

— and the above are merely a very few examples.

In the operation of an air force many decisions are made that are based on reason, emotion, and intuition. In actual fact, very few should be made on any other basis than reason, and automaticity will ensure, at least, that all combat decisions are logical. Machines can now be produced to compare, sort, store, extract, and match information at incredible speeds. Calculations can be made, with almost no errors, at speeds and in volume that could not possibly be accomplished by humans. Further, humans have a way of compounding errors — a failing that is fatal in air combat. This the machine cannot do. Industry, motivated by the desire for profit, has quickly discovered that automaticity is essential in this age of intense and efficient competition. For us in the Air Force, the competition is not for dollars, but for national survival. Although, however, even the application of purely industrial computers to the problems of air power would result in an improved effectiveness, we must develop special automatic equipment to deal with a number of special problems peculiar to our needs. (As a matter of fact, industrial computers and data-processing equipment can be employed quite satisfactorily in the non-combat operations of an air force.)

In the combat field, many improvements can be made. This is particularly true in the area of air defence. A lot has been done in the past ten to fifteen years, but more drastic improvements are now needed. A good example is radar. Radar has increased our range of "vision" some 20 to 40 times, and it enables us to see at night. Nevertheless, with all its advantages, it still demands highly skilled operators who must have the fortitude and ability to sit and stare at a bright display for long periods yet be always alert to spot one or more

\*"Is Fighter Design in a Rut?", by Wing Cdr. A. U. Houle, October 1952.



*Basic Elements and Data Flow-Chart for an Automatic Data System. (Note: the computer may be digital, analogue, combination, general purpose, special, electronic, mechanical, ground based, or airborne.)*

small points of intensity. Their failure to do so might, in this age of nuclear warfare, result in immense destruction. Thus, although we have extended our power to "see", we have at the same time imposed very great demands on our normal vision. How much better it would be if the tube was automatically scanned and the equipment modified so that the information was automatically detected and passed along to the user.

Another prime requisite for air power is the ground control of interceptors. This is a three-dimensional problem of kinematics and geometry. At speeds of, say, 1000 m.p.h. (roughly, 1500 ft. per sec.), many complex calculations must be made quite rapidly to provide information for the pilot to fly his aircraft effectively. These calculations may require examination of continuous variations in as many as twenty factors. Should the target

also be travelling at 1000 m.p.h., the closing speed may be as high as 2000 m.p.h. Obviously, a controller using manually operated devices cannot hope to direct the pilot with that accuracy which is essential for a successful interception. The modern automatic computer, fed automatically with data on the interceptor and the target, can provide flight information in both quantity and quality with adequate speed and practically no chance of significant error. While a normal human can, using pencil and paper, make approximately 20 simple additions per minute, a modern electronic computer can make 200,000 additions per second — and a forthcoming development will increase this capacity to 600,000 additions or subtractions per second and at the same time very considerably reduce the number of electronic tubes employed.



Another important requirement of air operations is memory, or storage of data. Humans have a remarkable memory: I do not believe, indeed, that any definite figure exists for the number of bits of information that a human can memorize (and, of course, the ability to remember varies enormously with the individual). Consider, for example, an attempt to memorize the correct order, by suit and number, of a pack of shuffled playing-cards. More difficult still would be the problem of stating, from memory, the 10th, 22nd, and 36th card. All such feats, though, are simple for an automatic data-processing machine.  $A + B - C$  can be computed and compared with  $D$  (which may be in storage), and thrown out if not in accordance with the programme; or the data can be sent elsewhere to provide information for action; or it can be stored for further use. This memory, or storage, can be made either long or short, and it can be displayed or called up either sequentially or at random, with tremendous speed and accuracy.

In passing, it is interesting to note that, as in most new developments having wide applications, a peculiar language is being developed in connection with automatics. Very soon Air Force personnel will need to know the meaning of *bit*, *register*,

*storage*, *memory*, *switching*, *magnetic drum*, *analogue*, *digital*, *binary*, *words*, *magnetic core*, etc. Some of these words may seem familiar, but they usually have a special connotation as applied to automatic data-processing equipment.

\* \* \*

I have said little about many other aspects of automaticity — e.g. guidance for missiles; automatic pilots that can take off, fly, and land; automatic navigation and landing devices for manned aircraft; automatic alarms of various types. Most of these developments analyse situations or data with a speed and accuracy that cannot be matched by humans, and make the answer available in almost any form desired, either visual or aural, or by causing another piece of equipment to carry out a new function.

In conclusion, automatics are not intended to replace humans where the latter can adequately perform the desired functions. Automatics should only be designed and employed to provide greater accuracy, speed, efficiency, and economy. If we seek to achieve such improvement by “automatic” thinking, and resort to automatics where manual operation *is* adequate, we may find that they become our masters instead of our invaluable and uncomplaining servants.

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## ERRATUM

EDITOR, “THE ROUNDLE”.

25 OCT 55

SUGGEST FLINGING CORDON OF SERVICE POLICE ROUND VICTORIA ISLAND IMMEDIATELY. PAGE 19 OF SEPTEMBER ISSUE STATES ONLY 80,000 LBS. EQUIPMENT TRANSPORTED TO ARCTIC IN 1955 SPRING RE-SUPPLY OPERATION. ENRAGED TAXPAYERS, ACCOMPANIED BY POSSE FROM A.T.C., NOW MARCHING ON OTTAWA TO FIND OUT WHAT HAS HAPPENED TO REMAINING 720,000 LBS.

SHATTERPROOF

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“The Roundel” apologizes both to the taxpayers and to Air Transport Command. “80,000” was of course a misprint for “800,000”. — EDITOR.)

# Feminine Gen

## TODAY'S AIRWOMEN

By Flight Lieutenant C. J. Foote

### Introduction

Now that women have been back in the R.C.A.F. for more than four years, it may be worth while to stop and have a look at what they have accomplished.

They have displayed outstanding capability in the performance of jobs that called for intelligence and stamina; they have been willing to accept the same regulations and discipline as the airmen; and, by their continued endeavours, they have shown

*L.A.W.s Barbara Luchanski (left) and Shirley Strandlund prepare for parade.*



themselves worthy of the same advancement and career opportunities. Today's airwomen are aware of the importance of the work they are doing in Canada's Air Force for the defence of our country. They have, in fact, more than justified the time and work that were devoted to their incorporation into the R.C.A.F.

The present rôle of airwomen in the R.C.A.F. is different in certain respects from that of the W.D.s of the Second World War. For one thing, they are no longer "W.D.s"; the Women's Division is gone. Nor are the enrolment qualifications the same. There is a "new look" about the Manning Depot and training programme which would surprise some of our former W.D.s — and even some of those who joined the Service in 1951 and 1952. Women are now selected and trained as in the following trades:

- Fighter Control Operators.
- Photographers.
- Teletype Operators.
- Safety Equipment and Supply Technicians.
- Medical and Dental Assistants.
- Stenographers.
- Clerk Typists.
- Meteorological Observers.
- Accounts Clerks.
- Air Force Policewomen.
- Recreation Specialists.

In addition, small numbers of airwomen are employed as Tailors, Laboratory Technicians, Communications Technicians, and Radiographers.

Women's place in the economy of the nation has widened extensively in the post-war years; and, when it was decided once more to employ women in the R.C.A.F., there was no longer any thought that they would form a separate division of the Air Force. Women are now accepted as an integral part of Canada's defence Forces — on an equal-pay, equal-rank, and equal-opportunity level with the men.



*A.W.1 Jean Hay launches a hydrogen-filled balloon preparatory to computing the direction and velocity of the upper winds.*

### The Recruit

The girl who wishes to join the R.C.A.F. today must possess certain basic qualifications. She must be between the ages of 18 and 29 (in the case of ex-Service personnel the age limit is extended to 39); she must have at least a Grade IX education; she must be able to meet the medical standards set by the Service; she must pass a classification test to determine her native intelligence and ability to learn; and she must have a high character and moral standards.

Her first step is a visit to one of the Recruiting Offices that are located in all the large centres across Canada. These are manned by R.C.A.F. officers (both men and women) whose job it is to ensure that all applicants are interviewed and tested in accordance with existing regulations and that they are thoroughly counselled on the various aspects of Service life. If our intending airwoman meets all the qualifications, she may then be enrolled.

In company with others (some of them no doubt from her own home-town or district), she reports to the Manning Depot at St. Jean, Quebec, where for eight weeks she undergoes basic training in the art of being an airwoman. Because the Manning Depot is now operated on a co-educational basis, the competition is extremely keen. Many lectures, of course (for example, those on health, deportment, conduct, hygiene, and appearance), are given separately to male and female students; and sympathetic guidance is always available from women officers and N.C.O.s and other staff members in matters of the girls' welfare and their future jobs in the R.C.A.F. Discipline is firm; but the supervision is kindly, and every effort is made to assist the airwoman in her adjustment to Service life.

### The Basic Course

At St. Jean, airwomen live together in barracks or dormitory-style dwellings, under conditions similar to those found at a boarding-school or university. At most of the stations on which they will eventually work, the accommodation is more spacious and home-like — single rooms in newly-built blocks, compact and attractive in design, with colourful decorations, ample cupboard-space, and comfortable furniture. Just as an airwoman is expected to keep herself well-groomed, neat and

*Recruits at St. Jean receive supplementary pay of ten dollars.*





clean, so is she responsible for the tidiness of her own room and personal belongings. The lessons in group living which she learns at St. Jean foster unselfish consideration for others.

During her stay at the Manning Depot, the airwoman is selected, by means of a series of tests and interviews, for her Air Force trade or job. She is also issued with all the items of clothing that she will require. Her basic training includes lectures and study in Air Force law, customs, history, and organization; health and hygiene; trade structure; and, of course, she learns to march and drill. Every recreational facility is available on the station to occupy her leisure hours — organized sports, social entertainments, library, hobby shop, theatre, and smartly appointed snack bar. She is encouraged to attend the church services of her particular faith, held in the station chapels, and the chaplains are always available for interviews. Medical and dental examinations are carried out; and, if the airwoman has any personal problems regarding her health, she can discuss them with the woman doctor and nursing sisters on the hospital staff.

#### **Trade Training**

At the end of the eight-week basic course, the first phase of her new life is completed, and the airwoman goes on to a training station such as Clinton, Aylmer, or Camp Borden, for trade instruction and practice. Here, with the help of the latest training aids and devices, she is given every opportunity to develop a high standard of proficiency in her trade. The length of the trade training she must undergo varies with each trade. On its completion, she is posted to any of the many stations on which airwomen serve.

Airwomen are at present serving at nearly every type of R.C.A.F. unit — flying training stations, supply depots, radar stations, and operational units. They are stationed in practically every area of Canada as well as at the overseas units of the Air Division — Marville and Gros Tenquin in France, Zweibrücken and Baden-Soellingen in Germany. Some remain at one unit for a considerable period, while others are moved

from unit to unit quite often during their Air Force careers, depending upon the requirements of the Service.

#### **Service Amenities**

The community aspect of present-day Air Force life is not without influence on the airwoman. Nowadays, married quarters for Servicemen and their families are very much a part of each station, and the accompanying conveniences include grocery stores, schools, barbers' shops, playgrounds, and other community services often administered by the airmen themselves. Although the airwomen have their own quarters and lounges, they are invited to take an active part in station and community affairs. Many stations have town councils, local improvement committees, women's auxiliaries, Cubs and Brownies, Scouts and Guides; and the airwomen play their part in such activities. Again, a number of airwomen have married airmen and remained in the Service to finish their terms. These new "Mr. and Mrs." groups have become part of the community in a very tangible way.

Holidays are generous. Every member of the R.C.A.F. is granted 30 days' leave, with pay, each year. If an airwoman is going home on leave (in Canada), she is entitled to railway transportation at reduced cost once a year. If space permits, many travel on Service aircraft, without cost. Since most R.C.A.F. units now operate on a five-day week, week-ends are free, and personnel are at liberty to leave the station and go where they please.

An airwoman's pay is the same as that of a single airman. As she rises in rank and job proficiency, she receives the same increases and benefits as the men. When she leaves the Service at the end of her term of duty, she is entitled to the benefits accruing under the Defence Services Pensions Act.

#### **Conclusion**

Many airwomen have now signed on for a further tour of duty. Others have decided to leave the Service when their term expires. Still others are planning to make the Service their life-time job,



*L.A.C. R. R. McEwan and L.A.W. E. F. Blackmore sign the register in the Protestant Chapel of No. 4 (F.) Wing.*

and expect to retire with a pension at the end of their years in uniform. A number of women officers in all branches, including those of Welfare, Messing, Nursing, and Administration, have been granted permanent commissions, and it is anticipated that more and more of the women officers will be given similar career opportunities.

\* \* \*

Thus, the pattern has been set for women in the R.C.A.F. Regular Force. Just as the pattern of air warfare changes with new developments, so will the pattern of airwomen's employment change. However, the foundation that has been laid is an enduring one — and one that will open up new avenues of service and achievement for Canadian women in the future.

## 100th Jump

The first para-rescue airman to make a hundred parachute jumps is Sgt. R. W. Crebo, of R.C.A.F. Station Edmonton. Three of the jumps were "operational", i.e. they were made when life was at stake. The balance were training and instructional jumps, or carried out in order to keep in practice.

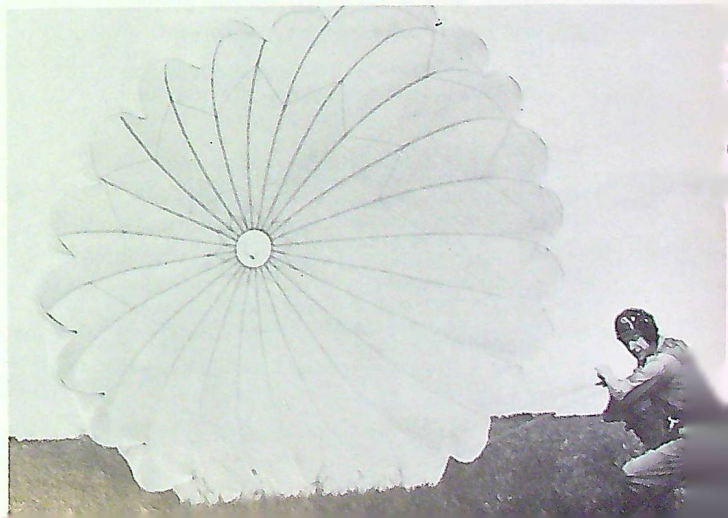
Sgt. Crebo's first operational jump took place in 1947, near Grande Prairie, Alberta, when he and Sgt. R. W. S. Trent rescued a trapper who had been missing in the dense bush for three days.

The second occurred 160 miles from Goose Bay, Labrador, in 1951. An R.C.A.F. training aircraft had crashed while on a routine training flight over inaccessible territory, and when the search aircraft located the wreckage it appeared that one of the crewmen had survived. Unfortunately, all four had perished before Sgt. Crebo reached the scene.

In 1952, Sgts. Crebo and Sproat jumped into a lake near Cold Lake, in northern Alberta, to ascertain the fate of a fisherman whose aircraft had crashed on landing on the water. This mission proved to be in vain, as the airman had drowned and his body was found in the wreckage.

His 99th jump was Sgt. Crebo's most thrilling. In a free-fall water-jump made from 3000 feet above Lake Wabamun, 60 miles west of Edmonton, his primary parachute did not open properly. (It was what is known as a "streamer", with the shroud lines entangled in his feet and holding him head downwards.) However, his emergency parachute functioned perfectly and averted what might have been a rather unhappy landing.

Sgt. Crebo joined the Air Force in 1941, and for his first six years worked quietly as an airframe technician in Canada and Alaska. Remustering in 1947 to the newly formed para-rescue trade, he was a graduate of the first post-war para-rescue course conducted at Edmonton and Jasper.



# WHAT'S THE SCORE?

*"I enclose herewith," writes the old wardog, "the first twenty of the several thousand questions which I have in mind as relating to the Commonwealth of Nations, its origins and its development. The remainder will follow in due course." Correct answers appear on page 48.—EDITOR.)*

1. At the time of Julius Caesar's first expedition to England in 55 B.C., the British Isles were inhabited by three races:
  - (a) The Angles, the Celts, and the Saxons.
  - (b) The Jutes, the Britons, and the Picts.
  - (c) The Britons, the Gaels, and the Picts.
  - (d) The Danes, the Iceni, and the Caledonians.
2. One of Caesar's reasons for invading Britain was to:
  - (a) Include Boadicea, Queen of the Iceni, in his Triumph after the Gallic Campaigns.
  - (b) Control an island which he regarded as a recruiting-ground for the insurgents of Gaul.
  - (c) Eliminate human sacrifice among the Druids.
  - (d) Subdue Cadwallader ap Shatterproof, whose leeks constituted rather stiff competition in the onion market of Spain (then a Roman colony).
3. Britain, though paying tribute to Rome, was not actually added to the Roman Empire until about 80 A.D. The last of the legions was recalled to Rome early in the fifth century in order to repel the barbarian invaders; and the history of the English people proper began about 449 A.D., with the invasions of the:
  - (a) Jutes, Angles, and Saxons.
  - (b) Vikings.
  - (c) Danes, Picts, and Wends.
  - (d) Anglo-Saxons and Cymri.
4. King Arthur was:
  - (a) A Saxon king chiefly famous for his careless cooking and the establishment of the British Navy.
  - (b) A semi-legendary Briton who defeated the West Saxons at Mons Badon and experienced some difficulty with his equally semi-legendary wife, Guinevere.
  - (c) The first king in England to be baptised.
  - (d) A character created by Lord Alfred Tennyson for poetic purposes.
5. Until about 825, England was divided into several kingdoms. In that year the country was more or less (though rather less than more) united under:
  - (a) Canute.
  - (b) Werewolf Shatterproof, husband of the celebrated Grimhilda Strong-Girdle.
  - (c) Harald Hairy-Breeches.
  - (d) Egbert of Wessex.
6. During the ninth and early tenth centuries, England suffered greatly from invasions by the Danes. The first Danish king (1016) was:
  - (a) Canute.
  - (b) Edward the Confessor.
  - (c) Harthacnut.
  - (d) Hengist the Horse.
7. The Saxon dynasty was restored in 1042 in the person of Edward the Confessor. Twenty-four years later, his son and heir, Harold, was defeated by the invading Duke William of Normandy at:
  - (a) Stamford Bridge.
  - (b) Senlac.
  - (c) Bayeux.
  - (d) Bunker's Hill.
8. The Normans were:
  - (a) Descendants of Norse rovers to whom Normandy had been given by the Frankish king in 912.
  - (b) A Gothic tribe who had been driven into N. France by Charlemagne.
  - (c) Franks who had fled to Neustria after their defeat by the Basques at Roncesvalles.
  - (d) Danes who had been driven out of England by King Alfred some 200 years earlier.
9. The chair in which British sovereigns have been crowned has been used since the time of Edward I (died 1307). Beneath it rests the



- Stone of Destiny (or Stone of Scone), on which the early Scottish kings were crowned.  
The stone:
- (a) Was originally part of the oven in which Plinlimmon Shatterproof the Druid baked the sacrificial muffins.
  - (b) Was stolen by (and recovered from) a group of Sinn Feiners during the Irish Rebellion.
  - (c) Reputedly once the pillow of Jacob, was brought to England by Edward I as a symbol of his conquest of Scotland.
  - (d) Was the object of Cromwell's displeasure when he dissolved the Long Parliament with the words "Remove that bauble."
10. The constitutional use of the name "Great Britain" dates from the year 1707, when the Act of Union:
- (a) Confirmed the legality of Edward I's conquest of Scotland.
  - (b) United the English and Scottish Parliaments and secured the established Church of Scotland and Scottish laws and judicial procedure.
  - (c) Recognized the divine right of the Protestant succession.
  - (d) Established English as the official language of England, Scotland, Ireland, and Wales.
11. The term "Commonwealth of Nations" refers to all those self-governing dominions, self-governing colonies, crown colonies, and protectorates which:
- (a) Are bound by agreement to assist the United Kingdom in time of war.
  - (b) Have reciprocal trade agreements with the U.K.
  - (c) Recognize the Union Flag as their national flag.
  - (d) Look to the Queen as their ultimate head.
12. The power of the British Parliament to legislate for the Dominions and to veto Dominion Acts was abolished by the:
- (a) Statute of Westminster (1931).
  - (b) Colonial Laws Validity Act (1865).
  - (c) British North America Act (1867).
  - (d) Colonial Development and Welfare Act (1940).
13. The Anglo-Israelite (or British-Israelite) Theory holds that:
- (a) The Semitic and Indo-European (Aryan) peoples are ethnically identical.
  - (b) The British and American people (white) are sprung from Israel's ten lost tribes.
  - (c) The symbolic figure of John Bull is derived from a caricature of Hereford the Wake.
  - (d) Christ visited England before beginning His Ministry.
14. The conception of John Bull arose:
- (a) As suggested in 13 (c) above.
  - (b) From the fact that the air of "God Save the Queen" has been attributed to a composer named John Bull (1563-1682).
  - (c) From a satire written against the Duke of Marlborough, in 1712, in which a certain John Bull is represented as having the Church of England for his mother.
  - (d) Because the bulldog is perhaps the oldest breed of dog known in the British Isles.
15. It is customary to give the title of Prince of Wales to the heir-apparent to the throne. The first English heir-apparent to hold the title was:
- (a) Prince Arthur, believed to have been murdered by King John in 1199.
  - (b) Edward the Black Prince (died 1372), son of Edward III.
  - (c) Ethelred the Unready.
  - (d) Edward, son of Edward I, after the defeat of the Welsh ruler, Llewellyn, in 1282.
16. The Commonwealth of Nations embraces:
- (a) One third of the earth's inhabitants.
  - (b) All the important religions except Islam.
  - (c) Every race except the Polynesian.
  - (d) One fifth of the earth's land area.
17. The phrase "perfidious England" was first used by:
- (a) Napoleon, in 1803.
  - (b) The French writer Bossuet (died 1704), in his First Sermon on the Circumcision.
  - (c) Suraj-ud-Dowlah (1756), when 23 of the 146 British prisoners confined overnight in the Black Hole of Calcutta came out alive in the morning.
  - (d) Hitler, on England's declaration of the Second World War.
18. The suggestion that the word "British" is derived from two Hebrew words meaning "Covenant People" was first put forward by:
- (a) The British-Israelites.
  - (b) F. M. Muller, the philologist.
  - (c) The Zionists.
  - (d) Alfred Rosenberg, the Nazi anti-Semitic writer.
19. "Come the world against her, England yet shall stand" was written by:
- (a) Ella Guest Shatterproof, the Sappho of Sturgeon Falls.
  - (b) Rudyard Kipling.
  - (c) Sir Winston Churchill.
  - (d) Algernon Charles Swinburne.
20. "Till the war drum throbbed no longer and the battle flags were furled In the Parliament of Man, the Federation of the World."  
The foregoing lines are taken from:
- (a) The Hymn of the United Nations.
  - (b) Tennyson's "Locksley Hall".
  - (c) The "Battle Hymn of the Republic", by Julia Ward Howe.
  - (d) "The Communist Manifesto" of 1848.

# Pin-Points in the Past

All three of this month's photographs were taken 26 years ago. The Moth aircraft, which was flying out of the R.C.A.F. base at Cormorant Lake, N. Manitoba, crashed while engaged in forestry patrol. Its pilot, Sgt. (now Sqn. Ldr.) W. T. F. Turgis, was unhurt. Standing by the wreckage is A.C.2 K. J. Regan, who is now a Wing Cdr. and the Chief of Quality Control for the Air Force. (Photograph lent by Wing Cdr. R. I. Thomas.)

The other two photographs are of Camp Borden. In one of them, Flt. Sgt. Holdsworth, (W.O.1, retired) is seated on a Hucks starter instructing L.A.C. W. Moore (Flying Officer, ret.) and L.A.C. M. W. Denny (released) in the operation of this singular mechanism. (A dramatic description of a Hucks in action was given by Wing Cdr. Boeking on page 26 of our issue for April 1955). The aircraft is an Atlas, and the airman in its cockpit is L.A.C. S. O. Partridge (Sqn. Ldr., A.F.C.) The second photograph shows the standard bed layout in the good old days. It was, apparently, taken after 1200 hours: before that hour, the towel on the bed and the clothing to the right of the locker would have spelled trouble for the owner. We are indebted for both the above photographs to W.O.1 C. W. Pye, of R.C.A.F. Station Moose Jaw.



# EAST GRINSTEAD

Many Canadians who crashed or were shot down in the last war will always remember with gratitude and affection the town of East Grinstead, in Sussex, England. It was there, in the Queen Victoria Hospital, that Sir Archibald McIndoe and his associates performed their miracles of plastic surgery. It was there, too, that a group of patients, in the summer of 1941, formed the famous Guinea Pig Club. In January 1949, the Club had 590 members, of whom 170 were Canadians. (See "The Guinea Pig Club", by Group Capt. A. Ross Tilley, O.B.E., M.D., in our issue for April 1949.)

Nor have the people of East Grinstead forgotten the Canadians. Each year, in September, a letter arrivés at Air Force Headquarters in Ottawa. It is always substantially the same — brief and to the point — but it speaks with an eloquence that no elaborate utterance could ever achieve. Here it is:

## EAST GRINSTEAD URBAN DISTRICT COUNCIL

Council Offices,  
East Court,  
East Grinstead,  
Sussex,  
England.

15th September, 1955.

The Chief of the Air Staff,  
Royal Canadian Air Force,  
Department of National Defence for Air,  
Ottawa,  
Canada.

Dear Sir,

This morning, as on previous anniversaries of the Battle of Britain, the Chairman of the East Grinstead Urban District Council placed a Laurel Wreath on the Tablet which was placed in the Parish Church, East Grinstead, in memory of the members of the Royal Canadian Air Force who lost their lives during the Battle of Britain.

Yours faithfully,  
(L. R. Bennett)  
Clerk of the Council

### IN THE WELL-PLANNED JOB

- There are no overlapping duties or responsibilities.
- Duties are clear-cut, specific, and homogeneous.
- Each task that must be performed is assigned to some person.
- Every assignment is within the range of the safe work-load.

(No. 1 S.S.T.S. précis.)

# THE PARTY LINE

## TECHNICAL TRAINING IN THE R.C.A.F. AUXILIARY

By Pilot Officer S. G. French

*(Earlier "Party Line" articles have discussed the general organization and operation of the R.C.A.F. Reserve Forces. In the present article we are concerned with a detailed description of one aspect of Reserve training. As its writer emphasizes in a separate letter: "In order to give the reader a more intimate view of Auxiliary technical training, it has been considered advisable to focus his attention on one particular location in which such training is being carried out. Although No. 2 (Aux.) Group, Toronto, has been chosen as representative, it must be remembered that the training given there is essentially identical with comparable training in every other Auxiliary Group and Unit in Canada." Pilot Officer French, who has just completed his fourth summer's work with the Air Force, is now engaged in post-graduate philosophical studies at the University of Toronto.— EDITOR.)*

### INTRODUCTION

"PROVIDENCE", as Napoleon remarked, "is always on the side of the last reserve". The R.C.A.F., though not always in agreement with Napoleon, is assisting Providence by supporting a Reserve organization which is producing men who will be equipped to form a trained nucleus in the event of any future conflict.

The R.C.A.F.'s Reserve Forces are divided into three main components:

- Auxiliary.
- Primary Reserve.
- Supplementary Reserve.

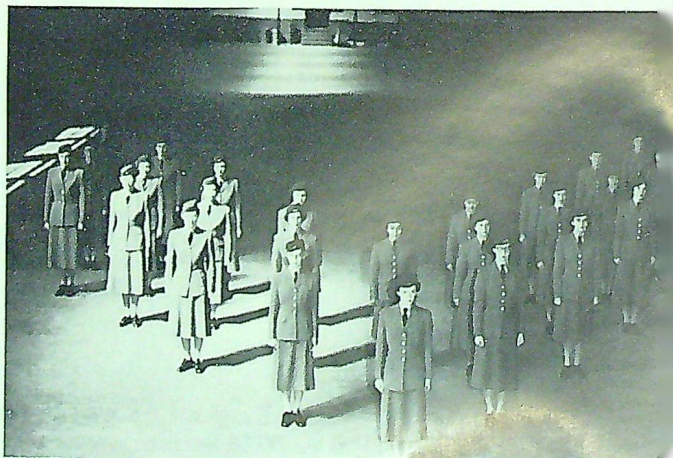
The purpose of this article is to describe the form taken by technical training in the Auxiliary. Because this aspect of Auxiliary training involves another branch of the Reserves — the Reserve Tradesmen Training Plan (R.T.T.P.) — it becomes necessary, in the introduction, to outline briefly the nature of both the Auxiliary and the R.T.T.P.

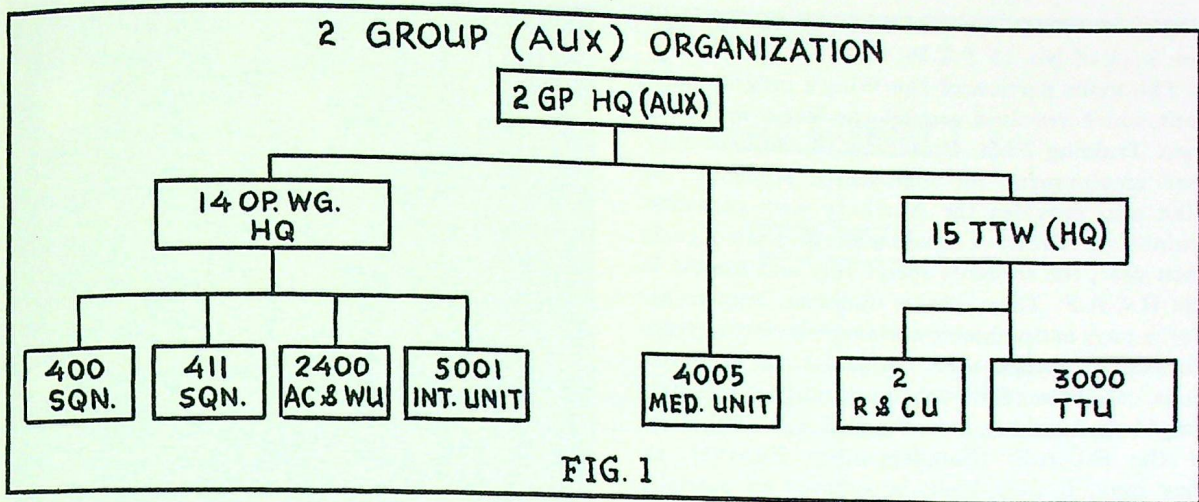
### The Auxiliary

Auxiliary units have been organized at strategic points throughout Canada, generally in the larger

cities. Training in the evenings and on week-ends, Auxiliary personnel may receive up to 71 days' pay annually. In order that they may gain experience in operational exercises, most personnel spend 15 of their 71 days' quota in full-time training at a Regular R.C.A.F. station. Officers and airmen alike are given opportunities to further their knowledge of their respective trades by taking Regular Force courses while receiving

*Airwomen's precision squad practising for C.N.E. grandstand display.*





full pay and allowances, in addition to their 71-day quota.

The Primary Reserve, in which airmen and officers receive training under various plans or schemes, has as one of the plans the R.T.T.P. After the Second World War, when Auxiliary units were re-formed, personnel of the Auxiliary were, for the most part, trained war-time officers and airmen. As is natural, these men are gradually leaving the Auxiliary. Officer replacements are obtained through such training plans as the University Reserve Training Plan, the Canadian Services Colleges, the Refresher Flying Training Plan, and the Mobilization Assignment Training Plan. The replacement of technicians is made through the R.T.T.P.

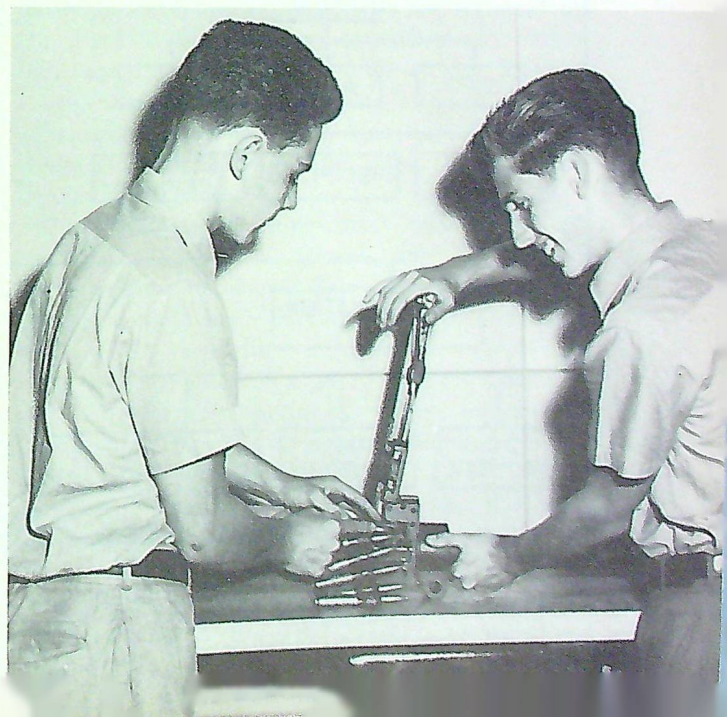
Specialized training is necessary in the technical trades in order that the Air Force's complex equipment may be adequately serviced. The R.T.T.P. offers formal courses for technical tradesmen, the aim being to bring them up to Group I standard. This training takes place in two stages, which will be described in detail below.

**NO. 15 T.T.W.**

Most Auxiliary units come under Air Defence Command, but a few are responsible to Tactical

Air Command. Both Training Command and Maritime Command have Auxiliary medical units under their control. No. 2 Group (which we are using as our example in this article, and which is responsible to Air Defence Command) is organized as shown in Fig. 1.

*R.T.T.P. trainees loading a Browning gun.*



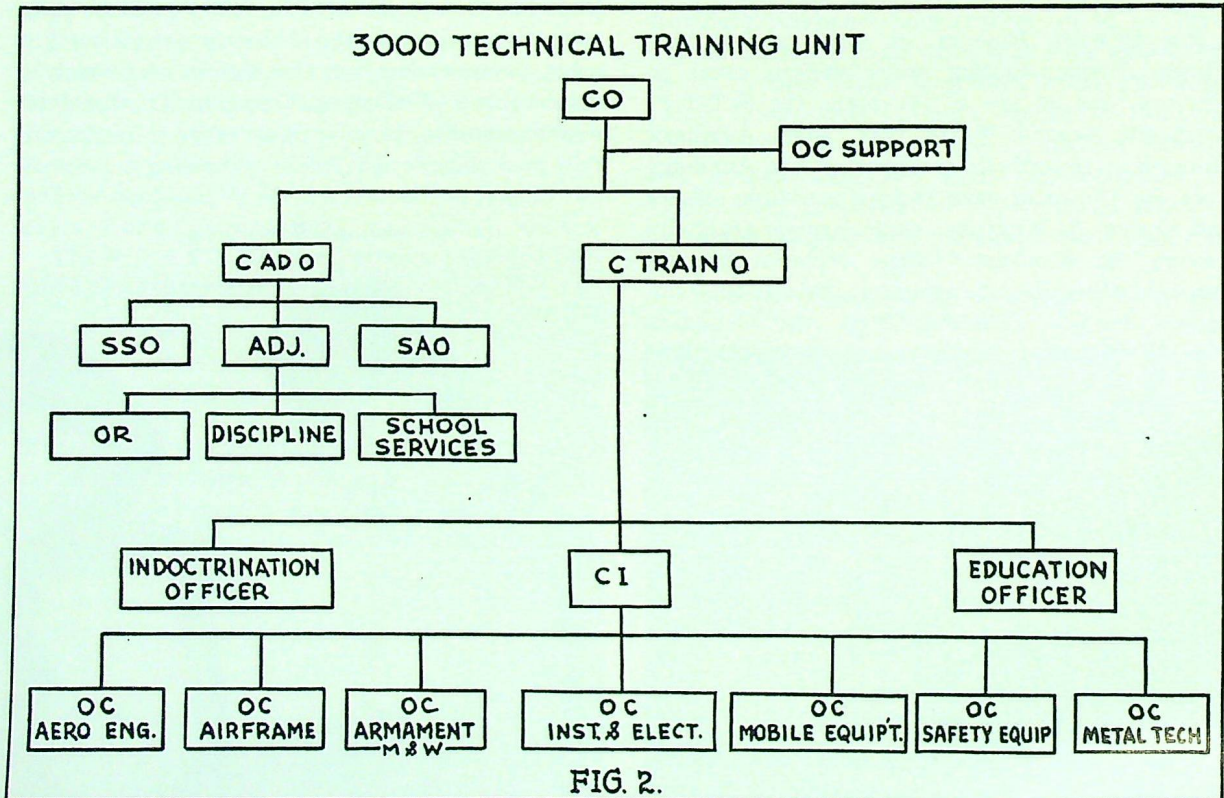
We, of course, are concerned specifically with the work of No. 15 T.T.W.

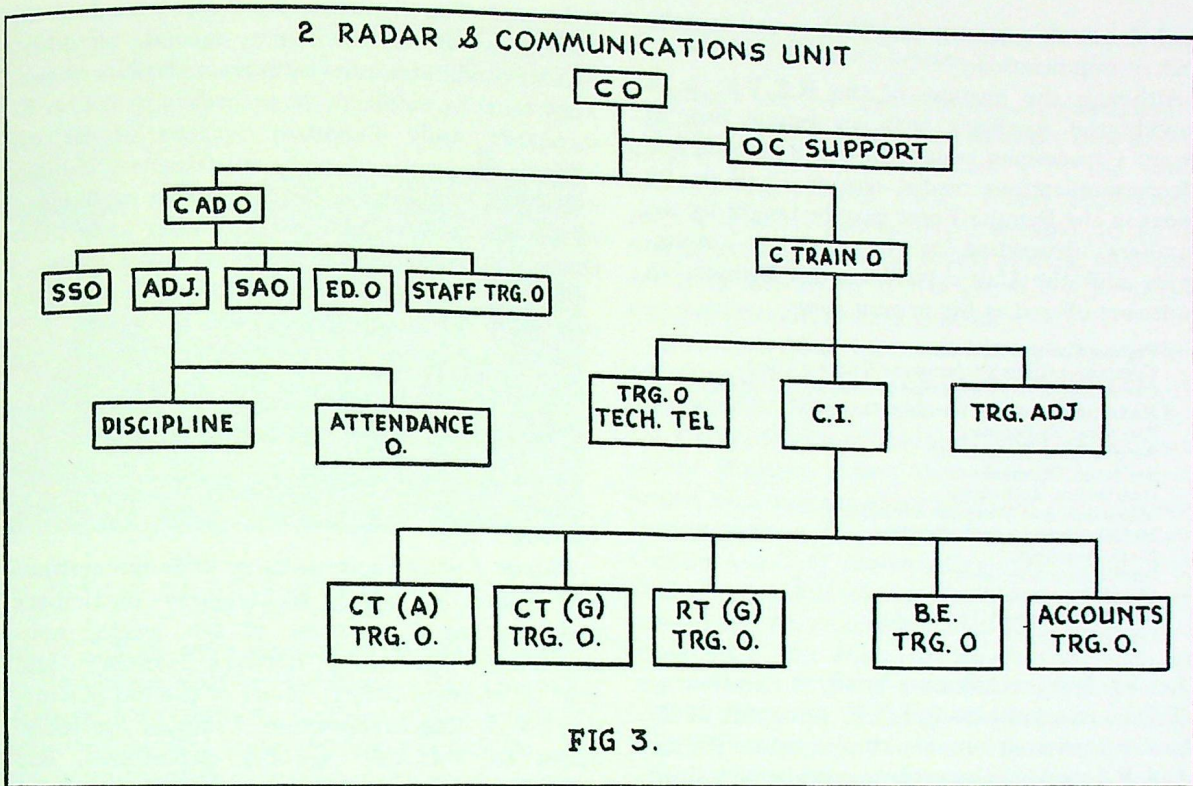
The main portion of the Wing's programme is that which revolves around the Reserve Tradesmen Training Plan. Providing educational summer employment for high-school students, the plan also provides the Auxiliary with personnel trained to Group I standards. Recruited early each year, the students spend July and August in the R.C.A.F. They receive uniforms, regular Air Force pay, and valuable training. Once they have successfully passed their Group I trade examinations, candidates have the opportunity of transferring to an Auxiliary unit, the R.C.A.F. (Regular), or the R.C.A.F. (Supplementary Reserve), or they may, if they wish, be granted an outright release.

Essentially, the job of the Technical Training Wing is to train tradesmen for the operational units. After their first summer, most of the



C.O.'s inspection. Left to right: Flt. Lt. E. R. Flewelling, Flt. Lt. G. M. Rogers, Flying Officer G. R. Howland, Group Capt. D. B. Coumans, M.B.E. Airwoman at right of photograph is A.W.2 J. A. Wilcox.





A.C.2 B. H. Hilton (left) and Cpl. D. E. Kilpatrick examine a six-man survival kit.



R.T.T.P. graduates go into the Operational Wing (with the exception of those who are retained by No. 15 T.T.W. as potential instructors). Other than age-limits similar to those of the Regular Force, there is no limit to the amount of time which may be spent in the Auxiliary. Continued advancement in trade and rank is the only requisite.

The technical training staff consists of 62 Auxiliary airmen and officers, and 19 Regular Force support personnel. Shown in Figs. 2 and 3 are the breakdowns of No. 3000 T.T.U. and No. 2 R. & C.U., respectively. Although two of the trade courses, namely Fighter Control Operator and Intelligence Specialist, come under the Operational Wing for all purposes during the rest of the year, they come under No. 15 T.T.U. for purposes of administration during the R.T.T.P. summer-course. The Disciplinarian course is



carried out directly by the Wing — and not the Unit — organization.

Although the purpose of the R.T.T.P. is to provide the Auxiliary with an annual flow of Group I tradesmen trained in major aircraft and telecommunications trades, any or all of the 90 trades in the Regular Force may be taught by the Auxiliary, depending on the country's requirements and the Unit's facilities. In Toronto, 15 trades are offered at the present time:

- Fighter Control Operator.
- Communications Performance Checker (Air).
- Communications Performance Checker (Ground).
- Radar Performance Checker (Ground).
- Electrical Technician.
- Aero-Engine Technician.
- Airframe Technician.
- Instrument Technician.
- Munitions and Weapons Technician.
- Mobile Equipment Technician.
- Clerk Accounts.
- Intelligence Specialist.
- Metal-Work Technician.
- Safety Equipment Technician.
- Disciplinarian.

Let us, then, recapitulate briefly the Auxiliary / R.T.T.P. relationship. R.T.T.P. personnel (high-school students on summer employment with the R.C.A.F.) spend the summer months being trained by the Auxiliary. On the completion of their courses, if they have successfully passed trade examinations identical with those given to Regular Force trainees, the students are given their Group I and the opportunity to join the Auxiliary. Those who do, either remain as instructors or carry out further training with the operational units, the purpose being, in both instances, self-improvement in grouping as well as in rank.

#### THE R.T.T.P.

##### Recruiting and Selection

Recruiting for the R.T.T.P. is carried on as early as possible each year. In addition to the advertisements placed in the local newspapers, high-school principals and guidance teachers in various areas are invited to attend gatherings at which they are made acquainted with the plan.

After all the applications are received, a thorough screening is begun. Candidates must, of course, reside in an area where an Auxiliary unit

is located. The candidate must have reached his sixteenth, but not his twenty-second, birthday. Female candidates must be at least 18 years of age. They must be medically fit according to R.C.A.F. standards. Only Canadian citizens or British subjects resident in Canada are accepted. Educationally, a minimum of Grade 8 or its equivalent is required. After the best applicants have been chosen to fill the quotas, selection takes place.

Division into trades is made after the indoctrination phase of training. Five criteria are used:

- Scores on the Classification Tests.
- The candidate's personal trade preference.
- The time of enlistment.
- The recommendation of the student's principal or guidance teacher.
- The quota which each trade can absorb.

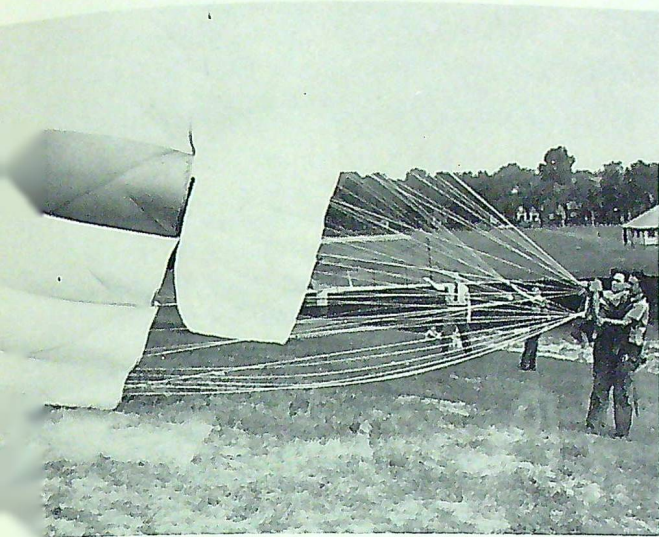
##### Training

*Phase I — Indoctrination.* The indoctrination phase, in which all trainees participate together, has a duration of ten weeks' non-continuous attendance between January and June. It consists of forty hours of ground instruction and a final examination. Trainees are introduced to R.C.A.F. customs, procedures, and drills. In addition, an attempt is made to develop pride and enthusiasm for the R.C.A.F., self-discipline, self-confidence, and "*esprit-de-corps*". All assistance possible is given to assist the trainee in making a wise and considered choice in his or her trade preference.

General Service knowledge, leadership, Air Force courtesy, military law, drill (squad, flight, and squadron), and trade descriptions, are all thoroughly taught in order that a solid foundation may be laid for the technical training which is to come. At the end of this period, an examination is given, the results of which also help in the task of trade placement.

*Phase II — Technical Training.* Any attempt to describe individually the training in each trade would involve considerable repetition. It is enough, for the purposes of this article, to give an accurate idea of the broad pattern followed.

The technical training phase involves two months' continuous work (a total of 240 hours) on selected Air Force equipment. The syllabi used by



Parachute-handling at Eglinton Park. Left to right: Cpl. H. Barry, A.C.2 G. B. Wise, Cpl. D. E. Kilpatrick, A.C.2 B. H. Hilton.

No. 15 T.T.W. were adapted by Auxiliary personnel from those used by the Regular Force schools. Changes were made to suit particular Auxiliary requirements and time restrictions. Despite the fact, however, that training-hours were cut almost in half, it is interesting to note that, at No. 15 T.T.W. in 1954, eighty-five percent of the R.T.T.P. candidates passed their Group I examinations — the same exams. as those used in the Regular Force. So excellent were these results that the syllabi used by No. 2 R. & C.U. and No. 3000 T.T.U. were adopted by all Auxiliary units throughout Canada.

No. 2 R. & C.U., modelled after the Regular Force's No. 1 R. & C.U. at Clinton, caters for four trades (see Fig. 3), and No. 3000 T.T.U., for eight. The trainee's day begins with a parade and an inspection at 0800 hours and contains eight 40-minute periods of technical instruction — six of them theoretical, and two in the workshops. Drill and sports each occupy one period a day, and one period is taken up in watching technical or, occasionally, general-interest films.

All courses have a twofold objective:

- To provide the trainee with sufficient knowledge of basic theory to understand the operation of the equipment with which he is concerned in his trade, and

- to give him a knowledge of his place in the Service and of the functions of allied trades.

Lessons are of the "lecture-demonstration" variety. Laboratory time, as well as the time spent in gaining practical experience, is of the "demonstrational-practical" sort. Where applicable, the use of safety precautions is stressed. In addition to theoretical and practical studies, students are given instruction in first aid, R.C.A.F. forms and publications, and fire-control.

One of the most important factors in the training given by No. 15 T.T.W. is the employment of training-aids. Results such as those achieved by the Fighter Operator Course in 1954 (100 per cent of the students passed their Group I) depend largely on a wise use of such aids. At No. 2 Group headquarters in Toronto one may find cut-away *Goblin* and T-47 engines; Chevrolet, Ford, and Dodge automobile engines for disarticulation and reassembly; Philco trainers; hydraulic and electric mock-ups of the *Harvard*; an electric mock-up of a car; and a 15 J-I-D synthetic target generator.

Each unit in the Training Wing has its own large well-stocked library. The librarians have, together with their job of assisting trainees to find reference books, the additional duty of organizing the films so that every trainee will see those films necessary for his training. The films — which constitute an important branch of training aids — are shown in No. 2 Group's four theatres, each of which has a seating-capacity of about thirty.

\* \* \*

Toward the end of the summer, parents and friends are invited to attend an "Open House". All the equipment and facilities used in the training programme are available for inspection. This year the new R.C.A.F. Accommodation Building, in which most of the training is conducted, was opened to the public for the first time. A display of drill by the airmen's and airwomen's precision flights is given each year in the drill hall. These annual evenings are invaluable for the publicity they give the R.C.A.F. and for the insight the public receives into one aspect of R.C.A.F. training.

## CONCLUSION

Under present policy, successful candidates who choose to transfer to the Auxiliary will join one of the squadrons or units. In the case of No. 2 Group, these are: No. 400 and No. 411 (Fighter) Squadrons, No. 2400 Aircraft Control and Warning Squadron, No. 2 Radar and Communications Unit, No. 3000 Technical Training Unit, and No. 5001 Intelligence Unit. Here they will continue their theoretical training, combining it with active participation in the servicing of operational equipment.

Parades are held one night a week and on alternate week-ends during the autumn, winter, and spring. During this period many activities are carried on. A course on pedagogy, similar to the School of Instructional Technique's course at Trenton, is held for those who have been chosen as potential instructors. Instructors improve

syllabi, prepare training aids, and give trade advancement lectures, at the same time working themselves for advancement in their own groups and ranks.

During the summers, trainees have the opportunity of going to camp at Regular Force stations and taking further trade training — unless, of course, they have been selected as potential instructors for the following year's R.T.T.P. students. This year found graduates of 1954 at R.C.A.F. Stations Downsview and Chatham.

At present, over fifty per cent of all Auxiliary technicians in No. 2 Group are R.T.T.P. graduates. In addition, it is estimated that approximately ten percent of the Group's graduates "go Regular". Final evidence of the value and popularity of technical training in the R.C.A.F. Auxiliary is the fact that more trainees apply for transfer than the operational units can absorb.

## ARCTIC MAP-MAKER

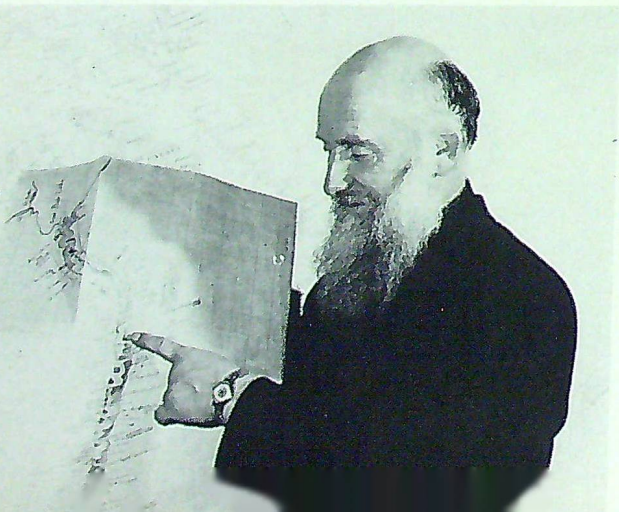
In 1930 a priest of the Oblate Order, Father L. E. Coty, came from France to work as a missionary at Arctic Red River, in Canada's North-West Territories.

Travelling alone by dog-team through the wilderness, he soon realized how inadequate were the existing maps of those regions. Therefore he set about making his own maps of his far-flung parish. Although he had no previous experience as a cartographer, the maps soon came to be preferred by the local R.C.M.P. officers and game wardens to the official government charts.

Shortly after the Second World War ended, Father Coty became convinced that someday Canada's northland might be threatened, and that, in order to defend it properly, accurate and detailed maps would be needed. He set himself the task of preparing maps covering the approach to Norman Wells.

For two and a half years he travelled up and down the Liard and Great Bear Rivers by stern-wheeler and by scow, patiently sketching on a piece of brown wrapping-paper every turn in the river, every rapid, and every rock, both submerged and visible. For taking soundings on the Liard River, he used a pole notched at one-foot intervals and discovered that the water-level could change as much as eight feet in three days as a result of torrential rains.

While the maps were being prepared, Father Coty made enquiries to ensure that they would get into the right hands. Our photograph shows him pointing out certain features on his map of the Great Bear River during his visit to the Directorate of Air Staff Services at A.F.H.Q.



# The ROYAL CANADIAN AIR CADETS



By Arthur Macdonald, Air Cadet League of Canada.

## THE PRESIDENT TRAVELS

As we write, League President George A. D. Will is making a cross-country tour during which he will attend all of the annual provincial committee meetings. This will bring the president in touch with representatives of every Air Cadet squadron in Canada and will, of course, give him the opportunity of discussing area problems as well as outlining the future plans and policies of the League.

The president is accompanied by the League's general manager, George M. Ross, and Wing Cdr. T. T. Scovill, Senior Air Cadet Liaison Officer at Air Force Headquarters. They are being joined in each area by the A.O.C. of the Group or Command concerned, as well as by the area liaison officers.

*His Excellency the Governor General making presentations to members of No. 17 (Yorkton) Squadron's rifle team.*



The president's tour got under way when he left Ottawa on October 10th, and it will not be concluded until the national executive holds its annual fall meeting on November 17th. At each stop, Mr. Will is asking for an all-out effort to boost Air Cadet strength and is also underlining the importance of keeping the local and provincial committees fully active.

*Group Capt. W. H. Swetman, D.S.O., D.F.C., C.O. of R.C.A.F. Station Summerside, inspects No. 562 (Cabot) Squadron. Behind him stands Dr. W. Buchanan, M.P. for Cape Breton.*





Left to right: Flt. Sgt. J. Goodhand, leader of Canada's entry in the International Drill Competition; Flt. Sgt. A. Parlee, winner of an overseas exchange trip; W.O.2 P. McGowan, awarded a flying scholarship; Sgt. R. Cross, selected for Senior Leaders' Course. (Stan Mulcahy photo.)

Five hundred air cadets of the Edmonton area paraded on Air Cadet Sunday.



## AWARD-WINNING SQUADRONS

Congratulations are extended to No. 398 Squadron, of Trinity College School, Port Hope, this year's winner of the R.C.A.F. Association Trophy, awarded annually to the most proficient squadron in Canada.

The Port Hope squadron scored the remarkable total of 1988 points out of a possible 2000 to wrest the coveted trophy from last year's winner, No. 266 (Kimberley) Squadron. This marks the first time the award has left Western Canada.

Other top squadrons for 1955 have also been announced by the League, as follows:

*Top Squadron in Western Canada (Guthrie Trophy)*  
No. 103 (N. Vancouver) Squadron.

*Guthrie Shields (by provinces)*

Lakehead . . . . . No. 84 (Port Arthur) Squadron.  
Manitoba . . . . . No. 177 (T.C.A.) Squadron, Winnipeg  
Saskatchewan . . . . . No. 17 (Yorkton) Squadron.  
Alberta . . . . . No. 187 (High River) Squadron.  
British Columbia . . . . . No. 135 (Vancouver) Squadron.

*Top Squadron in Atlantic Provinces (Price Trophy)*  
No. 529 (Atlantic) Squadron, Halifax.

*Top Unit in Quebec (A.O.C.'s Trophy)*  
No. 14 (Laval) Wing, Montreal.

## CADETS BUILD GLIDER

We learned recently that two Dutch air experts are helping cadets of No. 154 (Amherst) Squadron to realize their goal of owning an operational glider.

The "Kirby Cadet" single-seat training job was bought recently from the disbanded Gull Gliding Club of Stanley, N.S. and is now being rebuilt in the basement of the Acadia Street school.

Heading up the project are Peter Vriend, a former officer of the Royal Netherlands Air Force, and Bert van Leuween, an aeronautical engineer who worked with several European 'plane-manufacturers. The cadets helping van Leuween and Vriend have had two years' training in designing and building small gliders in the squadron's model-aircraft club. This experience led to a clean sweep of last year's maritime model-flying competitions at Amherst.

The glider has a 40-foot wing-span and an all-up weight of 600 pounds, which includes the pilot. It was flown for several years before being "moth-balled" in 1953.



The new pipe band of No. 155 (Sault Ste. Marie) Squadron.



Pictured after receiving graduation certificates from Air Vice-Marshal J. G. Kerr, C.B.E., A.F.C., are (l. to r.): W.O.1 R. Healey, W.O.2 A. Carscadden, and W.O.2 W. Goodall.

### SCHOLARSHIP FLYING TRAINING

Results of the 1955 R.C.A.F. flying scholarship training programme show that 216 cadets successfully completed the course and passed the Department of Transport examinations at the first writing. Another 17 failed the written examinations but will be permitted to write supplementaries, and no doubt many of these will have qualified for private licenses and Air Cadet wings by the time this appears in print. Seventeen cadets were, for one reason or another, unable to complete their training.

Top cadet on the scholarship course was Neil T. Mosier of No. 151 (Oshawa) Squadron, who scored an average of 87.67% on the written and flying tests. He will receive the special League trophy donated by Past-President M. Banker Bates.

In addition to the R.C.A.F. course, 56 cadets were trained under special scholarships provided by civilian committees of the League. Fifty of these candidates completed the course successfully, the top cadet being R. J. Dunn of No. 13 (Windsor) Squadron, with an average of 87.6%.

### MANAGEMENT

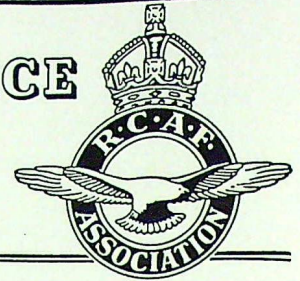
When two or more people combine their efforts to accomplish a task, an organization is formed; and any organization, however large or small, has only four resources with which to accomplish its objective. The resources are **TIME, SPACE, MATERIEL, and PERSONNEL**. The science of management teaches the efficient and proper use of these resources. (No. 1 S.S.T.S. précis.)

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# ROYAL CANADIAN AIR FORCE

# Association

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## BATTLE OF BRITAIN ANNIVERSARY

All over the world on Sunday, September 18th, people in every walk of life paid tribute to those airmen who gave their lives in the greatest aerial conflict ever fought — the Battle of Britain. Memories of great events can be short-lived, but the memory of the Battle of Britain does not fade.

Wings of the Association across Canada held Battle of Britain Banquets and actively participated in the Memorial Services.

## FUTURE PLANS

Air Vice-Marshall K. M. Guthrie, C.B., C.B.E., National President, reports that the R.C.A.F. Association is actively reviewing and overhauling its organization, projects, and activities, on a coast-to-coast basis.

The Association proposes:

- to stress "air power for national security and world peace" throughout Canada and to endeavour to make all citizens more conscious of the vital importance of a strong and efficient R.C.A.F.;
- to aid the R.C.A.F. in every possible way in the maintenance of adequate air-crew and ground-crew strengths;
- to help in building up strong and efficient Auxiliary and Reserve Air Forces and Ground Observer Corps;
- to help maintain the morale of R.C.A.F. personnel at a high level;
- to build up its own effective membership to 15,000 as rapidly as possible;
- to keep its members and, as widely as possible, the civil population abreast of developments in aviation;
- to foster the spirit of fellowship among all airmen, past and present, and to aid those in need;
- to assist in building up the Air Cadet movement in co-operation with the Air Cadet League of Canada; and
- to promote "civil preparedness" throughout the civilian population.

## NATIONAL PRESIDENT IN THE MARITIMES

Air Vice-Marshall Guthrie visited all Wings in the Maritimes during September. The itinerary



No. 251 (Madawaska) Wing. Left to right: R. V. McCabe, J. Z. E. Clavette, Air Vice-Marshall Guthrie, L. F. Perron, R. N. Landry. (Studio Laporte photo.)

included stops at Fredericton, Saint John, Yarmouth, Liverpool, Halifax, Sydney, St. John's, Summerside, Charlottetown, Moncton, Amherst, Truro, Stellarton, Chatham, Bathurst, Campbellton, and Edmundston.

The President made a television appearance in Saint John and radio broadcasts in Moncton and Edmundston. Throughout the tour, he stressed the importance of air power to world peace, and reiterated the importance of the R.C.A.F. Association as "Ambassadors of the R.C.A.F."

The purpose of the tour was to meet the executives and members of the Wings, to help the Wings with local problems, and to collect information from the more successful Wings which in turn



Members of Nos. 100 (Bluenose) and 101 (Atlantic) Wings pose for photograph during visit of National President in September.

will help the less fortunate Wings across Canada.

During his visit to St. John's, Newfoundland, the President was accompanied by Air Commodore M. Costello, C.B.E., Air Officer Commanding, Maritime Air Command.

The visit to Moncton was made during the Battle of Britain week-end. Air Vice-Marshal Guthrie paraded with the members of No. 253 Wing on Sunday, September 18th. He was guest of honour at a Battle of Britain celebration held at No. 5 Supply Depot in the afternoon.

One of the highlights of the tour occurred in Edmundston, when Air Vice-Marshal Guthrie was created an Honorary Citizen of the Republic of Madawaska. The ceremony was performed by Dr. P. C. Laporte, famed Canadian sculptor and one of Edmundston's leading citizens. This honour has been bestowed upon a dozen distinguished men in the world, including Premier Nehru of India.

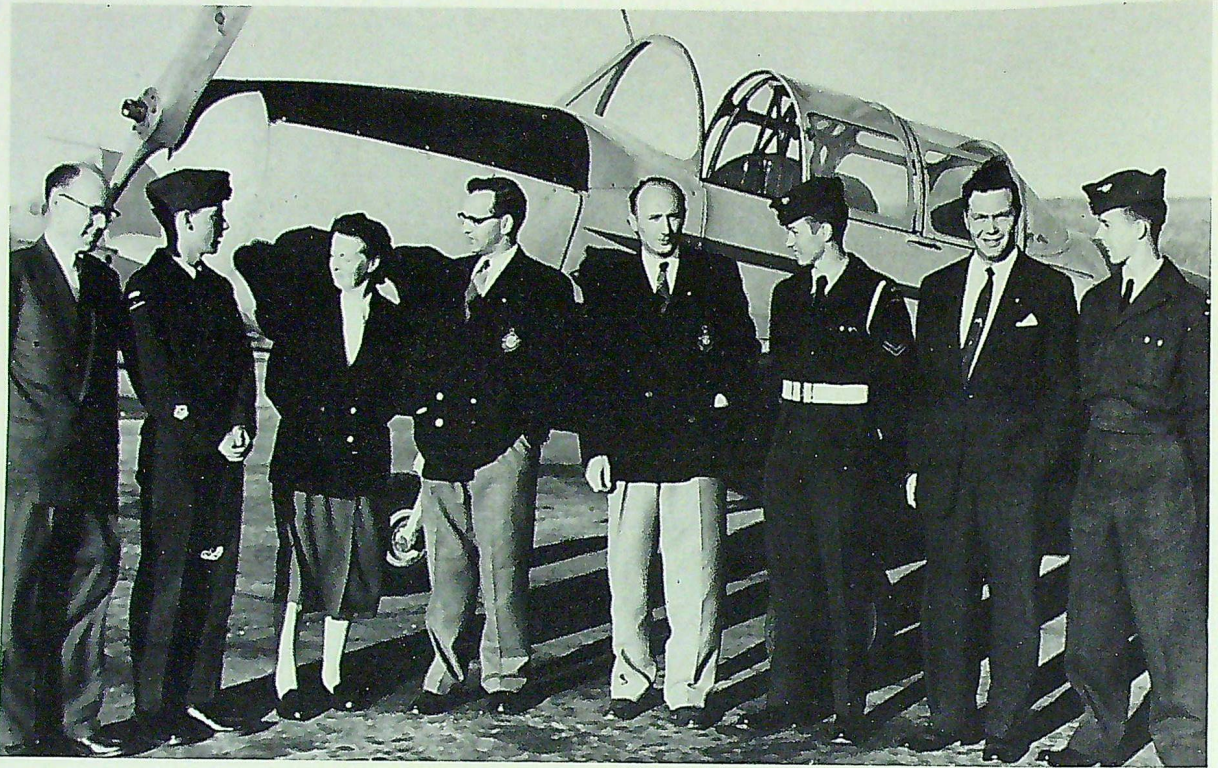
The President was very impressed with the progress of the Maritime Group. It is one of the

largest and most active Groups in Canada. Most Wings have excellent accommodation or are in the process of getting it. He was particularly pleased with the contribution which the Wings are making to their respective communities by R.C.A.F. Association projects.

#### WING NEWS

##### Montreal Wings Council

The Council during the past few years has been responsible for the many *Bon Voyage* parties given to personnel of the Air Force and their dependents proceeding overseas from the Montreal area. It has done a wonderful job on this project under the chairmanship of Mr. James H. Ewart, of No. 306 (Maple Leaf) Wing. Mr. Ewart has recently found it necessary to relinquish the position of chairman of the Council, and his duties have been assumed by Mr. James B. Ritchie, also of No. 306 Wing. To Mr. Ewart we extend our sincere thanks, and to his successor we wish all success in this most important work.



*No. 253 (Moncton) Wing. A group taken on the occasion of Air Cadet introductory flights. Left to right: R. P. Williamson, A. McKenzie, Mary Jones, R. Wood, R. Roper, R. Broley, T. Nolan, D. McQuinn.*

#### **No. 306 (Maple Leaf) Wing, Montreal**

Summer activities at No. 306 Wing included the annual Golf Tournament at Sorel. Competing for the Lord Calvert trophy were teams from No. 306 Wing, No. 302 (Quebec), the Pathfinders' Association, and No. 401 Squadron. The trophy was won by No. 306. Credit for the success of the tournament is due to Mel Lawson and Art Clibbon.

The Wing's winter programme, under the capable direction of Greg Harrison, has now been published. It includes the following meetings:

- September: Football Night (Alouettes).
- October: City Government Night (Mr. Pacifique Plante).
- November: Armistice Night (top Navy, Army, and Air Force personnel).
- December: Air Force Night (Deputy Minister of National Defence).

#### **No. 410 (Ottawa District) Wing**

Some fifteen members of No. 410 Wing operated the refreshment booth at the Maxville Scottish Games, at Maxville, Ontario. A crowd of 15,000 attended, and the venture was a financial success.

#### **No. 411 (Chatham) Wing**

This Wing reports a very successful dance held recently, at which a draw for the "pot-of-gold" took place. The Wing proposes to hold another dance in the latter part of October, with another draw.

During the summer the Wing sponsored its first annual picnic for members and their families at Rondeau Park, and reports a splendid attendance on this occasion.



*Publicity booth of the Montreal Wings at R.C.A.F. Station St. Hubert on Air Force Day. R. Thompson (left) of No. 306 Wing, and G. Michalak, of No. 310.*



*No. 406 (North Bay) Wing. A. Larden, outgoing president, congratulates new president, W. Saya.*

Another project under Wing sponsorship is its second annual Peanut Drive later on in the year, part of the proceeds of which will go to the Kent Cerebral Palsy Association.

#### **No. 600 (Regina) Wing**

S. Malach, secretary of No. 600 Wing, reports that all members of the Wing have become affiliate members of the Regina Flying Club. This provides the Wing with a suitable meeting-place. The big factor in this arrangement is the sponsorship of the three Air Cadet squadrons in Regina. Both No. 600 Wing and the Regina Flying club are vitally interested in the project.

#### **No. 802 (Vancouver) Wing**

At a recent dinner-meeting of No. 802 Wing in Vancouver, held in the Pacific Athletic Club, a report on the National Convention was given to the members, and activities for the coming year were discussed and planned.

#### **MARITIME TOUR OF CENTRAL BAND**

The R.C.A.F. Central Band made a tour of the Maritimes this year during the month of July.

Seventeen Wings of the Association were visited and a number of engagements were filled at R.C.A.F. Units. An advance agent visited all Wings prior to the tour.

Band concerts were given in the afternoon or evening, followed by dances. All were well attended and greatly appreciated. Such visits by the Central Band across Canada are very helpful and assist to increase the prestige of the Royal Canadian Air Force and the Association in the eyes of the public. The Association is deeply grateful to the Air Force for its co-operation.

The mailing list for "The Roundel" is being corrected to date. Those members who have not paid their 1955-56 dues will, of necessity, be suspended from the list. Please forward your dues and avoid missing the magazine.

# They Came, We Saw, They Conquered

By Chris Muir

*Sgt. Shatterproof, we may as well admit, was at first in two minds about this little item. As he remarked when he read it last August: "The knightly instincts that inspire my breast, Sir, though not unhorsed by Mr. Muir's reference to a Section Officer's — er — legs, sit somewhat restlessly in the saddle. Would he, do you think, consent to refer instead to some less provocative portion of the female anatomy?"*

*I eyed the man sternly. "Shatterproof", I said, "you insult the Sex. All portions of a lady's anatomy are, to the true chevalier, equally provocative."*

*His face became adamant. "Only a debauchee, Sir —" he began; then stopped abruptly as his attention was distracted by a flash of bright colour outside the office window. It was Claudette, dressed for the heat-wave, on her way to the canteen — and Claudette's ensembles, when the thermometer stands at 99° in the shade, would probably knock down Sir Galahad's potential by the strength of at least a couple of his normal ten.*

*When she had vanished from sight, Shatterproof's expression softened. "But perhaps you are right, Sir. We must be understanding in these matters. After all, what are legs?" I told him that that was a subject on which my thoughts changed from year to year; and presently he took his leave. A few moments later I saw him marching purposefully towards the canteen — in quest, no doubt, of some clues that might give him the answer to his own question.*

*The following very brief sketch is one of several which Mr. Muir, a Canadian from Toronto, wrote while serving with the R.A.F. overseas during the war. We hope to publish more of them from time to time. The years that have elapsed since they were written do not seem to us to have robbed them of interest. As Shatterproof has more than once said: "The boy in the field is eternal. The legionaries whom my ancestor Semper Absens Shatterproof the Centurion led against Dimwitorix the Gaul differ only in name from those devoted lads who battle for their lives in the R.C.A.F. today. Aesemper nobiscum."\**

— Editor.

Now don't get me wrong. I'm not a woman-hater. On the contrary, women are beautiful things to look at. They have babies, and are necessary in our scheme of things. A sure way, however, of throwing chewing-gum on a crowded rink in the middle of the Skater's Waltz, is to have an avalanche of W.A.A.F.s descend upon what has previously been a peaceful and law-abiding R.A.F. station.

The W.A.A.F.s have been here three weeks. They have, during all that time, systematically and methodically hampered our war effort to the point where it is doubtful as to whether we will win or not. Every man-jack on the site is going around in a daze, stumbling over rocks or banging into telephone posts. Tools are left out in the weather. Maintenance forms remain unsigned. Everything is at a standstill. Only yesterday,

\*The motto of the House of Shatterproof. Can be translated either as "The sword is ever at our side" or "The Brass we have always with us".

when making a transmitter inspection, I found a pipe lying on the high-voltage condenser. From keen and reliable radio technicians, my boys have turned into meek irresponsible has-beens without the slightest idea as to what goes on in the world. If I pass the time of day with the duty mech, I am answered with:

"Huh? Oh yes. Straight ahead, and then to the left. You can't miss it."

Poetry has become the literature of the day. Secret technical documents remain in the vault.

There have been other complications as well. One of the lads, having fallen in a big way for a curvacious Irish gal, had been wandering around for days with his eyes crossed, when the said Irish gal stepped out with one of the officers. The officer, no doubt a past master in the art of keeping Irish gals entertained, kept her out until pretty late. Mac just about went berserk. We had to hog-tie him to a fence in order to keep him from murdering in cold blood that "curly-haired tooth-brush moustached W.A.A.F.-snatcher." We tried to persuade him that it was all a part of the war-time Air Force tradition. The matter of tradition, however, was something which Mac didn't appreciate. In any event, he isn't speaking to anybody these days, and even the fact that his W.A.A.F. is trying to make up with him again doesn't appear to be doing much for his personality.

Judy advises me to have nothing to do with Jane. Jane, it would appear, has a mean disposition, an uncontrollable temper, and (with a glance at the floor) other undesirable traits as well. The duty watch changes, and Jane comes on duty. Jane advises me to have nothing to do with Judy, as Judy has a mean disposition, an uncontrollable temper, and a boy friend in every squadron.



With the W.A.A.F.s have also come 2,213 new orders. As if there aren't enough already! A W.A.A.F. radio mechanic is not permitted to work alone in proximity to high voltage. She must not climb ladders. She may lift a condenser if it has a part number 24A-16714, but not if it has a part number 22A-16714. A Section Officer can charge the unsuspecting airman who may have cast an admiring glance at her calves, with — you won't believe it — dumb insolence.

How I long for the good old days, when our biggest worry was whether we were going to have Brussels Sprouts for dinner again.

### SIX STALWARTS

I keep six honest serving-men  
(They taught me all I knew);  
Their names are *What* and *Why* and *When*  
And *How* and *Where* and *Who*. (Kipling)

# CHESHIRE

A Review Article by  
Wing Commander F. H. Hitchins, Air Historian.

THE explosion of two atom bombs over Hiroshima and Nagasaki on 6 and 9 August 1945 marked the dawn of a new era in human history and confronted mankind with a challenge to which it has not yet found the answer. To one man, however, the dreadful spectacle at Nagasaki, which he witnessed as an official observer, came as "his personal moment of destiny", and he at least has found the answer to the challenge. Bombing attacks were no new experience to Group Captain Leonard Cheshire. As a pilot in Bomber Command, he had himself taken part in 100 such operations between 1940 and 1944, and his long career, which had brought him the D.F.C. and three D.S.O.s, was crowned by the award of the Victoria Cross and general recognition as the greatest bomber pilot in the world. But Cheshire returned from Nagasaki "a changed man", a crusader for a return to the Christian way of life. This transition from war to peace is the theme of Mr. Russell Braddon's biographical study.\*

Cheshire's boyhood followed a normal pattern. The son of a distinguished professor of law, Leonard attended public school at Stowe, where he is remembered as "a short, slim, quiet boy" and "a good, average chap". In the "Grand Tour" tradition, he spent a year in Germany when Hitlerism was at its height. The only result of his sojourn there was to give young Leonard a passion for fast motor cars, which he indulged as soon as he returned to England to study law at Oxford in the family tradition. His scholastic career was un-



*Group Capt. Leonard Cheshire, V.C., D.S.O., D.F.C.*

distinguished. It was at Oxford, Cheshire says, that he "started not to work". A typical undergrad of the mad '30s, he ran riot in many escapades, keeping late hours, drinking hard, driving fast, and sporting a succession of gorgeous blondes. Once, to win a wager for a pint of beer, he made his way from Oxford to Paris and back with only fifteen shillings in his pocket. From fast motor cars he turned to flying and joined the Oxford University Air Squadron. Although he was just an average pilot, that fact did not discourage him from considering a hare-brained plan to fly the Atlantic with the college boilerman as his navigator.

On graduation from Oxford in 1939, with Second Class Honours, Cheshire applied for and received a permanent commission in the Royal Air Force. He welcomed the outbreak of war as "salvation from a life of futility, from the practice

\*Russell Braddon: "Cheshire, V.C. A Study of War and Peace." Evans Brothers Limited, London, Eng.; 1954. Pp. 217. Illustrated. Distributed in Canada by the British Book Service (Canada) Ltd., Kingswood House, 1068 Broadview Ave., Toronto 6, Ont. Price \$3.00.

of law, from the nagging need for excitement which he seemed never able to satisfy." The war, he says, "gave me a motive for life and an authority to live under. I was glad to get into it." Although he originally hoped to go on fighters, he was sent to bombers after heading his class at the officers' training unit, and was soon well content with the change. In the spring of 1940, with No. 104 (*Whitley*) Squadron, he started on the first of the four tours which were to make him a legendary figure in Bomber Command.

The early part of his operational career Cheshire has himself described in "Bomber Pilot", one of the finest books published during the war; and his later career, as the leader of No. 617 Squadron, has already been told in detail in both W. J. Lawrence's history of No. 5 Bomber Group and Paul Brickhill's volume on "The Dam Busters". This part of Mr. Braddon's study is a familiar story.

Speaking of his war operations, Cheshire says "I didn't really have a talent for flying; just a flair and luck." His reputation for being lucky was certainly well founded — no one could have survived 100 bombing sorties without an extremely generous measure of luck — but there was more than luck. There was supreme courage: while still a pilot officer, he won the D.S.O. for bringing his badly damaged *Whitley* back from Cologne. There was thorough knowledge of his aircraft — he could find his way around in it blindfold; and there was his ability to win the confidence and affection of his ground crew.

At the end of his first two tours, in 1941, Cheshire was sent to the United States on a mission and, while there, entered into a whirlwind marriage which broke up a few years later. On his return to the United Kingdom he was promoted to wing commander and placed in command of No. 76 (*Halifax*) Squadron. The tide of war was turning now, in the fall of 1942; victory was in the air and Cheshire was "a man suddenly inspired with new ideas which he was prepared aggressively to put forward". Although he was supposed to make only one trip a month as a squadron commander, he managed to get in two or three; and again he revealed his genius for

getting people to do things for him by organizing the ground crew into a "Plumbers' Club". A brain concussion, suffered in a car accident, so affected his health that he finally had to be grounded in April 1943, with a Bar to his D.S.O.

Promoted to group captain at the youthful age of 25½, Cheshire was given a desk job in charge of instruction at Marston Moor, and he loathed it. Administration was not his cup of tea; he preferred to lead by personal example, not by paper directives. He was therefore only too glad to revert to wing commander and return to operations in November 1943 as the commander of No. 617 Squadron which, by its breaching of the dams and other spectacular feats, had gained the reputation of being "a suicide squadron". In the next eight or nine months Cheshire led his crews on about 40 operations and introduced a new technique of target-marking.

High on Bomber Command's list of priority targets at this time were the rocket and flying-bomb sites which the Germans were constructing in northern France. Against such pin-point targets the usual method of high level marking lacked sufficient accuracy for precision bombing. Cheshire and his brilliant Australian colleague, "Mick" Martin, demonstrated that the markers could be laid "bang-on" by coming down in their *Lancasters* in a thirty-degree dive to four hundred feet from the objective. After some tests of the new technique against rocket sites, Cheshire made a full-scale demonstration on the Gnome-Rhône factory at Limoges, where he first made several low passes over the target to give the workers time to leave before the bombs went down. It was tried again at Antheor viaduct, where Cheshire says that he lost his nerve in the face of the intense flak that severely damaged Martin's aircraft. *Lancasters* were too vulnerable for low-level marking, so Cheshire asked for *Mosquitoes*, and No. 617 used them with outstanding success against Munich to prove the value of this "startling new technique of bomb-marking". With the new method and the new 12,000-lb. "tallboy", or earthquake bomb, which Barnes Wallis had developed, Cheshire led his crews against the Saumur tunnel, the E-boat pens at Le Havre, and

a long list of "Crossbow" (rocket and flying-bomb) sites. As the final touch to his new technique, he borrowed a *Mustang* from the U.S.A.A.F. and, single-handed, marked the target and directed the bombing.

In July 1944, after he had flown his 100th sortie, he was again taken off operations, restored to the rank of group captain, and given the supreme accolade, the Victoria Cross. His reputation, the citation said, was "second to none in Bomber Command".

The bombers' war in Europe was drawing to its final, shattering close, and, after a few months' rest, Group Captain Cheshire was sent to south-east Asia to witness the final phase against Japan. From Burma he went to Washington and then back to the Marianas. On 9 August 1945 he was one of the two British official observers who witnessed the dropping of the second atom bomb. As the great mushroom cloud rose over Nagasaki, "his mind revolted against everything that (it) implied". Here was "the ultimate threat of man's own godless inventiveness against man." "There must be some power higher in the universe than that of nuclear physics. There must be something that he personally could do." There was.

\* \* \*

At the beginning of 1946 Cheshire retired from the R.A.F. to devote himself to his new mission. Believing that "to survive, the world must turn to a Christian way of life", he set out to establish colonies ("Vade in Pacem"—Go in Peace—he called them) where men and women could lead a better and more enjoyable communal life. With 70 enthusiasts, two homes were established; but "V.I.P." failed, and Cheshire had to hurry home from Canada, where he had gone for six months to rest and restore his failing health. The colonies were hopelessly in debt, and he had nothing left but the ideal—and the bills. The debts he paid off; the ideal he retained.

Hearing that one of his ex-colonists was dying from cancer, Cheshire moved the man into Le Court, one of his "V.I.P." homes, and became his nurse. Then a bed-ridden woman of 94 was added

to his care, and Le Court grew as he took in "anyone who knocked on the door". Money and support began to come in from many sources. Cheshire never let financial problems worry him; with supreme faith he knew that the money would be there when it was needed. It was at this time, late in 1948, that Cheshire, deeply impressed by a book he had read, became a Roman Catholic.

The responsibility of Le Court, the long hours and hard work it involved, again affected his health, and early in 1951 Cheshire was persuaded to turn the home over to a board of trustees and take a more regular job as a research expert with Vickers-Armstrong. He put in his regular office hours, but spent his off-duty time in founding another home, St. Teresa's, in some derelict buildings near the airfield at Helston. This home for the chronically sick was soon followed by a third, Holy Cross, for mental cases.

In 1952 he resigned from his research position and soon after collapsed with tuberculosis. Although for two years he was confined to a sanatorium undergoing four major chest operations, this was "the most productive period of his life". From the hospital room he carried on correspondence, dictating his letters on a tape-recorder, and waged a "bedside crusade" to spread his message of simple and practical Christianity. Three buses were fitted up to tour the country, with interesting displays to attract spectators to listen to the talks that Cheshire had recorded. From hospital, too, he arranged the foundation of his fourth home, St. Cecilia's. As soon as he was allowed out of hospital for a week-end, in the spring of 1954, he flew to the shrine at Lourdes and on his return immediately organized monthly charter flights so that other invalids could make the pilgrimage too.

The Cheshire Foundation Homes, managed by trustees on a non-sectarian basis, are now well established to "provide a new life of cheer and comfort to cripples, the chronically sick, the neurotic, the aged, and the dying." In an age when other people, shaken and afraid, are wondering what to do, Cheshire has found something and gone out and done it.

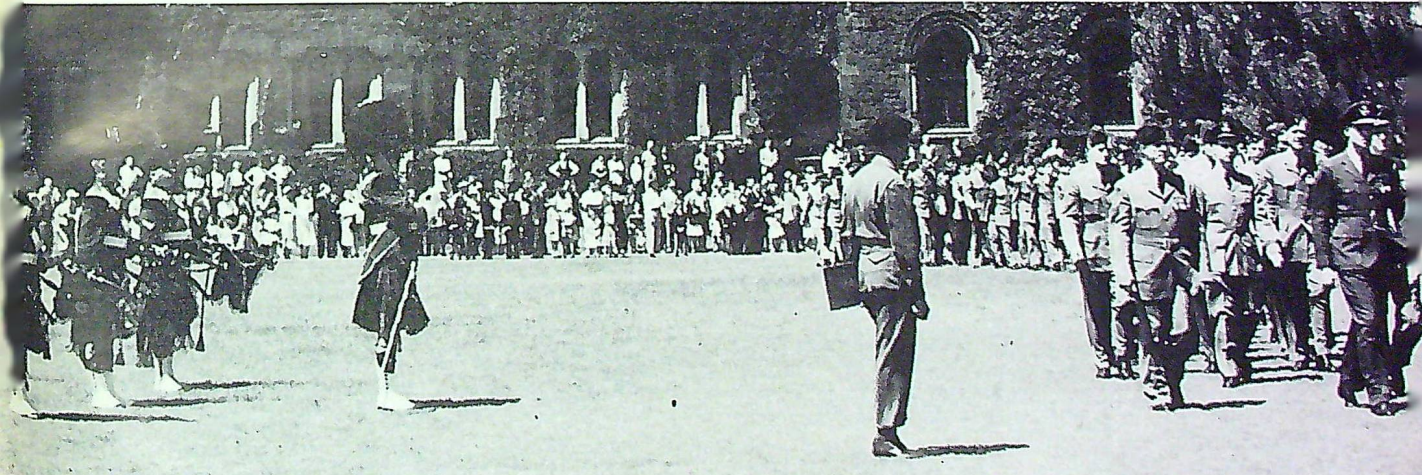
The facts of Cheshire's remarkable career — in war and in peace — are clear enough; the man himself is much more difficult to define. Mr. Brickhill describes him as "a strange blend of leader, intellectual, man of action, and man of ideas and ideals (sometimes eccentric and seldom conformist)." Mr. Braddon, who found Cheshire "the sanest and most contented man . . . I have ever known", speaks of the "enigma" of his personality, "elusive and difficult of description".

He can be very precise or equally evasive; coupled with his streak of "erratic brilliance" and his "steady stream of new ideas" is an indomitable "tendency towards frivolity". "You define him at your own peril." In the opinion of some, Cheshire is simply "round the bend"; others see in him a twentieth-century saint. What the final judgment on him may be is, at the moment, of no great concern, least of all to Leonard Cheshire. His work speaks for itself.

## TWO R.C.A.F. BANDS

Our top photograph shows the trumpet and drum band of No. 4 Fighter Wing, led by Drum-Major L.A.C. T. H. Going, marching through the cobbled streets of Buehl, on the edge of the Black Forest. At a recent band competition held in the town of Oberachern, the Canadians were invited to lead a parade of more than thirty German bands. On that occasion, Cpl. Ruth MacFarlane, who plays the glockenspiel and is the only woman member of the band, was presented with a large bouquet of roses by the town's Bürgermeister.

Below, the pipe band of No. 400 Sqn. (Aux.) stands by while Sqn. Ldr. M. F. Cliff, C.O. of No. 411 Sqn. (Aux.), leads his squadron into position on the campus of the University of Toronto at the city's annual garrison parade.



# Letters to the Editor ★ ★ ★

## R.C.A.F. VOLUNTARY BANDS

Dear Sir:

I was disappointed to note that Sqn. Ldr. Kirkwood's interesting article on bands devoted only a few lines to the voluntary bands of the R.C.A.F. No mention was made of the Trenton band, which became famous during the Royal Visit in 1939, and of which I was proud to be the Bandmaster. A great deal of credit is due to the fellows who pioneered in this effort. Most of them supplied their own instruments as well as the classy uniforms which were authorized by A.F.H.Q. and designed by the late Air Marshal H. ("Gus") Edwards and myself.

The first voluntary band was organized at Camp Borden during the early days of the R.C.A.F. by L.A.C. Alf Cooper, a graduate of Kneller Hall (on the bassoon), and Sgt. Frank Tucker, also a graduate of Kneller Hall and an excellent musician.

The Trenton band was organized in June 1936, and on the first parade a total complement of thirteen made some sort of a noise. At the time of the Royal Visit, the band had a well-balanced instrumentation of seventy and was considered one of the finest bands in the country. Its members travelled far and wide at their own expense, playing for charity, and they raised quite a considerable sum of money for the Red Cross during the early days of the war. A finer bunch of fellows could not be found in the Dominion of Canada, and I have a warm spot in my heart for all of them. The old voluntary bandsmen put up with a lot of inconvenience and gave all they could possibly give to the band and the Service.

Some of them are now serving as commissioned officers in their various trades; and others, like myself, have had to bow to the years and are putting their efforts for the Air Force into other activities.

Wing Cdr. T. F. Cooper, O.B.E. (retired),  
Air Cadet Headquarters,  
St. James, Winnipeg.

OH, NO!

Dear Sir:

The place-names on the cover-map of the September 1955 issue of "The Roundel" have me a bit confused. I refer specifically to the location of Mould Bay and Isachsen. If these two outposts are indeed situated as you show them, then I have, during my enjoyable tour with A.T.C., deposited at Mould Bay several men and a great deal of equipment originally assigned to Isachsen, and *vice versa*.

Sgn. Ldr. G. M. Stuart,  
No. 14 Group H.Q.

*"(Something like this," writes Sgt. Shatterproof, "was bound to happen sooner or later. No man, Sir, can treat the atlas lightly and get away with it. Meanwhile, a transfer of the editorial offices to Baffin Island might help to familiarize us with the geography of the Arctic."—EDITOR.)*

## ADDENDUM

In our September issue we printed a review of T. E. Lawrence's posthumously published book, "The Mint". We omitted, however, to include the price or the name of the book's Canadian distributor. "The Mint" can be obtained from any established bookshop or directly from its distributors, Clarke, Irwin & Co. Ltd., 103 St. Clair Ave. West, Toronto 5, Ont. Its price is \$3.50.

## Answers to "What's the Score?"

1: (c)	2: (b)	3: (a)	4: (b)
5: (d)	6: (a)	7: (b)	8: (a)
9: (c)	10: (b)	11: (d)	12: (a)
13: (b)	14: (c)	15: (d)	16: (d)
17: (b)	18: (a)	19: (d)	20: (b)

★ ★ ★

★ ★ ★

## THE LEADER

Views expressed in "The Roundel" upon controversial subjects are the views of the writers expressing them. They do not necessarily reflect the official opinions of the Royal Canadian Air Force.

The old saying that "leaders are born" is pure nonsense that was created as a defence for lazy, incompetent, and indifferent leadership. The skills, techniques, and qualities necessary in a leader can be learned or acquired with a surprising amount of ease. (No. 1 S.S.T.S. précis: R.C.A.F.)

## THE R.C.A.F. BENEVOLENT FUND

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

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

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

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

