The CROUNDEL

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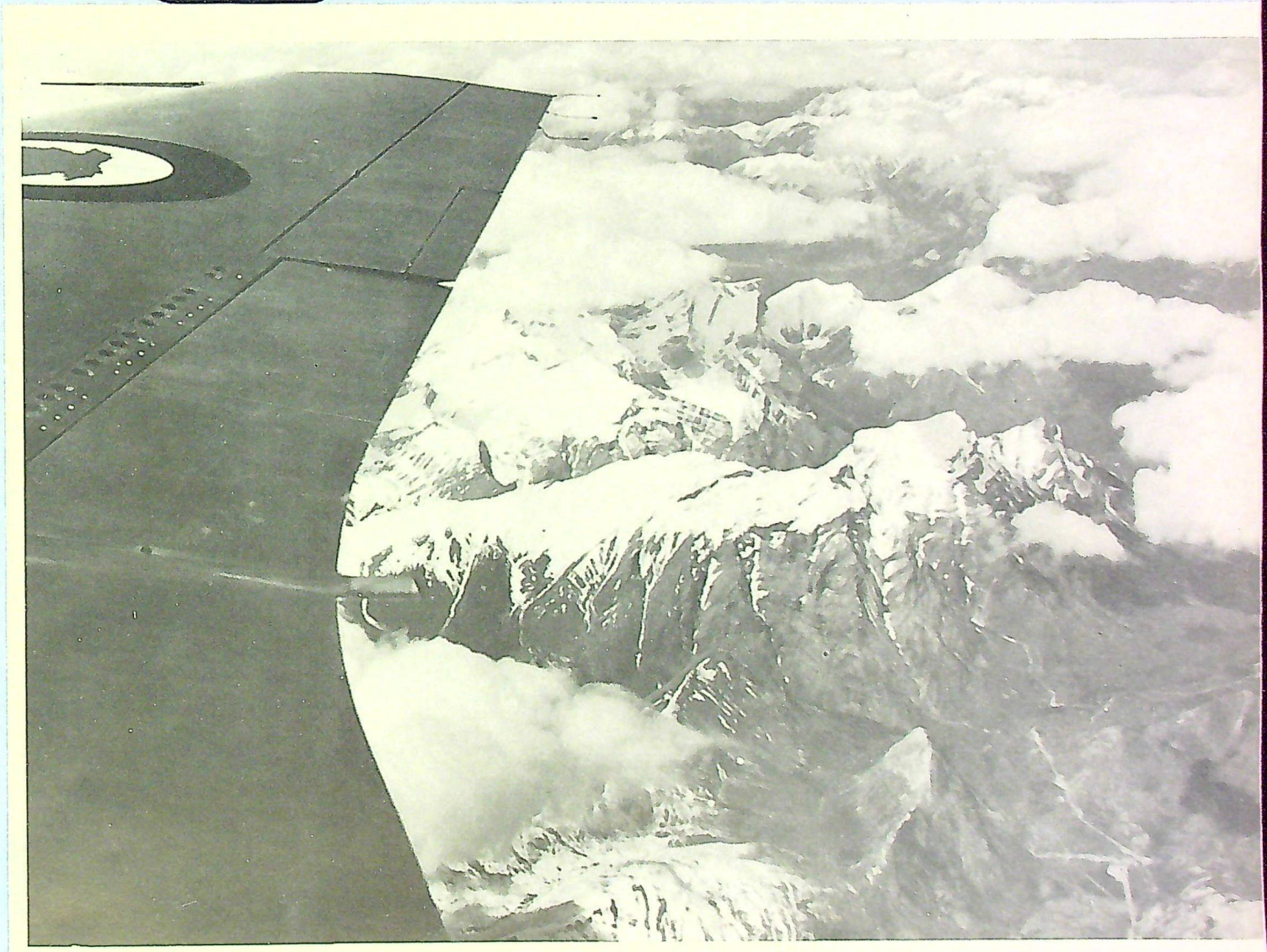
OCTOBER 1953



ROYAL CANADIAN AIR FORCE

The CROUNDEL

Issued on the authority of
THE CHIEF OF THE AIR STAFF
Royal Canadian Air Force

Vol. 5, No. 9

OCTOBER 1953

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This Month's Cover

The Canadian Rockies as they appeared to passengers of the R.C.A.F.'s first Comet, which was sent on a "shakedown flight" across Canada soon after its arrival at R.C.A.F. Station Uplands. On the westward flight, stops were made at Toronto, Winnipeg, Saskatoon, Edmonton, Calgary, and Vancouver. On the return flight, the Comet clipped off the 1170 miles between Vancouver and Winnipeg in 2 hrs. 25 mins., a good two hours under the normal North Star time for the flight. From Winnipeg to Ottawa, she zipped along at a top ground speed of 565 m.p.h. to complete the day-and-a-half train-ride distance in 2 hrs. 10 mins. After a stop at Uplands, the Comet moved into Eastern Canada for flights to Moncton, N.B., St. Johns and Gander, Nfld., and back to Montreal. Now possessing two of these aircraft, the R.C.A.F. is the first air force to be making use of its own jet transports. Photograph of the servicing detachment that accompanied the above flight appears on page 35.

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

SGT. SHATTERPROOF SOUNDS THE TOCSIN

(Upon receiving our copy of the October issue of "Air Power"— formerly "The Royal Air Force Quarterly"— we turned, as usual, to the R.C.A.F. section of the magazine. Somewhat to our surprise, the first item that met our glance was a letter from Sgt. Shatterproof to "Air Power's" editor, Group Captain A. H. Stradling, O.B.E. Having digested its contents, we immediately wired the Group Captain for permission — which he was kind enough to grant — to reprint it in "The Roundel." For the benefit of those readers who have not lived for any length of time in the United Kingdom, we append a glossary of the less commonly known English terms which occur in Sgt. Shatterproof's letter.—EDITOR.)

Sir:

We Shatterproofs are not prayerful men. None the less, I pray that this letter may reach you before Messrs. Gale and Polden have set their mighty presses in motion. For, Sir, it may well be that England's last hope lies in you. It may well be that, while my report to the Home Secretary still lies becalmed in a Sargasso Sea of red tape, "Air Power" will sound the toscin that shall alert all England to the vipers within her bosom.

As for me, I seek no recognition for whatever part I may have played in the drama. It is enough that I shall have kept faith with Sgt. Snag. Even as I write, I seem to see his spirit rise up shining from the river bed where the Rozzers have no doubt cast his mangled remains. I seem to see him hoist aloft an astral tankard, and to hear his soldierly voice raised in a final commendation: "Not 'alf bad, me old cock sparrer! That'll learn the barskirts!"

But this is no time for sentiment. I must hurry on.

As you are almost certainly aware, I was present in London, during the coronation of Her Majesty, as ambassador without portfolio of the boys in the field. Though executive duties in the R.C.A.F. leave me small leisure for the perusal of newspapers, I am confident that "The Times" and "The Manchester Guardian" kept you fully informed of my public doings in your capital. Of my private activities, however, the world so far knows nothing.

I see you frown. "What," you ask yourself, "does the old wardog mean? Can it be that, dazzled by the tinsel of our metropolitan night-life, he abandoned himself to the tawdry pleasures of the flesh-pots? Can it be —"

No, Sir, it cannot. Even in his leisure moments, a Shatterproof never acts without purpose. The purpose that then motivated me was the tracking down of my old friend Sgt. Snag of the Royal Air Force, who (as I gathered from your letter of last May) was released on pension from the Service more than three years ago. It was my intention, should I succeed in locating him, to enlist his aid in preparing a *vade mecum* for the boys in the field; for, as I have mentioned on an earlier occasion, Snag's brief war-time sojourn in Canada opened a new chapter in the R.C.A.F.'s approach to the age-old problem of the Brass.

Applying techniques learned at the knee of my uncle Daggerboy Shatterproof, of Canada's Secret Service, I spent several evenings in following the

scent left by my old friend. Strong — indeed, almost overpowering — though it appeared to be at Air Ministry's Records Branch, from there on it faded with a rapidity that seemed almost to suggest deliberate self-effacement.

The trail, I soon found, led through many of the city's less conspicuous public houses — a circumstance which made my task more pleasurable and (thanks to my "CANADA" badges) considerably less expensive than it might otherwise have been. It was, in fact, as I stood by myself one night in the Saloon Bar of *The Fig and Firkin* that my quest reached its amazing climax.

We Shatterproofs have gone down in history as being more at home on the field of battle than in the lists of love. Our achievements in war have, to a great extent, overshadowed our successes in the boudoir. When leftist historians, for example, applaud my ancestor Shun-Dalliance Shatterproof for having disembowelled a dozen or so of the landed gentry at the Battle of Naseby, they tend to overlook the fact that his nickname among the local milkmaids was "Bind-Him-With-Links-of Iron." Therefore, Sir, it need occasion you no surprise that, at the moment my story opens, I was engaging in a little polished repartee with Rosie, *The Fig and Firkin*'s buxom barmaid. To be specific, I had just uttered some urbane comment (as any red-blooded Canadian ambassador would have done) upon the superb modelling of her corsetry.

Rosie glanced down the counter to make sure that its other occupants were not listening. Then:

"You Canadians!" she said. "You ain't 'alf got a nerve! That sort o' talk may be all right in your 'eathen iggle-oos, but won't get you nowhere with we English ladies.— Besides," she added, lowering her gaze, " 'ow d'you know they *are* corsets?"

I explained to her that familiarity with internal affairs was the hallmark of the trained diplomat — "though we are," I admitted, "always ready to learn more."

Her eyes widened.

"Talk abaht brass!" she exclaimed. (I winced.) "Never 'eard the like of it in all my puff, I 'aven't Why, I don't 'ardly know you!" She paused and peered up at the clock. "But if you like to —"

Her gaze went past me, and she stopped. Then she deftly patted her hair and turned to a man who had just approached the counter. She flashed him a golden smile.

"Good evening, Major," she said. "And wot'll it be to-night?"

"Ah, good evening, Miss Flowerdew. Lovelier than ever, I see. Well, now, I think a nice glass of port . . . "

A Shatterproof, Sir, is not easily knocked down with a feather, but it would have taken no heavier bludgeon to prostrate me at that moment. For, though the racy accent was lacking, the voice that had replied was the voice of Sgt. Snag!

I leaned forward around my neighbours to get a clearer view of the speaker. Sure enough, it was Snag. Instead of the weathered uniform I remembered, he now wore a conservative grey suit, with an old-school tie and a black homburg hat. Over his arm there hung a malacca walking-stick.

Before I could hail him, he caught sight of me in the mirror behind the bar. Instant recognition dawned in his eyes, but the next moment he touched his finger briefly to his lips and indicated by a slight movement of his head that I should step back from the counter. I did so; and presently he joined me at a table against the wall.

He grasped my hand warmly.

"Strike me pink!" he breathed, in the rich idiom of my recollections. "If it ain't me old cock sparrer Shatterproof! What on earth are you doin' over 'ere?" He broke off and glanced about him carefully. "But for Gawd's sake don't mention my name. I'm Major Orpington now, late of the Buffs."

The discipline of a lifetime asserted itself. I stood up.

"May I be the first of your old friends to congratulate you, Sir?" I said.

He gazed at me in astonishment. Then:

" 'Struth!" he chuckled. "Still the same old card, eh? Come orf it! I'm a major — well, for perfessional reasons." He winked and clinked his glass against mine. "Can't live on a pension these days, y'know. Mud in yer eye, mate!"

"Professional reasons?" I echoed. "You mean"

— I lowered my voice to a whisper "— Intelligence work?"

He hesitated, and grinned.

"You might call it that," he said. "Operation Confidence. You know — oil wells and teak concessions in the Gilberts." He nudged me, and winked again.

Accustomed as I am to being the repository of State secrets, I was nevertheless deeply touched by Snag's trust in me. I lifted my glass.

"Sergeant Snag — that is, Major Orpington — I salute you. England's secrets are safe with me. Per Ardua ad Astra!"

A peculiar expression crossed his face. It was consummate acting. Had I not been in the know, I would have sworn he was puzzled by my remark. I began to understand why Her Majesty had selected Snag for such perilous work, for an Operation upon which the safety of England's supply of raw materials evidently depended. Well could I understand his frequent glances towards *The Fig and Firkin's* entrance. Every step the man took was probably dogged by the agents of rival powers. Yet casually he talked on.

"How're all the boys back in Canada?— includin' me old pal Gallstone."

"Fine, Major," I assured him. "But why don't we adjourn to my hotel room? In your line of work, you might be safer there."

He considered the suggestion, then nodded.

"You may be right, at that. Somehow or other the Rozzers got on me trail this mornin' and I've been dodgin' 'em all day. I —"

I stopped him.

"The Rozzers!" I repeated, incredulously. "You mean —?"

"I do, old cock. And they're pretty rough on us chaps these days. Fair skin us alive when they catch us. Pretty 'ard to watch out for 'em sometimes, too, wot with all the disguises they use."

The Rozzers! New though the term was to me, I had no difficulty in knowing what it meant. Even now, like the wolves of their native steppes, they might be hunting Snag through the dark labyrinth of London's side-streets, ready to drag him off to their underground hide-out for questioning with blow-torch and knout.

"But," continued my imperturbable friend, "let's 'ave one more before we go. Wot'll it be? I'll —"

He directed a precautionary glance at the entrance — and froze.

"Cripes!" he said. "The Rozzers! — Cheerio, old cock! Give the boys my love."

With that he slipped hurriedly away and vanished through a door marked "GENTLEMEN." Never, I reflected as I turned to face the enemy, did a hero disappear through a more appropriately labelled exit.

They were advancing purposefully towards me, two of them, dressed in perfect imitations of policemen's uniforms. I could hardly refrain from a grudging admiration. Even their plantigrade gait was undistinguishable from a genuine constable's. While one of them followed Snag through the door, the other took up a position by my table, hands behind his back, frowning speculatively down upon me. The other occupants of the bar, including Rosie, watched us with detached British curiosity. To them, this was merely a routine "pinch." Little were they aware of the stark horror that underlay the scene.

After a few moments, the second Rozzer returned.

"He got away through the window, Bert," he said. "But it don't matter. Jenkins'll catch 'im when he comes out of the alley." He turned to me. "And now, Sergeant, do you 'appen to know who

that man is?"

Slowly I stood to my feet.

"My name is Shatterproof, my rank is that of Sergeant, and my number is 666. I am not called upon to tell you more. Nor am I deluded by those uniforms. You are Rozzers."

They exchanged glances.

"That's right, mate," agreed the one named Bert. "But you still 'aven't answered the question."

I looked him straight in the eyes.

"I have not, Rozzer. And all the red-hot pincers in the Kremlin will not drag one word from these lips. Furthermore, I claim diplomatic immunity."

The taller Rozzer lifted his helmet and scratched his head. Finally:

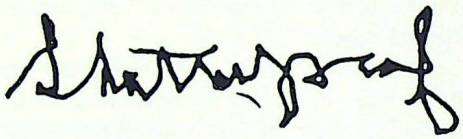
"Come on, Bert," he said. "This chap's just a Canadian Air Force bloke over for the Coronation. I saw a lot of 'em in the parade." He lowered his voice to interpolate something — presumably in Russian — that sounded like "Corked-as-a-newt-'e-is, too."

They turned about and, with a "'Night, Miss" to Rosie and a "Sorry to 'ave troubled you, gents" to the room at large, marched out of the bar, back to their dreadful work.

Swiftly I considered my course of action. Personally, I was safe, rescued by my presence of mind and undaunted demeanour; but, somewhere in the night outside, my old friend Snag was already being led off to torment unspeakable. Should I arouse the peaceful citizenry about me, and form a posse for his rescue? Or should I observe the time-honoured tradition which demands that a nation disown its secret agents when they are caught?

In the end, Sir, tradition triumphed. I ordered another pint, drained it, and returned to my hotel, where I spent the night writing a report to your Home Secretary. I mailed it in the morning, before our aircraft took off on the return trip to Canada, but so far I have received no reply.

The fate of England, Sir, now rests with you.



GLOSSARY

Old cock sparrer — Term of endearment used by Englishmen of the old school, without any connotation of age. Cf. "old horse," "old bird," etc.

Barskit — Colloquial euphemism commonly employed in uninhibited conversation.

Firkin — A small cask.

Barmaid — A lady (and *always* a lady) who ministers to the needs of the patrons of a public house. Barmaids are usually recognizable (*a*) by their blonde hair, (*b*) by the amount of gold in their teeth, and (*c*) by the generosity of their busts. They do not, as popularly supposed, eat their young.

Brass — Bold impertinence (civilian usage).

Puff — Life (Midland dialect).

Rozzer — Until reading the old wardog's letter, we had always construed this word to mean "policeman."

Bloke — Male representative, of any nationality and usually of adult years, of the genus *homo*.

Corked-as-a-newt — Possibly a Slavic phrase, as Shatterproof suggests, but bearing a marked similarity to the English expression "Corked as a newt" (i.e. intoxicated).

Pioneers of Peace

By Marshal of the Royal Air Force the Viscount Trenchard, G.C.B., O.M., G.C.V.O., D.S.O.

*(The following broadcast was given in England by Lord Trenchard on the eve of the Royal Air Force Review of July 15th. Although it deals exclusively with the R.A.F., it contains a great deal that we of the R.C.A.F. would do well to read carefully and ponder; for it was spoken by the man who has perhaps done more than any other single individual to develop the conception of air power that we have today. It was by Lord Trenchard, who is now in his eighty-first year, that the first independent air force in the world, the Royal Air Force, was originally formed and commanded. The photograph that appears below is an informal snapshot taken by Air Commodore A. P. Revington C.B., C.B.E., Senior Air Liaison Officer for the U.K., on the occasion of Lord Trenchard's visit to Winnipeg in April 1952 to present wings to graduates of No. 2 Air Navigation School.—*EDITOR.)

Lord Trenchard.

PIONEERS OF PEACE

TOMORROW the Royal Air Force will be reviewed by Her Majesty the Queen. It is the first time the youngest of Her Majesty's Services has been thus honoured with a Coronation Review.

Ever since it first soared into the air it has had strong and intimate links with the Royal House. It was formed in the reign of Her Majesty's grandfather, and her father was an able and beloved member in its early days. More recently, Her Majesty's husband, the Duke of Edinburgh, has won his wings, and is becoming known in the Air Force as what is called "a born pilot."

The Royal Air Force will bear itself proudly tomorrow. All of us, I think, are proud of this vigorous young force, and the Royal Air Force is proud of itself.

That this is so is natural and right. Its history is short as yet, but already it contains many glorious pages. It is essential that the Royal Air Force should have pride in itself, if it is to fulfil its primary function of safeguarding the peace of the world and the safety of the British Commonwealth. Only if it is efficient and strong, and known

to be efficient and strong, will it keep the peace of the world.

Tomorrow there will be 300 aircraft on the ground, and over 600 will fly past the Queen — only a sample of the force strong for peace and security. Some of the pilots will be flying past their Queen at speeds of more than 600 miles an hour.

The Royal Air Force was founded thirty-five years ago, before that earlier harsh struggle, the 1914-18 war, ended in victory. It was on April 1st, 1918, that it began its own vigorous existence through marriage of the Royal Flying Corps and the Royal Naval Air Service.

Fierce debate preceded its birth, and still fiercer debate followed its birth. Should the air be handed to the Royal Navy, with its great traditions, knowledge, experience, popularity, prestige, power? Or to the Army, with its proud and glorious record? Or should it be a brand new Service on its own account?

The decision was — a new Service.

There can be no shadow of doubt that the verdict of history will be that the decision was right. Practically the whole world has paid us the compliment of copying us. Even our ranks and uniform have been adopted by other lands.

Remember, if the decision was right then, it is doubly right now, with the weapons we now have. Air power is not local and specialized. It can reach out and strike anywhere and at any time. The air is indivisible.

The new force had to be built up out of nothing. How was it done? Then, as now, men counted more than machines. As British character had made the British sailor and soldier, so British character would give us airmen.

The men who made the Air Force were called to perhaps the greatest adventure of all time. They were grappling with something entirely new; there were no precedents to guide them — or bind them. They were pioneers, not tied to anything old. That fact gave the new force its spirit, which still endures.

The men of the Royal Air Force remain pioneers, though their function has changed. Their force was born in war and they fought as they learned. Now they are pioneers to keep the peace.

How were those early airmen selected? A young soldier who rode well — a young yachtsman who loved sailing — was chosen for the air. The linguist, scholar, scientist, idealist, the crank and the adventurer, all were roped in. So it was that the new force secured a rich diversity of talent.

Those early airmen have had a long line of worthy successors, of many different types, but all inheritors of their tradition of steadfast courage, as the last war so amply proved.

Let me quote some words written thirty years ago by Sir Walter Raleigh in the History of the War. He wrote:

"The Air Service still flourishes; its health depends on a secret elixir of immortality, which enables a body to repair its severest losses. The name of this elixir is tradition, and the greatest of all the achievements of the Air Service is that, in a very few years, under the hammer of war, it has fashioned and welded its tradition, and has made it sure. Critics who speak of what they have not felt and do not know have sometimes blamed the Air Service because, being young, it has not the decorum of age. The Latin poet said that it is decorus to die for one's country; in that decorum the Service is perfectly instructed."

The elixir Sir Walter speaks of is an elixir not only of immortality but of youth. The tradition of the Royal Air Force is to be young in ideas, ready to take risks, ready to master new weapons and new tasks.

We wanted our flag or ensign, of course. That provoked much discussion. Then somebody had a brainwave. Why not use the red, white and blue rings that were put on aircraft in 1914 for recognition purposes? Those rings were the colours our airmen had fought under, and been killed under.

The King was approached, and asked if the now familiar red, white and blue circles, against a sky-blue background, could not be the flag of the Royal Air Force. The King approved.

Remember this about the war in the air. It is one thing to be brave on a battlefield, or in a ship with your friends and comrades all round you. It is quite another when you ascend into the air alone. Ninety per cent of the courage of the

ordinary man — not the courage of the V.C. man, but your courage and mine — comes from not wanting to let your comrades down or to be seen to be afraid. When you are in the air alone, it is very easy to think you hear an engine failing, or convince yourself of some other reason for not pressing on.

But the new warriors were every bit as brave as their comrades on the ground, or sailing the sea. They still are. The pioneers were driven, cajoled, helped, comforted and — killed. And in the last war our crews went in magnificently, flying low over the most heavily defended positions. They had the decorum the historian speaks of.

The airman needs to take his wits and his skill of hand to the battle, as well as his courage. Great skill and great care are needed in an airman. But that is not the same thing as always playing safe.

The enterprise shown by those pilots who flew the Atlantic thirty and forty years ago is still in the Air Force, and the enterprise now shown is still a great asset,— and we all take off our hats to the chief young man of this country, the Duke of Edinburgh, for the enterprise he has shown already.

If you will forgive a personal note, I cannot help remembering how, when we had accidents in the Royal Air Force and pilots showed dash and enterprise — not always according to rules, I impressed on Mr. Baldwin, then Prime Minister, that if I corrected all the faults, I would ruin the R.A.F.

Mr. Baldwin repeated that, and it still holds good.

To begin with, the Royal Flying Corps fought with the Army — across the trenches. All the fighting was over the enemy side of the line. When, occasionally, a German machine was brought down on our side of the line, the question was asked: what was it doing on our side? The attack was carried to the enemy — all the time.

There is no absolute defence against aircraft, but the only possibility of defence against aircraft is aircraft.

I am not speaking of guided missiles. These things will come in the years ahead. But let us not, in looking too far into the future, fail to think of the present. If we do, there will be no future.

It was in the early days, when air first came, that the principles of air power were born. They were not invented — they were born. We had not then got the tools that would carry them out. In those days one of the chief factors, if not the most important, was that distance dominated air power.

Now air power has dominated distance as far as this planet is concerned. That is the great change. Neither the fact nor its significance has yet been widely enough realised or fully appreciated.

It ought to alter all our conceptions of warfare. In 1914-18 we spent lives on gaining a few hundred yards of ground, to occupy a hill, or straighten a salient. In 1939-45 we fought for bases, airfields, and ports, strategic points of all kinds. We must always be clear what is the objective. There is no sense in sending armadas to capture, occupy and defend distant bases if you can achieve what you need from the bases you have already. The object is to bring pressure to bear on the enemy. Modern aircraft can range a very long way. Our conceptions of warfare must be to be ready to strike quickly, and directly — and not to put all our efforts into organizing a system of bases and communications from which we can eventually grapple at short range.

We take longer than we ought about changing our conceptions. To be given these wonderful new tools is not enough. We must know how to use them. Our spirit must match that of the men who produce them, and our leaders must always be trying to find new ways to use them.

The unhappy truth is that air power is not being used as it should be. In disaster, yes, we are forced to use it. When the sea rolls across East Anglia and the Low Countries, aircraft are there, playing an indispensable part in rescue and in the building-up of barriers. When an earthquake devastates some other part of the globe, doctors, medical supplies and other stores are rushed in by aeroplane.

But let us also use the air positively, let us make fuller use of it in the everyday business of life.

Why do we not use the Air Force far more for showing the British Flag, as was done in that wonderful flight of the Canberra squadron last year across the Atlantic and round South America?

24,000 miles — and 10 foreign countries visited.

Even now there are more people crossing the Atlantic by air than travel in the "Queens" and the other great ships. But we are only using the air for the same kind of travelling as we have been used to do by land or by sea. We are not using it to make our administration more mobile, more flexible, or more efficient.

Remember what I said about the elixir of youth, and freshness of ideas. In the early days of flying the young were given their chance, and their heads. We must go on giving the young their chance.

As a new Service the Royal Air Force was not encumbered with too much red tape. Its spirit was given opportunity to flourish. That old spirit is just as much needed today — it must never be damped down.

Our young men must shoulder responsibility early in life. I remember the case in the first Great War when a General called up a young man on the telephone and asked him about a particular operation and what he was going to do. When the young officer told him, and the General said he could not support him, the young man said: "I am not asking for your support, Sir, I was only giving you information. I hope after I have done it, you will support me." That is what we want.

In the air, initiative remains as necessary today as ever it was. With all the powerful machines and devices, it is still the individual that counts. The men in the Royal Air Force today, like those in the first days, are not all cast in the same mould. Now, as then, there is a rich diversity of talent.

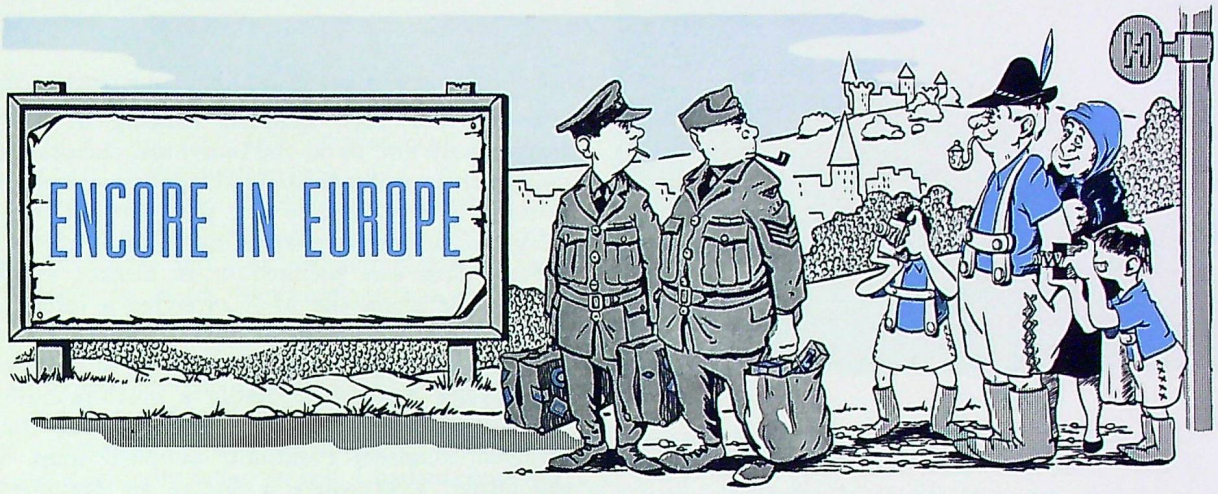
There are some things they have in common. They are all pioneers, exploring and mastering new tracts of country, not ploughing the old fields. They are also men who know what they are doing. They are keeping the peace. They know what would happen if war should come. They have seen the power of the air increase till it dominates distance and dominates strategy; and they know what are the defences we most need to prevent war coming. They are believers in quality, and not in numbers. The machines our scientists, designers and producers give us, in hands that can use them, can be a match for superior numbers, as they were in 1940.

There is no need for me to refer to the Royal Air Force in the last war. Its tremendous contribution to victory, and its offensive efforts in those days, are well known and in the memory of all of you. I say now that the Royal Air Force has the opportunity to help prevent war coming, if it is strong and efficient, believes in itself, and is proud of itself. It will then win, whatever may come.

Good flying to you all, tomorrow and for all time.

ADDENDUM

Apologies are extended to Flt. Lt. B. F. Dunster, D.F.C., of No 2 A.N.S., Winnipeg, and also to Wally Halder, for omission of their names beneath the photograph on page 41 of our July-August issue. They appear, respectively, third and eighth from the left in the back row.



By W.O.1 R. A. Tracy, Central Art Section, A.F.H.Q.

(In May of last year we published Warrant Officer Tracy's account of a brief trip he made to Japan. In this issue he describes some of his leisure-hour doings during his recent visit to the United Kingdom and Europe. To quote his own words: "Everyone's so convinced a Service artist never does any real work that it would be a pity to disillusion them."—EDITOR.)

SHOULD the Perceptive Reader notice an undercurrent of frustration running through the following narrative, I would ask him to bear with me. If, as well as a Perceptive Reader, he is also a Constant Reader, he may recall that my visit to Tokyo in the spring of 1952 was somewhat bedevilled by the presence of Sgt. Shatterproof.

Well, it has happened again. Detailed to do a bit of work in the U.K. and on the Continent during the Coronation celebrations, I arrived at Dorval airport just in time to find the old warrior pontificating to a group of reporters in the waiting-room.

As I approached him, I heard:

"... and we hope to make the journey, gentlemen, in about twenty-one hours. You may add, if you care to, that I am taking with me Warrant Officer Tracy, a promising young cartoonist whom I am grooming in the more international aspects of his art. He is —"

At that moment he caught sight of me. He removed his pipe and tapped out the ashes against his palm with an air of finality.

"But I think," he said, "that it might be advisable for me to say no more at this time. You will doubtless be notified of further developments in my mission through official channels. I bid you good-day, gentlemen."

With a gracious nod he dismissed them and walked over to where I stood.

"So, Sir," he greeted me, "once again we collaborate in the wider sphere."

"Like hell we do!" I said. Then curiosity overcame my baffled rage.

"How in Heaven's name, Shatterproof, do you manage to wangle these trips?"

He smiled a secret smile, tapped the side of his nose with a knowing pipe-stem, and took me gently by the elbow.

"Shall we emplane, Sir?"

A Sabre buzzed us over England.

* * *

The flight to North Luffenham was comparatively uneventful, if not any too comfortable. I found myself seated on a crate of eggs that had been wedged between an F-86 nose-wheel assembly and other impedimenta, but at least I had the satisfaction of watching Shatterproof squirm on *his* seat, which was the one with the metal bar across its centre under the canvas. Several times I declined his gracious offer to exchange places so as to allow me (as he put it) "to get a better look at the shipping-lanes of the North Atlantic." We were both considerably relieved when the low rolling hills of Rutlandshire slid below us and we were touching down at North Luffenham.

I am not going to describe our brief day in North Luffenham and its purlieus, because Flying Officer Ruch did so quite adequately in his article, "Glimpses of the Half-Remembered," which appeared in the last issue. Nor, to tell the truth, had I the same opportunity as he to study the local folk-lore. Our stay there was so brief that we did not manage to scrape up even a nodding acquaintance with the *Horse and Pannier* or the *Fox and Hounds*. But the day was not entirely wasted. Before we hit the sack that night, we had pushed on to London, and had even managed to squeeze in a night-cap or so before the landlord's "Time, gentlemen, please!" had twice knelled in our ears.

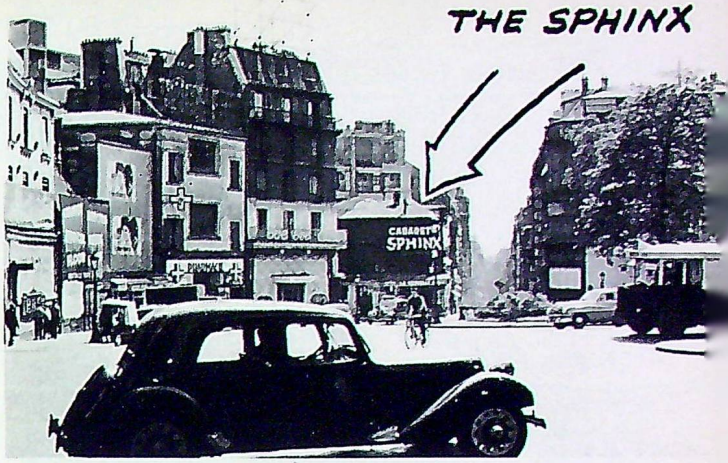
A great deal has been written describing London's preparations for the crowning of Queen Elizabeth, so I don't propose to add much to it. Flood-lit buildings, lanterns hanging in every leafy square and park, the individual themes and colour schemes of each street along the processional route — all combined to give the great old city a fairyland atmosphere after dark. In Piccadilly Circus, Eros was enclosed in an elegant gilded cage, while along the Mall extended a series of shining triumphal arches. It had even been planned to enlist the co-operation of the feathered denizens of Berkeley Square, reputedly a much-favoured haunt of nightingales; but rumour has it that artificial songsters eventually supplied most of the music. Everywhere a festive air prevailed. Even my iron-souled companion, I think, was stirred by unwonted emotion as we watched the countless thousands who had come flocking from the four corners of the world to be present at the crowning of the British Commonwealth's Queen.

* * *

As the poet says, "Fair stood the wind for France"; and so Whitsuntide week-end found us boarding the boat at Folkestone, bound for Calais. The crowds, however, stayed with us. Half the school-children of England seemed to be crossing the Channel on their way to summer vacations in Austria, Germany, or Italy. Recklessly-brandished ice-creams were jabbed in our faces, chocolate-smeared hands momently endangered our natty tropical worsteds.

Urged solely by thoughts of self-preservation, we battled through to the boat's Saloon Bar, only to find that the young horrors had infiltrated even into those normally sacrosanct precincts. I spent the short voyage cowering in the corner and nursing a precarious ale — while Shatterproof muttered down his pipe and scrubbed dejectedly at a tutti-frutti stain on his Q.R. (Air) . . .

Encouragement of native industries (I gathered from the old wardog) has ever been a policy of the Shatterproofs. Accordingly, when at last we were rolling down in the train through North-west France, he disclosed the fact that he had purchased a quantity of *vin blanc* at a station-stop in Abbeville. As we roared along beside the Somme, nostalgia took him over. From Amiens to Clermont he gave myself and the other occupants of the



The "Sphinx."

compartment a rendition of "Madamoiselle from Armetières" that brought floods of tears to the eyes of a quiet man above whose head a violin case rested in the luggage-rack.

It was dusk when the slender landmark of the Eiffel Tower poked its finger into the sky on our starboard side, and soon we were clattering into the Gare du Nord. Shatterproof was evidently still in an emotional mix-up, for he kept confusing our taxi-driver by insisting that we had reservations at the Château Frontenac. It was only with the greatest difficulty I succeeded in convincing the unhappy driver that we were booked in at the Royal York; and when at last I had managed to locate the hotel's address in my hip-pocket, he gave a cry of "Voilà!", made a U-turn, and finally deposited us at a roach-trap called "Le Grand," right across the street from our starting-point at the station.

"Le Grand" proved to be a fascinating hostelry. It had, I would guess, been thrown together at about the time of Napoleon's coronation in 1804, and little or no improvements had been made since. The desk clerk, who bore a striking resemblance to Dracula, took one look at our identification cards and decided that we should pay in advance. Somehow I had the feeling that we were about as welcome as a crack in a glass eye. The "boy" who took our bags up in the rickety elevator had been an old man before the ink was dry on Shatterproof's regimental number. (None the less, I had to agree with him when he returned Shatterproof's three-franc tip with the remark that such extravagence was out of keeping with the policy of the hotel.) The room itself was a delight, tastefully decorated in green- and blue-mould wallpaper, with matching coverlets of potato-sacking on the twin beds. The window, cunningly concealed behind a year-old evening edition of "Le Paris Soir," opened on to a rusted balcony which overlooked a courtyard and several other rooms of similar *décor*. During our brief stay in Paris, I never tired of standing by that window, with the lamp turned low, and gazing out over the roof-tops at the Eiffel Tower, the bluffs of Montmartre, the unshaded window of the two American college girls in the opposite apartment . . .

We made the most of our three days in the capital, revisiting old haunts, taking pictures, lunching with R.C.A.F. friends, and — well, just living. The weather was decidedly warm in the city, so I spent the Sunday afternoon atop the Eiffel Tower. Shatterproof, however, refused to accompany me, as the thought of climbing anything higher than a bar stool makes him dizzy. He therefore wandered off to do a little sight-seeing on his own. I gathered later that he had spent the afternoon in studying Egyptology — presumably at some museum; for, when he returned to our hotel that evening, I was subjected to a somewhat incomprehensible diatribe on the subject of the decline of culture in Europe. He seemed especially put out by the shocking — or as he expressed it, the "naked"— fact that the Sphinx had descended to the level of a second-rate cabaret performer. I confess that I was somewhat puzzled by his remarks, since I was under the firm impression that the Sphinx was still smiling inscrutably somewhere.

Montmartre.

He had also purchased a few souvenirs and presents for his friends in Canada. Notable among them were two bottles of purple-coloured perfume, labelled "*Désir*," and several items of negligible black underwear that I prefer not to discuss in "The Roundel." These, it appeared, were for Miss Clasper.

* * *

Two hundred and eighty kilometres to the east of Paris, stands Metz, where the R.C.A.F. Air Division's Headquarters are located. Thither (fortified with bread, cheese, and Shatterproof's *vin blanc*) we departed late on Monday afternoon. The R.C.A.F. Movements people had done us proud, and we had a compartment to ourselves on a clean, fast train. While it was still light. I gazed out the window into the deepening dusk, and I watched — not without a feeling of melancholy — as the shadows fell on Château Thierry and as the lights came on in Epernay and Châlons. Familiar names, yet names of places that have witnessed too many disasters in their lifetimes and seem somehow to have lost their ability to smile . .

Midnight was not far off by the time we had checked into our hotel in Metz, and I was all for going to bed right away. Not so Shatterproof. He had run into a Mobile Equipment party at the bar downstairs, and, just as I was crawling into the pit, he came wheezing into the room to invite me down. Several of the celebrants were, apparently, old friends of mine, and nothing would do but that Shatterproof and I join in. Sighing, I put on my clothes again and we descended to the bar. A party was indeed in progress. Those who hadn't been old friends earlier, rapidly developed into such; and the first flush of dawn was in the east before we made our gallant way to bed.

We were up betimes, however, and before long we found ourselves at the Château de Mercy, which houses the H.Q. Several miles from Metz, it overlooks the quiet vineyards of the Moselle Valley. Here, in this old and magnificent building, are handled the problems pertaining to the various needs of the Canadian Wings and their squadrons based in France and Germany.

To the people of Metz, a fortified city of some 10,000 inhabitants, men in uniform have long since ceased to be a novelty. The legions of ancient Rome made their presence known there some twenty centuries ago, when it was known as Divodurum. These stalwarts it was who subsequently rechristened it Mediomatrica, of which the present name is a contraction.

Then, in the fifth century, Attila made himself rather unpopular with the townspeople by sacking the place *en route* to his shellacking at Châlons. The armies of France and Germany have often swapped punches within the shadows of its fortifications, and when Germany picked up the marbles after the Franco-Prussian fracas in 1871, Metz was included. Forty-three years later another hassle broke out, and on 19 November 1918, Marshal Pétain's Tenth Army entered the city and Metz was united with France. The Second World War saw German occupation of the war-weary city until 22 November 1944, when Patton's Third Army arrived.

On the whole, therefore, it is not surprising that the good burghers of Metz didn't panic too much over the loose threads on Shatterproof's tunic or the paper-clip on his top button. After all, they'd probably seen lots of Caesar's legionaries with unpolished sandals.

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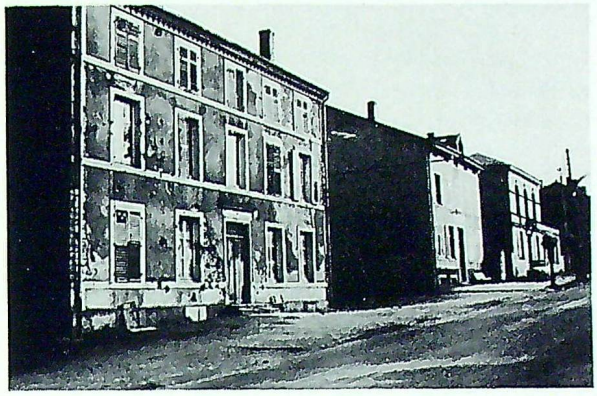
A forty-five minute train ride was all that was required to take us from Metz to Falquemont, the nearest railway station to Gros Tenquin, where No. 2 Fighter Wing is based.



Faulquemont.

The first thing that strikes the visitor about Gros Tenquin is the maze of overhead heating-pipes that join the shining aluminum buildings. We were told that the first winter at Gros Tenquin was something less than idyllic, what with mud, leaky buildings, and cold. It had dried up considerably before our visit in May but it took no stretch of imagination to visualize the quagmire that must have greeted the first arrivals.

We found the sergeants' mess in the process of renovation, but that fact did not deter Shatterproof — or me, I regret to say — from making adequate use of its facilities in the pleasant company of some of its regular members . . .

At Gros Tenquin we managed to scrounge a ride to No. 3 Fighter Wing's base at Zweibrücken. Personally, I found the journey through the rolling farm-lands of Alsace-Lorraine very agreeable; but it was otherwise with Shatterproof. After a few miles of the twisting road, with its endless vistas of farm houses and neat manure piles, he turned a greenish yellow; and he finished the trip in a grim and pallid silence.

The R.C.A.F. station is roughly three miles from the little town, which is situated amid the gentle hills of the Saar frontier. Its site is on a high ridge in the old Siegfried Line. The buildings are all brand-new, and the station has its own cinema, hospital, and churches. Paved roads and new green lawns surround the one-storey stucco buildings.

Sports afternoon was the order of the day when we arrived, but I fear that, as soon as I had done what I had to do, the only sports-field on which we played a part was the spacious sergeants' mess — and the only part of the Tracy and Shatterproof musculatures which received any notable development were the right biceps. For Shatterproof and myself, indeed, the hospitality we encountered was beginning to prove itself something of an occupational hazard.

* * *

From Zweibrücken we flew back to England, where we landed at No. 30 A.M.B., Langar, Nottinghamshire. This Air Materiel Base, not far from the historic city of Nottingham, prides itself as being "the fountainhead and lifeline of the R.C.A.F. in Europe." Logistics and logistical support are its aim and purpose, and the reliable Bristol Freighters shuttle with calm efficiency back and forth between Langar and the continent.

The station is far from representing the ultimate in beauty, but despite the seasonal mud and the patched and re-patched roadways, the morale is high. Rumour has it that one Warrant Officer in the Accounts Section has even learned to laugh at the six-foot ditches that frequently place themselves in his path after sundown. It is said that, when he was tagged for the Ground Defence Course recently, he scoffed at the idea of such amateurishness, claiming that he already had

" . . . in the old Siegfried Line."

more time in the foxholes of Langar than anyone else on the station.

Doubtless they have had bigger and better farewell parties at the Langar Sergeant's Mess, but I'm sure that both Shatterproof and myself will never forget our send-off before we left for London and the Coronation. If any of my readers are ever in the vicinity of the Sergeant's Mess bar at No. 30 A.M.B., they will probably be invited to inspect the gleaming tankard that is Shatterproof's, suitably engraved. It is — as the old wardog will, at the drop of a participle, inform you — the only one of its kind in existence.

* * *

June the Second, nineteen fifty-three. This was it.

We were up and on our way to the Mall by 5 a.m., which is a pretty ghastly hour to be up even on Coronation Day. Through the cold wet drizzle of South-west London we elbowed our way along King's Road, past Sloane Square to St. James' Park, and by 5.30 we were being ushered to our seats in Stand 38.

The Mall was packed on both sides with staunch souls who had already been in position for a good many hours. Their high spirits, despite the chilly wet night they had spent, were contagious. By 6 a.m. the stands were full, and the long hours of waiting were relieved by the good-humoured kidding of the crowds. Every pearl-gray top hat, cycling messenger, or bemedalled American Air Force officer that passed, rated a round of applause, and they, in turn, would thank the kidders with doffed hats or mock salutes.

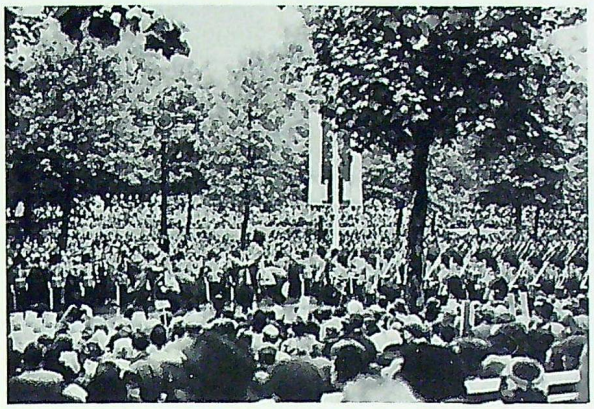
Anticipation was reaching its peak as the Brigade of Guards appeared to take up their street-lining positions; and when at long last they received the order to remove rain-capes, their red tunics and shimmering black bearskins suddenly transformed the whole length of the Mall.

At precisely 9.15 a.m. the carriage processions of the Colonial rulers and Prime Ministers left Buckingham Palace and began to pass us on their way to the Abbey. The Queen of Tonga, sharing a

The author at No. 30 A.M.B.

carriage with the Sultan of Kelantan, was among the first to pass, and they received a tremendous ovation; as also, a few moments later, did Sir Winston and Lady Churchill, who led the Prime Ministers' procession, which was escorted by the Fourth Queen's Own Huzzars.

Vociferous evidence that our stand contained practically no one but Canadians was given when



The Guards.

Prime Minister and Mrs. St. Laurent, escorted by three members of the R.C.M.P., drove by. Next came the carriage procession of the Princes and Princesses of the Blood Royal, and, at 10 a.m., the Queen Mother and Princess Margaret left Clarence House and proceeded down the Mall in their glass coach. At 10:26 a.m., the golden coach, bearing the Queen and the Duke of Edinburgh, left Buckingham Palace, rounded Victoria Monument, and swept past the cheering throngs, through Admiralty Arch, and on to Westminster Abbey.

Cold rain now began to fall once more, and once more the Guards donned their rain capes and the crowd settled down under their umbrellas or fashioned hats from their newspapers.

Shatterproof and I repaired to the canteen at the rear of the stands to partake of whatever refreshments were available. Tea, coffee and sandwiches were to be had, and although we had an ample supply of our own, it provided an opportunity to stretch our legs and get beneath the stands and out of the rain.

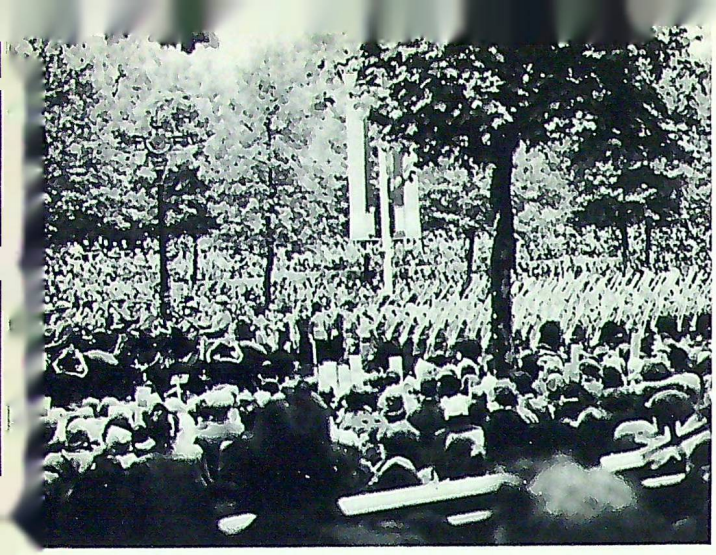
Loud-speakers carried the broadcast of the service in the Abbey to the crowds, now silent and reverent, in the streets, and each word spoken by those taking part in the ancient ceremony came to us with amazing clarity. The actual moment of the coronation was announced by the royal salute of forty-one guns fired in St. James' Park and another of sixty-two guns at the Tower of London. Then, at the conclusion of the service, the crowd again settled down to await patiently the return of the procession to Buckingham Palace.

* * *

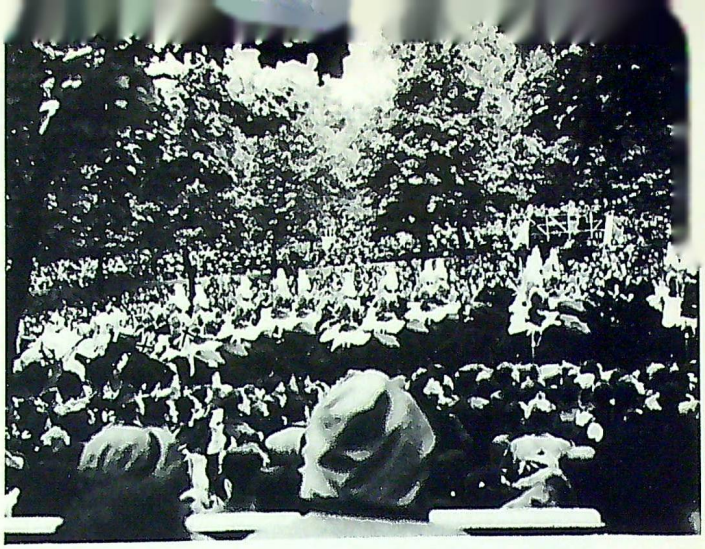
Shatterproof and I alternated between our seats in the stands and the shelter beneath, according as the sun broke through or the downpours threatened. I should have become suspicious of Shatterproof's thermos bottle long before I did, for, as the day wore on, he began to produce it from the pocket of his raincoat and to propose toasts to Her Majesty with ever-increasing frequency. But my suspicions were not confirmed until shortly before 3 p.m., when the procession returned.

"The Queen of Tonga . . . with the sultan of Kelantan"

Cheering and shouting at every unit or mounted escort that passed, he waved his little paper Canadian ensign with one hand while the other clutched his pipe and Q.R. (Air), pausing occasionally to quaff from the cup of his thermos bottle, which was gripped between his knees. Once I paused during my picture-taking and frantic changing of film to see him sitting in stunned silence, with his mouth agape, as four Air Vice-Marshals and an Air Marshal from the Air Ministry rode shakily by on horseback. Even my feeble quip that many of the R.A.F. brass were probably quite at home on quadrupeds after their experiences with Camels in the First World War,



The R.C.M.P. and the R.C.A.F. in the parade.

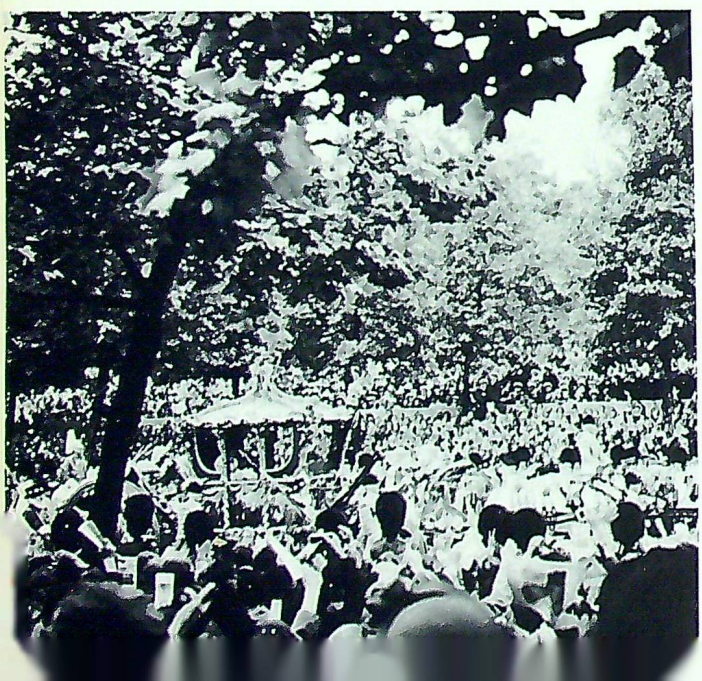


The Household Cavalry.

was lost on him; and I got the feeling that something had died within the old gladiator's breast.

He seemed to recover his poise bit by bit, however, as the splendid calvalcade continued to march by. The Armed Police of North Borneo, in particular, aroused his enthusiasm. He had, it seemed, a personal interest in them; for he poked me in the ribs with his pipe and managed to convey to me, above the roars of the crowd, that his uncle Long-Phang Shatterproof (of the Dyak branch of the family) had helped to organize the outfit a year or so before he was exiled to Sarawak on a trumped-up charge of cannibalism.

"the golden coach . . ."



His enthusiasm had reached its peak by the time the first of the Commonwealth contingents came abreast of us. At this point I had to pull him back into his seat and explain that, although the Canadian contingent would no doubt appreciate his applause, it would be better to wait until it appeared, as he had just mistaken the Pipers of the Brigade of Ghurkas for the R.C.A.F.'s W.D.s.

When eventually the Canadian contingent did come by, I must say that its performance was magnificent. I'm sure that every Canadian who watched it pass did so with an intense feeling of national pride.

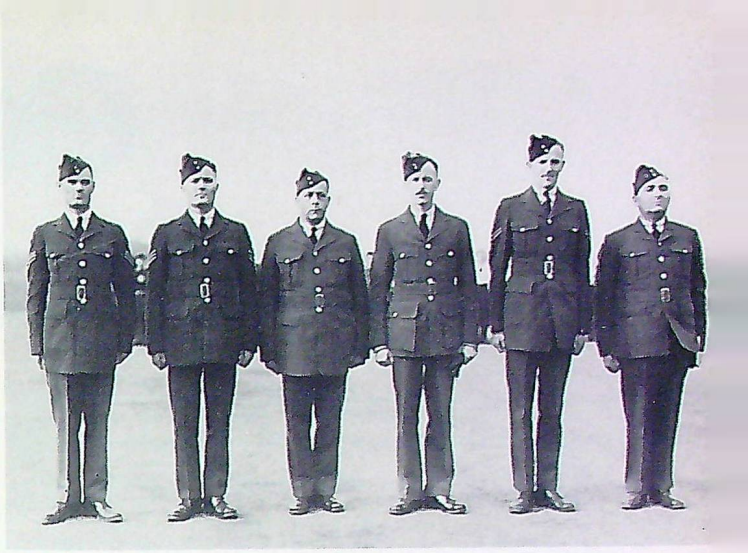
For approximately forty-five minutes, wave upon wave of mounted and marching troops passed before us in review, and when the huge gilded coach bearing our newly-crowned Queen came into view, the acclamation it received from the wildly-cheering throngs was deafening.

The sun had broken through and it was late afternoon before the last of the procession had disappeared around Victoria Monument and the Brigade of Guards had been marched away. The crowds left their stations on the sidewalks and in the stands, and surged up to the Palace gates for a glimpse of the Royal Party when it appeared on the Palace Balcony.

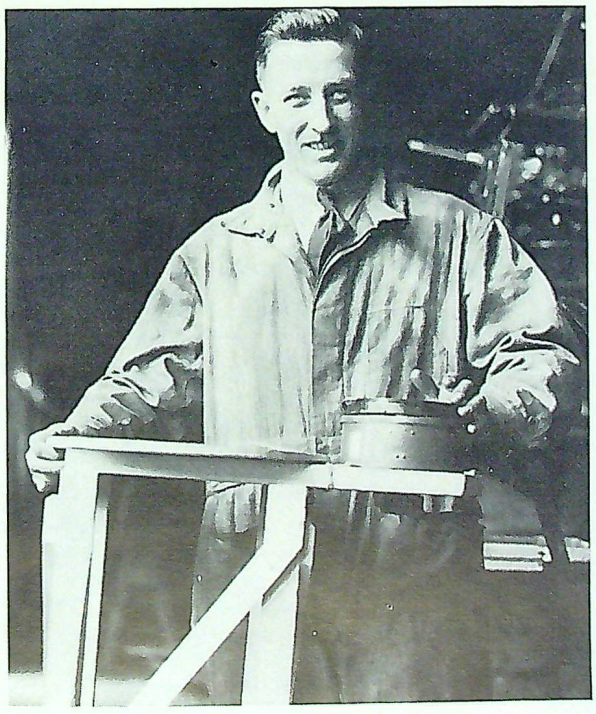
Shatterproof and I stayed in our seats rather than be trampled in the mob below us, and from there we saw the jets roar overhead as the fly-past swept mightily above us. After that, we picked up our thermos bottles and thoughtfully wended our way towards Piccadilly and the "Chez Moi."

Our visit was, virtually, over.

Pin-Points in the Past



In August 1939, when it was realized that the Second World War was both inevitable and imminent, recruits began to pour into the R.C.A.F. They came (since at that time there was no Manning Depot) to Rockcliffe, where they were indoctrinated, drilled, and generally put through their paces by a team of instructors selected from a variety of skilled trades. On completion of their course, most of them were posted to coastal squadrons in the Maritimes, and many of them were later commissioned as aircrew and distinguished themselves on operations. Shown in one of the accompanying photographs is the team that guided their first Service steps. Left to right: Sgt. W. Lawrence (W.O.1, released), Sgt. E. Bullis (W.O.2), W.O.2 W. Wilcox (Flt. Lt., retired), Flying Officer H. Pearce (Wing Cdr., M.B.E.), Cpl. J. Kirkham (Flt. Sgt.), Cpl. J. R. L. Schingh (Sqn. Ldr.)



Our other photograph shows Cpl. Stan Greene standing before the compass board and rectifier used on geodetic surveys in 1929, when the photograph was taken. Stan Greene, one of Canada's most remarkable wrestlers and judo experts, later became Group Captain S. A. Greene, M.B.E. He died last year, while C.O. of No. 6 Repair Depot, at Trenton.

Personnel Movements ★ ★ ★

OFFICERS: JUNE

G/C H. C. Ashdown, MBE — CJS Washington to RCAF Stn Clinton.
W/C E. L. Wurtele — RCAF Stn Toronto to AFHQ.

OFFICERS: JULY

W/C E. L. Baudoux, DSO, DFC — AFHQ to CEPE, CARDE, Valcartier.
S/L J. H. C. Boby — AFHQ to 2 ANS, Winnipeg.
S/L C. D. Bricker, DFC — 439 (F) Sqn, UK, to 1 PWS, MacDonald.
W/C W. J. Brodribb, MBE — AFHQ to AMCHQ, Ottawa.
S/L D. J. Bullock — 102 C&R Unit, Trenton, to RCAF Stn Portage la Prairie.
S/L T. A. Calow, BEM — RCAF Stn Rockcliffe toTCHQ, Trenton.
G/C R. A. Cameron — NDC, Kingston, to AFHQ.
S/L V. B. Carson — 1 PWS, MacDonald, to 3 (AW) OTU, North Bay.
S/L W. G. Chandler — RCAF Stn MacDonald to AMCHQ, Ottawa.
W/C W. B. Coates — AMCHQ, Ottawa, to CJS Washington.
S/L M. J. Cowie — AFHQ to 103 SAR Det, Torbay.
G/C G. H. Elms — AAFCE HQ to RCAF Stn Moose Jaw.
S/L R. F. Epps, DFC — 103 "R" Unit, Greenwood, to IAM, Toronto.
G/C E. H. Evans—NDC, Kingston, to RCAF Stn Saskatoon.
S/L F. G. Fellows — AFHQ to CJS Washington.
G/C P. A. Gilchrist, DFC — AFHQ to ADCHQ, St. Hubert.
W/C R. F. Gross — RCAF Stn Torbay to AFHQ.
S/L E. R. Heggtveit — 444 (F) Sqn, St. Hubert, to RCAF Stn St. Hubert.
S/L L. J. Hill — TCHQ, Trenton, to RCAF Stn Trenton.
W/C D. M. Holman — 1 Air Div HQ, France, to AMCHQ, Ottawa.
S/L C. Jackson, AFC — 25 AMB, Calgary, to CJS Washington.
S/L J. R. F. Johnson, DFC, AFC — 1 AFS, MacDonald, to 1 PWS, MacDonald.
W/C A. N. Le Cheminant — AMCHQ, Ottawa, to 2 FWgHQ, France.
G/C G. G. W. Lewis — CJS Washington to AMCHQ, Ottawa.
S/L J. MacKay, DFC — CJS Washington to 444 (F) Sqn, St. Hubert.
S/L D. R. G. McCallum — RCAF Stn Sea Island to 12 ADGpHQ, Vancouver.
S/L A. C. McKnight — AMCHQ, Ottawa, to RCAF Stn Edmonton.
S/L P. Patrick — 3 FWgHQ, Germany, to 4 FWgHQ, Germany.
S/L R. M. Porter — AFHQ to CJS London.
S/L S. Skinner, DFC — 121 C&R Flt, Sea Island, to RCAF Stn Sea Island.
S/L E. W. Smith — ADCHQ, St. Hubert, to AFHQ.
S/L C. N. Stanley — 404 (MR) Sqn, Greenwood, to 2 (M) OTU, Greenwood.
W/C R. I. Thomas, AFC — RCAF Stn Lachine to RCAF Stn Rockcliffe.
G/C W. Weiser, MBE, DFC — TCHQ, Trenton, to 2 FWgHQ, France.

OFFICERS: AUGUST

S/L O. C. Brown — CEPE, Uplands, to AFHQ.
S/L D. C. Bullock, DFC — 32 ACW Sqn, Foymount, to CJS Washington.
W/C N. Burden — 2 FTS, Gimli, to 3 AFS, Gimli.
G/C C. G. W. Chapman, DSO — AFHQ to RCAF Stn Greenwood.
G/C C. H. Cotton — RCAF Stn London to AFHQ.
W/C H. F. Darragh, AFC — 1 (F) OTU, Chatham, to 1 Air Div HQ, France.
S/L B. C. Denomy, DSO — CJS Washington to AFHQ.
W/C L. C. Dilworth, DFC — 1 ANS, Summerside, to TCHQ, Trenton.
W/C E. J. Greenway — AFHQ to 1 AROS, Clinton.
S/L R. J. Hamilton — RCAF Stn Gimli to 3 AFS, Gimli.
W/C P. A. Hartman, DFC, AFC — AFHQ to CJS Washington.
S/L J. Herbert — ADCHQ, St. Hubert, to RCAF Stn Toronto.
S/L A. R. Jobson — RCAF Stn Goose Bay to AFHQ.
S/L G. T. Johnson — CJS Washington to AFHQ.
W/C R. F. E. Kempster — CJS Washington to AMCHQ, Ottawa.
S/L F. C. Kruger, DFC, DFM — 402 (FB) Sqn (Aux), Winnipeg, to CJS Washington.
W/C K. C. Maclure, AFC — RCAF Stn Trenton to CEPE, Uplands.
S/L E. G. Mahoney — CJS London to AFHQ.
S/L R. H. Manson, AFC — CJS Washington to 3 FTS, Claresholm.
S/L K. A. McCoy — MAC, Halifax, to RCAF Stn Lachine.
S/L J. McGillivray — ATCHQ, Lachine, to RCAF Stn Lachine.
S/L R. J. Mitchell — CNS, Summerside, to TCHQ, Trenton.
S/L D. Morrison — RCAF Stn Rockcliffe to RCAF Stn St. Hubert.
W/C E. C. Poole — AMCHQ, Ottawa, to CJS Washington.
S/L W. G. Scott — 6 RD, Trenton, to 2 FWgHQ, France.
G/C J. D. Somerville, DSO, DFC — RCAF Stn St. Hubert to 1 FWgHQ, U.K.
W/C H. C. Stewart, AFC — CJS Washington to 3 (AW) OTU, North Bay.
S/L F. Watson — CJS Washington to AFHQ.
S/L R. B. West, DFC, AFC — 1 ANS, Summerside, to RCAF Stn Goose Bay.
S/L H. Williamson — 1 FTS, Centralia, to AFHQ Practice Flt.
S/L H. T. Wilson — CJS Washington to AFHQ.

WARRANT OFFICERS: JUNE

WO2 A. P. Kliewer — RCAF Stn Sea Island to RCAF Stn Goose Bay.
WO2 G. D. Philpott — RCAF Stn Winnipeg to 1 Base Maintenance Unit, Portage la Prairie.

WARRANT OFFICERS: JULY

WO2 C. R. Arsenault — RCAF Stn Gimli to 4 FWgHQ, Germany.
WO1 F. E. Blatherwick — 11 SD, Calgary, to 2 FWgHQ, France.

WO1 J. E. Champagne — 6 RD, Trenton, to 1 SD, Weston.
WO2 D. A. Heath — 1 Air Div HQ, France, to RCAF Stn Trenton.
WO2 M. O. S. Hill — AMCHQ, Ottawa, to 14 ACW Sqn, Parent.
WO2 S. W. Joel — 2 FWgHQ, France, to 1 Air Div HQ, France.
WO2 J. Meek, DFC — 3055 TTU (Aux), Vancouver, to RCAF Stn Uplands.
WO2 P. D. Mills — 6 RD, Trenton, to 221 ACW Sqn, Sydney.
WO2 W. G. Morgan — RCAF Stn Uplands to 2 KTS, Aylmer.
WO2 W. H. Pelton — 30 AMB, UK, to 312 SD, UK.
WO2 E. K. Sollows — 2 FWgHQ, France, to RCAF Stn Greenwood.
WO2 H. T. Wideman — 2 TTS, Camp Borden, to RCAF Stn Summerside.
WO2 G. D. Wilson — AMCHQ, Ottawa, to ADCHQ, St. Hubert.
WO2 W. Winchuk — Ph Est, Rockcliffe, to RCAF Stn Rockcliffe.

WARRANT OFFICERS: AUGUST

WO1 S. C. Awcock, MBE — RCAF Stn Goose Bay to RCAF Stn Rockcliffe.
WO1 J. R. Buchanan — 10 TSU, Calgary, to RCAF Stn Portage la Prairie.
WO2 C. E. L. Charlebois — RCAF Stn Lachine to RCAF Stn Rockcliffe.
WO2 R. C. Crawford — 2 KTS, Aylmer, to 5 SD, Moncton.
WO2 J. R. Giles — 12 TSU, Weston, to 426 (T) Sqn, Dorval.
WO2 N. M. Hamill — 1 R&CS, Clinton, to AAS, Trenton.
WO2 C. E. Henderson — RCAF Stn Trenton to 1 Air Div HQ, France.
WO1 F. J. Hill — 4 (T) OTU, Trenton, to RCAF Stn Trenton.
WO2 H. Jones — RCAF Stn Portage la Prairie to 2 FTTU, Portage la Prairie.
WO2 E. H. Knoblauch — RCAF Res Officers School, Kingston, to TCHQ, Trenton.
WO2 N. E. Parsons — 404 (MR) Sqn, Greenwood, to CEPE, Uplands.
WO2 A. O. Smith — 4 (T) OTU, Trenton, to 436 (T) Sqn, Dorval.
WO1 N. T. Swan — 1 R&CS, Clinton, to AAS, Trenton.
WO1 R. W. Tiller — IAM, Toronto, to 1 TAC. Edmonton.

PERSONNEL MOVEMENTS

KEY TO ABBREVIATIONS

AAFCE — Allied Air Forces Central Europe
AAS — Air Armament School
ACW — Aircraft Control and Warning
ADCHQ — Air Defence Command Headquarters
ADGpHQ — Air Defence Group Headquarters
AFS — Advanced Flying School
Air Div HQ — Air Division Headquarters
AMB — Air Materiel Base
AMCHQ — Air Materiel Command Headquarters
ANS — Air Navigation School
AROS — Air Radio Officers' School
ATCHQ — Air Transport Command Headquarters
(AW) — All-Weather
CARDE — Canadian Armament Research and Development Establishment
CEPE — Central Experimental and Proving Establishment
CJS — Canadian Joint Staff
CNS — Central Navigation School
C&R Flt — Communications and Rescue Flight
Det — Detachment
(F) — Fighter
(FB) — Fighter Bomber
FTS — Flying Training School
FTTU — Field Technical Training Unit
FWgHQ — Fighter Wing Headquarters
IAM — Institute of Aviation Medicine
KTS — Composite Training School
(M) — Maritime
MAC — Maritime Air Command
(MR) — Maritime Reconnaissance
NDC — National Defence College
OTU — Operational Training Unit
Ph Est — Photographic Establishment
PWS — Pilot Weapons Schools
"R" Unit — Rescue Unit
R&CS — Radar and Communications School
RD — Repair Depot
SAR — Search and Rescue
SD — Supply Depot
(T) — Transport
TAC — Tactical Air Command
TCHQ — Training Command Headquarters
TSU — Technical Services Unit
TTS — Technical Training School
TTU — Technical Training Unit

ORGANIZATION OF THE R.C.A.F.

By Sqn. Ldr. A. R. Durston

(The present article may not have an instant appeal for all our readers. None the less, it is one of the most important in this series — particularly in view of the imminence of promotion examinations. In comparatively few pages, Sqn. Ldr. Durston has presented a picture that it takes the average member of the Service a good many years to build up for himself, and a careful study of it will certainly reward the student by adding to the interest and effectiveness with which he does his job. Should even that consideration, however, still fail of its appeal, there are always such secondary advantages to be derived from its perusal as the realization that it is rather safer to antagonize a staff officer than a line officer . . . Sqn. Ldr. Durston, who is now employed at A.F.H.Q. in the Directorate of Organization and Establishments, was formerly O.C. the School of Service Management at Trenton.—EDITOR.)

INTRODUCTION

THERE WAS a time — and it is not long past — when the organization of the R.C.A.F. was superimposed on the remnants of a pattern of geographical air organization which existed in Canada during the Second World War. Those were the days when contraction (rather than the requirements in the field) of air power was the major factor which determined the organization. Today that picture has undergone a marked transformation. We are rapidly approaching the type of Air Forces which are required in the fulfilment of Canada's defence objectives; and these objectives are not in excess of the requirement which would exist in the early stages of an outbreak of war. Therefore, it would be meaningless to tell of the organization of the R.C.A.F. without reviewing briefly the requirements for air power which do exist.

CANADA'S DEFENCE OBJECTIVES

The Immediate Defence of Canada and North America from Direct Attack

This means, in terms of air power:

- A fighter interceptor force to defend Canadian territory, in particular the vital industrial and military areas, against air attack. It means, also, close co-operation with the U.S.A.F.
- A tactical air force to work in close co-operation with the Canadian Army and United States air and land forces in the reduction of enemy lodgements.
- A maritime air force to co-operate with the R.C.N. and N.A.T.O. naval forces in the protection of ports and harbours and sea lines of communication.
- An air transport force for the strategical and tactical support of land and air forces.

The Execution of Any Undertakings Made by Canada under the Charter of the United Nations, or under the North Atlantic Treaty Organization or Other Agreement for Collective Security.

"It became apparent that the best way to prevent aggression pending the strengthening of the

United Nations was to form a compact group of western nations whose common interest in maintaining peace would join them together in their common defence."

The first stage in the formation of a compact group of nations ended with the completion of Western Union on 17 March 1948. This was soon followed by discussions which led to the North Atlantic Treaty, ratified by Canada on 3 May 1949. At the signing of the treaty which preceded the ratification, Canada's Minister of External Affairs, the Honourable L. B. Pearson, stated:

"This is more than a treaty for defence. We must, of course, defend ourselves, and that is the first purpose of our pact; but, in so doing, we must never forget that we are now organizing force for peace so that peace can one day be preserved without force.

"Air power will be the major contribution by this country to the Integrated Force of the North Atlantic Alliance in Europe . . . in conformity with the view that this is a medium in which Canadian experience and capacity can most effectively be employed. They (the R.C.A.F. forces allocated to the Integrated Force) will be organized into an air division which is the air force formation normally adequate to provide air support for an army of four or more front-line divisions . . . "

Absent from the foregoing review of Canada's requirements in the field of air power is the requirement for an air strike force. The fact that such a component of air power does not exist in this country vividly illustrates the interdependence of the nations of the North Atlantic Alliance. The contribution which each country should make to the arms-aid programme was determined on the principle that "the man in the best position, and with the capability, should do the job for which he is best suited . . . Canada is unable to support the immense production and maintenance burden of a large strategic bombing force . . . "

On 29 July 1949, General Bradley, the then Chairman of the United States Joint Chiefs of Staff, said:

"The United States will be charged with the strategic bombing. We have repeatedly recognized in this country that the first priority of the joint defence is our ability to deliver the atomic bomb . . . "

The Organization to Build up Strength in Total War

The framework for the rapid expansion of Canada's air power is that which is being completed in our current programmes. The rate of expansion will depend on the numbers of personnel and the amount of materiel resources available to that framework at the moment the necessity for rapid expansion arises.

HOW THE R.C.A.F. IS ORGANIZED

Type of Organization

The R.C.A.F. is organized in what is known as a "line-staff" type of organization. That is to say, certain people in the R.C.A.F.— those whom we call "staff personnel"— perform an advisory service as distinguished from those who perform the line functions of command.

The evolution of a staff service in military organization is a study in itself. There are, however, five fundamentals which enter into a proper understanding of the relationship between line and staff personnel:

- Line and staff are jointly responsible for performance.
- Whereas a line officer exercises authority over all of the body of the organization lying beneath his level of command, staff officers are vested with no military command.
- Although staff officers are charged with responsibilities that have to do with the functioning of their own directorates and branches, this does not give them direct authority over either the line or the staff forces in subordinate organization strata.
- The line authority assumes the basic responsibility for the results of staff work.
- The line recognizes the purpose and value of the staff and makes full use of its advice and assistance.

The line personnel are those who occupy a position within the scalar chain of command. This "ladder" begins with the Chief of the Air Staff. He holds the position of supreme authority in the R.C.A.F. The next level in the scalar chain is that of the Air Officer Commanding a Command. At a Command Headquarters, the Air Officer Commanding is the only person who occupies a line position. The next lower level is that of an Air Officer Commanding, or Group Commander of, a Group. As in the case of the Command Headquarters, the Air Officer Commanding or Group Commander, whichever his designation may be, is the only line officer at Group Headquarters. Proceeding still further down, we come to the Commanding Officer of an air materiel base, station, wing, or depot, then down to the heads of the major components of the station or equivalent

base. These people include such positions as Chief Operations Officer, Chief Technical Officer, Chief Administrative Officer, Chief Supply Officer, and, in fact, any other person who reports directly to the Commanding Officer. The line continues down through the levels of command until the very last person is reached. This is the chain of command.

The staff personnel are those who occupy positions outside the scalar chain of command. They include all personnel at Air Force Headquarters with the exception of the Chief of the Air Staff, and all staffs at Command and Group Headquarters with the exception of the Air Officers Commanding or Group Commanders (as the case may be). A staff officer's line authority is limited to that which he exercises in the direction and control of subordinate staff.

Functional Commands

We have often heard the expression "functional Commands" used. Like many of our other military terms, this term has an "invented" meaning. It refers to the basis upon which we have determined the major sub-divisions of activity.

By the term 'functional Commands" we mean the distinction between kinds of duties performed by the respective Commands. Thus, it is clearly distinguished from the scalar chain of command. To employ a simple illustration, the difference between a Commanding Officer and a Chief Administrative Officer is one of gradation in authority and is, therefore, scalar. The difference between Training Command and Maritime Air Command, however, is "functional," because here we have a distinct difference in the nature of the rôle of these two Commands, even though they are both part of the general line-staff organization.

Basis for Sub-Division of Activity

A great number and variety of constituent parts or units are necessary in the fulfilment of the aim of any large organization. Therefore, prerequisite to the determination of the numbers and types of parts required, is a clear and complete statement of the organization's aim or objective.

In the R.C.A.F., these parts or units are divided into formations, stations, units, and detachments, as defined by the appropriate paragraphs of Q.R. (Air), Art. 1.02. Each of these units has its own commander, and the units are normally grouped together for a common major purpose (i.e. air defence in Canada and in Europe, and tactical, maritime, transport, training, and logistics operations) under a higher commander. The principles underlying this system of command and association are, of course, the principles of *Unity of Command, Span of Control, Rational Assignment, and Delegation of Authority*.

The grouping of activities which have a common major purpose brings together all those units concerned with any one of the seven types of field forces required in the fulfilment of Canada's defence objectives as outlined earlier. Under such a policy, the field force concerned with air defence contains not only the fighter interceptor squadrons, aircraft control and warning squadrons, air observation posts and anti-aircraft artillery, but also aeronautical, telecommunications, and construction engineering; medical; accounting; supply; messing; legal; personnel careers; and, in short, everything that is required in the maintenance of the air defence force.

The advantages of this application of the principles of organization are five.

1. It makes more certain the accomplishment of any given broad rôle or project by bringing together the whole task under a single commander with immediate control of all specialists, agencies, and services, which are required in the performance of the objective. The commander does not have to wait for others. He can devote all his energies to getting on with the job.
2. It minimizes the difficulty of maintaining an Air-Force-wide policy for any one of the seven classes of field units. If the control of field units were to be divided into limited geographic blocks, not only would it stifle the mobility required in a modern air force, but it would place under one commander activities widely differing in their nature and technology; increase the danger of narrow and short-sighted management; and introduce a general hesitancy to delegate sufficient real authority to any one of the geographic commanders, because no one commander would be completely responsible for the carrying out of policy with respect to any one of the types of field forces required.
3. It provides for the highest order of the mobility essential to the successful conduct of modern air warfare. All forces organized and equipped for a particular type of air warfare can be concentrated or dispersed in the shortest possible time by a single commander.
4. It minimizes the manpower costs for personnel, particularly staff personnel.

5. It serves as the best basis for drawing out the energies and loyalties of the personnel, and for giving a focus and central drive to the whole activity.

From the preceeding remarks, it follows that the formations, stations, units, and detachments comprising the R.C.A.F. are grouped into seven major field organizations — each commanded by a single commander who in turn reports directly to the Chief of the Air Staff.

CHIEF OF THE AIR STAFF

The Chief of the Air Staff is the supreme directing and co-ordinating authority in the R.C.A.F. He is responsible, under the direction of the Minister of National Defence, for the control and administration of the R.C.A.F. and its employment in accordance with governmental policy. In peace, he must ensure the preparedness and fighting efficiency of the Air Forces allotted; and, in war, he becomes the commander of all field formations comprising the R.C.A.F.

Air Force Headquarters

While the C.A.S. is personally responsible for the direction and control of the R.C.A.F., much of the detail of this responsibility is performed by his staff at Air Force Headquarters. The officers of this headquarters staff are the C.A.S.'s immediate assistants. They help him make his decisions and formulate his policy by presenting to him, duly analysed, the problems under consideration. They do not, however, personally exercise powers of command, for the reasons stated earlier.

Because of the nature of the functions performed, the C.A.S.'s staff at A.F.H.Q. is organized into three main Divisions — Operations, Personnel, and Materiel.

The Operations Division, under the direction of the Vice-Chief of the Air Staff, is responsible for the preparation and co-ordination of the operational plans and organization for the yearly, long-range peace, and mobilization activities, and for the supervision of their execution.

The Personnel Division, under the direction of the Air Member for Personnel, is concerned with the personnel solely as individuals. It is an invariable truth that no organization is any stronger than the individuals who compose it. Consequently, this Division sets standards for the selection, movement, and promotion, of men and women in all branches of the Service, in order that the right person shall always be found in the right place.

The Materiel Division, under the direction of the Air Member for Technical Services, is responsible for the making and the supervision of the broad plans and policy for the furnishing of materiel in the manner best suited to the needs of the field forces.

FIELD ORGANIZATION

Air Defence Command

As the reader well knows, the shortest air routes between air bases in the Soviet Union and the industrial centres of Canada and elsewhere on the North American continent, lie across the North Polar region. This simple fact graphically illustrates the importance of air defence in Canada.

To render ineffective the enemy's air efforts against vital areas, it is axiomatic that the interception of such an attack should take place as far north as possible. The problems related to the development of, and organization for, a force capable of effecting such interceptions is a story in itself. It is enough to say that it requires long-range high-speed aircraft, aircraft control and warning squadrons, civilian air observation posts, filter centres, and air defence control centres, all working in harmony with one another and in harmony with anti-aircraft artillery forces of the Canadian Army.

The R.C.A.F. units provided for air defence are organized under one field organization: Air Defence Command.

From his headquarters at St. Hubert, P.Q., the Air Officer Commanding A.D.C. is charged with the responsibility for such tasks as:

- Organization and operation of the early warning network, which includes the aircraft control and warning squadrons, air observation posts, filter centres and air defence control centres.
- Deployment of fighter aircraft against air attack.

- Training of all Regular and Auxiliary air and ground personnel allocated to his Command.
- Development of detailed operational plans required in the execution of the general air defence plan.
- Liaison with similar forces, particularly those of the United States Air Force, on mutual air defence problems and plans.
- Operation control, through the commander of the Anti-Aircraft Command, of Canadian Army Regular and Reserve units which have been assigned to the air defence rôles.
- Conduct of an active electronic countermeasures field training programme.

Because of the wide dispersion of A.D.C.'s forces, those forces situated on the West Coast of Canada are controlled through an intermediate Group organization. The headquarters of this Group (No. 12 Air Defence Group) are located in Vancouver. The commanders of all other fighter squadron bases, operational training bases, and air defence control centres, report directly to the A.O.C. A.D.C. The commanders of the aircraft control and warning squadrons report directly to the A.O.C. or Group Commander, as appropriate, on all matters concerning the administration of their squadrons, but for operational purposes they report directly to the Sector Commander of their respective air defence control sector.

No. 1 Air Division, R.C.A.F.

No. 1 Air Division, with headquarters at Metz, France, constitutes the air formation which Canada has contributed to the integrated forces of the North Atlantic Treaty Organization. In size, status, and organization, No. 1 Air Division is, in fact, a Command. In addition to his normal Command responsibilities, powers have been delegated to the A.O.C. of this division to exercise Command administrative control over all R.C.A.F. personnel in Europe, except for the R.C.A.F. personnel of the Canadian Joint Staff, London, England.

The internal organization of No. 1 Air Division is similar to that of any other Command. A Division Headquarters staff is established at Metz to advise and assist the A.O.C. with the problems of command and control of the fighter wings and air materiel support organization. In this regard, the A.O.C. is charged with the responsibility of ensuring a proper standard of efficiency of all elements comprised by No. 1 Air Division. On all matters other than operational deployment of No. 1 Air Division squadrons, the A.O.C. is responsible directly to the C.A.S. On operational matters the A.O.C. is responsible to the C.A.S. for the successful execution of such air operations as may be assigned to the forces of his division by the Commanding General, 4th Allied Tactical Air Force.

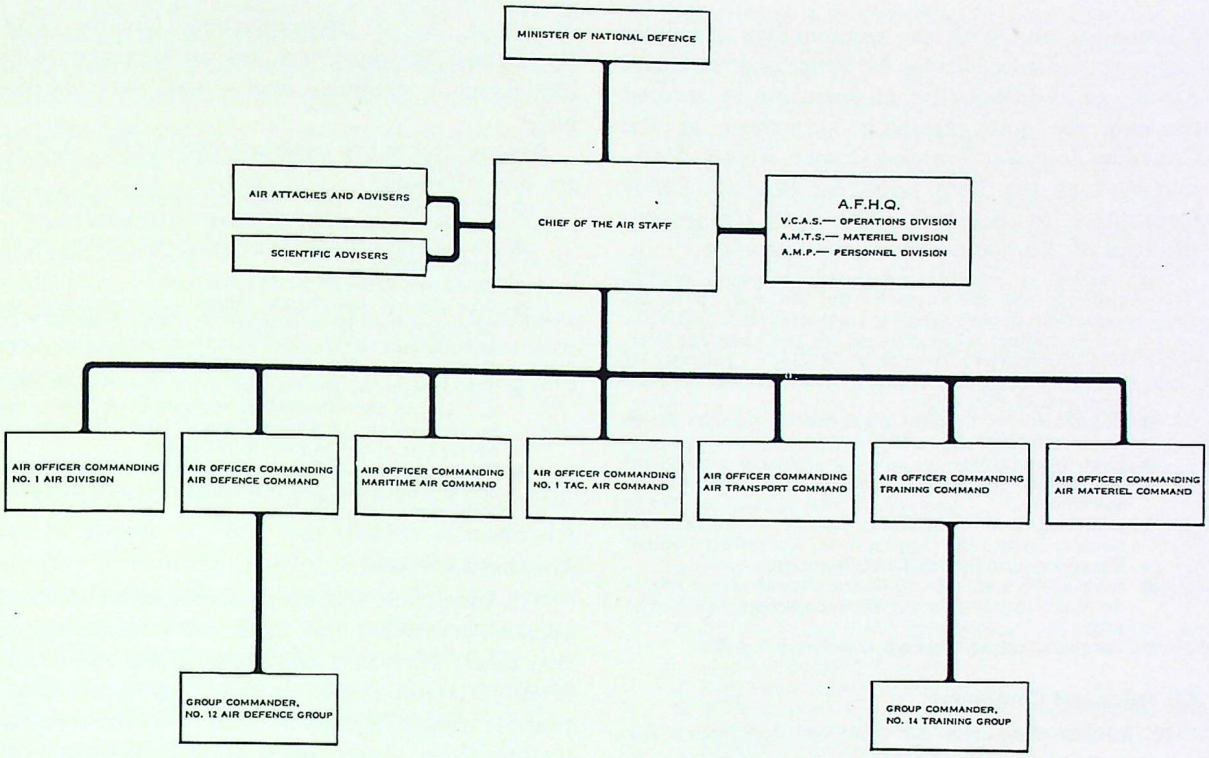
Maritime Air Command

The experience of the Second World War demonstrated very clearly that the protection of ports and harbours and of sea lines of communication is a joint naval and air responsibility.

One of the main duties of land-based aircraft working in conjunction with the Navy, is reconnaissance. For it is largely as a result of air reconnaissance that our surface ships and offensive aircraft will be able to intercept and attack hostile naval forces. Air forces operating in this rôle also provide essential support in connection with anti-submarine operations, convoy protection, and anti-shipping strikes. That part of the R.C.A.F. forces assigned to maritime air operations is under the command and control of the A.O.C. Maritime Air Command.

It is axiomatic that the closest co-operation with the Royal Canadian Navy and the commander of the naval forces of the Western Atlantic Ocean Region must be maintained, if full advantage is to be taken of the power of aircraft to assist the naval forces in the latter's defensive rôle. This close co-operation is secured by means of joint training exercises, a Joint Maritime Headquarters commanded by the R.C.N.'s Flag Officer Atlantic, and a Joint Maritime Sea/Air Warfare School.

All maritime forces of the R.C.A.F. located in Eastern Canada are controlled, through the appropriate base commanders, by the A.O.C. M.A.C. from his headquarters at Halifax, N.S. Because of the problem of span of control, the R.C.A.F. maritime air elements allotted to the Pacific Coast of Canada are assigned to the Group Commander, No. 12 Air Defence Group. In the exercise of his command over the maritime forces, the latter commander is guided by the maritime air operations principles, policy, and tactics laid



down by the A.O.C. M.A.C.

The following are some of the assigned responsibilities of the A.O.C. M.A.C.:

- Protection against enemy submarines, by land-based aircraft, of coastal and sea lines of communication.
- Anti-shipping operations, including shadowing and limited strike action.
- As directed by A.F.H.Q.— operational testing, evaluation, tactical application, and development, of tactics for the use of maritime aircraft and equipment.
- Search and rescue operations.

No. 1 Tactical Air Command

There are many reasons why an enemy might attempt to land a force of troops in Canada. Among the most probable would be to establish an advanced base for the extension of air attacks, or to knock out some important industrial or military installation, or to achieve diversionary or nuisance objectives. In defence against such an attack, a specially trained and equipped force of airborne troops exists within the forces of the Canadian Army.

An integral part of a ground force, mobile or otherwise, is the existence of a supporting tactical air force. Among the primary tasks of a tactical air force operating in support of land operations are: tactical air transport support, air reconnaissance, protection of ground forces from enemy air attacks (thus ensuring the army freedom of tactical manoeuvre), disruption of the enemy's lines of communication, and the neutralization of enemy positions on the ground.

All units of the R.C.A.F., Regular and Reserve, trained and equipped for tactical air operations, are assigned to the A.O.C. No. 1 Tactical Air Command, whose Headquarters are located at Edmonton, Alberta.

From the brief explanation above, it can be seen that the success of joint land/air operations depends upon the closest co-operation between the land and air forces. Hence, the A.O.C. No. 1 T.A.C. is required to maintain liaison with the commanders of the various Canadian Army field

Commands and with the commanders of similar forces of the United States Air Force and the Royal Air Force. Additionally, co-operation is secured through the joint training performed at the Canadian Joint Air Training Centre, Rivers, Man., and through the Joint Land/Air Warfare Policy Committee at A.F.H.Q. The A.O.C.'s responsibilities of command include the following:

- Tactical air support and tactical transport support training and operations in the R.C.A.F., with the exception of that training conducted at C.J.A.T.C., but including (when directed by the Land/Air Warfare Committee) control of R.C.A.F. elements of C.J.A.T.C. in operational activities outside the normal functions of that centre.
- Preparation of detailed plans for the Mobile Strike Force on behalf of the R.C.A.F.
- Recommendations on policy concerning tactical air operations, techniques, training and technical requirements.
- Initiating and maintaining liaison on tactical air matters with the appropriate Canadian, United Kingdom, and United States Services.
- Supervision and control of search and rescue operations and training for the Western Search and Rescue Area.
- Control of all units assigned to No. 1 T.A.C.

Air Transport Command

In addition to the air tactical transport for tactical air support operations, transport aircraft perform an essential rôle in the tactical and strategic mobility of other air forces. Aircraft themselves are very mobile and flexible when operating from their bases, but when the base of operations has to be changed (as, for example, the move of our F-86 squadrons to No. 1 Air Division) it is essential that maintenance and other ground personnel be transported to the new base as quickly as the aircraft themselves, and this mobility can only be achieved by transport aircraft. As well as the foregoing type of operations, transport aircraft are needed for the re-supply of air and ground forces, transportation of troops, and the evacuation of casualties.

With the exception of No. 137 Transport Flight at Langar, England, all R.C.A.F. squadrons trained and equipped for air transport operations have been assigned to the A.O.C. Air Transport Command. (No. 137 Transport Flight is engaged solely on re-supply operation between the Air Materiel Base at Langar and No. 1 Air Division.) The hub of operations for all A.T.C. squadrons is, of course, A.T.C. Headquarters, Lachine, P.Q. From these Headquarters, the air transport web-like network stretches over many parts of the globe.

Among the tasks assigned the A.O.C. A.T.C. are the following:

- Air transport operations, excluding tactical air transport support for the Mobile Strike Force.
- Photographic survey and area reconnaissance of the arctic regions.
- Re-supply of arctic weather stations.
- Provision of operational training for transport and photographic crews assigned for duty with A.T.C., and provision of operational training for other Commands as directed by A.F.H.Q.
- To arrange, in conjunction with the A.O.C. No.1 A.T.C., for the operational training of A.T.C. crews in tactical air transport support and photographic operations of the Mobile Strike Force.
- To provide the A.O.C. A.D.C. with air assistance in conjunction with radar calibration projects or fighter interceptor exercises.

Training Command

The formation and maintenance of air defence, tactical, maritime, and transport forces, requires personnel with expert knowledge of a great variety of subjects and skilled in many trades. It is not possible to enlist personnel with all of the essential qualifications. Even where skilled personnel can be directly enrolled, they still must have special training to adapt their knowledge to the use and maintenance of costly and specialized equipment, and to lead to the teamwork essential to the success of air operations. Consequently, among the most active of the many units of the R.C.A.F. are those engaged in training within Training Command.

The types of training for which the A.O.C. T.C. is responsible requires little introduction. However, for the benefit of those who may be out of touch, the A.O.C. T.C.'s responsibilities include:

- Pre-operational training for Regular and Reserve Force aircrew personnel.
- Training to Group 1 standard for Regular Force airmen and airwomen in approximately 47 trades and specialties.
- Basic officer training for Regular Force non-flying-list officers.
- Staff training of senior officers.
- Advanced supervisory training for N.C.O.s
- Training for potential air and ground instructors.
- Aircrew training, excluding radio officer training, for N.A.T.O. personnel.
- Advice and assistance to other formations in the execution of A.F.H.Q. policy respecting trade advancement.

As well as the foregoing, the A.O.C. T.C. is responsible for the preparation and correction of Air-Force-wide trade advancement examinations and officers' and N.C.O.s' qualifying examinations; and for the conduct of university training programmes and special courses of instruction for Royal Canadian Air Cadets.

For reasons of span of control, all T.C. stations and schools located in Western Canada are controlled by the A.O.C. T.C. through No. 14 Training Group, Winnipeg, Man. All T.C. stations and schools located in Eastern Canada are controlled by the A.O.C. T.C. from T.C. Headquarters at Trenton, Ont., direct.

Air Materiel Command

When one considers the R.C.A.F. as an organization spread out in a large number of bases and smaller units in many parts of Canada, as well as in Europe and other areas of the world, one begins to realize the magnitude of the task of providing the materiel at the moment it is needed at any one of these places. The corner-stone of the provision of these resources is, quite obviously, the organization for logistics support.

Seldom are there sufficient materiel resources, particularly in wartime, to meet all needs. Therefore, in order to concentrate the available materiel where it is most needed, it follows that the general control of materiel be centralized under one command; and in the R.C.A.F. this command is Air Materiel Command. (The centralization of the control of materiel does not imply that all the available resources must be centralized in one place, but rather that they are so disposed as to facilitate delivery to the field forces.)

A.M.C. comprises a Headquarters in Ottawa plus a field organization of supply depots, repair depots, and explosive depots, located in various strategical areas of Canada. Through these depots flows the materiel upon which the remainder of the Air Force is dependent.

In addition to these depots, A.M.C. includes a number of Technical Services Units and Detachments located in the major industrial plants engaged in production of materiel for eventual use in the R.C.A.F. In short, the R.C.A.F. personnel of these units and detachments see that we get what we contracted for. Still other essential field formations of A.M.C. are Central Experimental and Proving Establishment and Detachments, No. 129 Acceptance and Ferry Flight, and the R.C.A.F. Requirements Unit at Dayton, Ohio, U.S.A.

During the first phases of the build-up of No. 1 Air Division, No. 30 Air Materiel Base was under the direct control of the A.O.C. A.M.C. In conformity with the ultimate plan for the control of all R.C.A.F. forces in that theatre of operations, control of No. 30 A.M.B. has now been transferred to the A.O.C. No. 1 Air Division. The A.O.C. A.M.C. continues, however, to be responsible for the logistic support of No. 30 A.M.B.

The A.O.C. A.M.C.'s responsibilities of command comprise the following:

- Preparation of detailed plans and instructions for logistic support of the R.C.A.F., based on policies outlined by A.F.H.Q.
- Provision, receipt, warehousing, distribution, accountability, and disposal of every item of materiel required by the R.C.A.F.
- Immediate logistic support of all units of the R.C.A.F.
- Maintenance, repair, overhaul, modification, and quality inspection of R.C.A.F. equipment beyond the capability of Commands.
- Technical assistance to all other R.C.A.F. Commands and higher formations.
- Maintenance (beyond unit capabilities) of all works and buildings, including minor new construction, and development of standards and techniques.
- Administration and control of the field logistic units included in A.M.C.
- Test and acceptance of aircraft received by the R.C.A.F. after overhaul or modification programmes.
- Experimental and proving projects as directed by A.F.H.Q.

Joint Staffs, Air Attachés, and Advisers

This general description of the field organization for the R.C.A.F. would not be complete if mention was not made of the Joint Staffs, Air Attachés, and Air Advisers.

As indicated in the article on the Canadian Joint Staff, Washington, which appeared in the June 1953 issue of "The Roundel," the specific duties of these staffs are many and varied. The basic reason for the appointment of these people is to:

- Advise the Canadian High Commissioner, Ambassador, or Chief of Mission (as the case may be) on air matters.

- Supply the C.A.S. with such information, concerning the air forces of the country to which they have been accredited, as may be made available to them by duly authorized officials of that country.

The air or other officer appointed to command each of the R.C.A.F. staffs located in London, Washington, Paris, Stockholm, Prague, Moscow, Brussels, Belgrade, and Tokyo, is responsible directly to the C.A.S. for effective discharge of his assigned responsibilities.

CONCLUSION

The organization of a military force must be constantly adapted to meet the needs of the defence situation and of modern warfare. Consequently, the organization as described in this article is not the ultimate for the R.C.A.F. It is merely the best for the situation as it exists at this moment.

"EXERCISE" AND "OPERATIONS"

May the fighting services be pleaded with to launch an operation to end all "Operations?"

The mischief began early in the last war and spread, as lustily as rabbits multiply in Australia, so that by the time Mr. Churchill reached his third volume he found it necessary to log thirty-one code names. They had the excuse of secrecy to justify them. But, even so, they were tricky customers. Mr. Churchill commented on them in one of those personal minutes by which he spread alarm and despondency among the brass hats and the bureaucrats — or, at least, that is what the rank and file of the nation hoped. His minute to to General Ismay is so apt that to paraphrase it would be impertinent. He wrote:—

I have crossed out on the attached paper many unsuitable names. Operations in which large numbers of men may lose their lives ought not to be described by code words which imply a boastful and over-confident sentiment, such as "Triumphant," or, conversely, which are calculated to invest the plan with an air of despondency, such as "Woe-betide," "Massacre," "Jumble," "Trouble," "Fidget," "Flimsey," "Pathetic," and "Jaundice." They ought not to be names of a frivolous character, such as "Bunnyhug." "Billingsgate," "Aperitif," and "Ballyhoo."

There was a price to pay, even for war-time secrecy. It could, and did, lead to muddles. Mr. Churchill's delight in Mr. Forester's "Hornblower," conveyed from mid-Atlantic, to Cairo, caused perturbation in the Middle East Headquarters where it was imagined that "Hornblower" was the code word for some Operation of which they had not been told. What is the excuse in peace-time for Long Step, Mainbrace, Castanets, Grand Slam, Beehive, Cirrus, Cupola, Ombrelle — all of recent naming? City fathers can invite their guests to a banquet and not to an "Exercise Lucullus." Is not the demobilization of two tired, long-service words overdue?

(*"The Times Weekly Review": U.K.*)

The Fourth Milestone

By Flight Lieutenant J. G. Munnoch

(Author's note:— This article, as will be readily apparent, represents only a layman's thoughts on the subject of interplanetary flight. Although all reasonable care has been taken to ensure the accuracy of the facts and figures mentioned, many of the opinions expressed are the writer's own. The reader is warned against going to too great expense in constructing his spaceship until he has consulted Dr. Von Braun.)

THE PAST

AGU THE CLIFF-DWELLER stared speculatively at Ule across the remnants of the brontosaurus steak. Ule had been his mate for three suns, ever since her capture from the tribe of nomadic blue-eyed dwellers of the plains.

He reached absently into a recess in the wall of the cave for another handful of fermented barley. His thoughts were far from pleasant. Consummation of the capture had perforce been delayed while he licked the axe puncture in his groin back to health. The wound was a memento of his struggle with Ule's mate, who had shown a decided reluctance to part with —

Agu's train of thought broke abruptly and his startled leap brought him to the mouth of the cave on all fours.

The man-scent was already disappearing on the summer breeze, but Agu's eyes were quick to glimpse the foot the plain-dweller had neglected to conceal behind the boulder. Agu looked over his shoulder at Ule standing in the centre of the cave.

Even in this moment of emergency he was unable to keep from wondering why it should be that Ule's appeal had, in such a short time, increased so immeasurably. Was it because he had so nearly lost her when she had fallen into the pool at the foot of the falls and remained submerged to her chin for half the daylight period before he found her? Did the water have some unknown property that increased her desirability? Did —

A rock (Surface-to-Surface Missile Mk. 1) bounced from the side of Agu's head to shatter against the wall of the cave. Agu's sudden rage obliterated his fear of the plain-dweller. Seizing a large rock from the pile beside him, he flung it with all his might at the concealing boulder . . .

In a few minutes he had exhausted his supply of rocks, without dislodging the intruder. He cast about him for other weapons.

As he strained to lift a flat round rock embedded in the glacial debris covering the approaches to the cave mouth, Agu tasted despair. But at last it moved. He gave a final heave and jumped back quickly. Gathering speed as it rolled down the steep incline, the rock bounced high into the air and landed squarely upon the shoulders of the already fleeing plain-dweller. Agu gazed silently upon the crimson mash that had been his enemy. But he was not aware of what he saw. It was wonder, not triumph, that widened his eyes.

Agu had discovered the wheel.

War had served peace.

* * *

From the days of Agu, down through millennia of conflict to the threat of a Third World War, man's peacetime pursuit of knowledge and happiness has always received a marked impetus from the grim inventions of war.

Orville Wright, by his own recent admission, did not in 1903 envisage trans-Pacific airliners

capable of flying from San Francisco to Honolulu in 8 hours with a load of 50 passengers. Wright would probably not have lived to see such an aircraft if men like Fokker and Sopwith had not been spurred by the necessity of air superiority and backed by the money of the fear-ridden governments of the First World War.

Tremendous strides in a multitude of sciences were possible again during the Second World War, for the same reason. Pure science has reaped a veritable harvest in the fields of optics, electronics, propulsion, nuclear physics, etc. The housewife, too, has benefited by plastic toys, packaging, heatless ovens, synthetic tires, dehydrated foods, and a better radio with which to listen to the merits of her favourite soap.

It is in the field of transportation, however, that what are perhaps the greatest war-inspired strides have been taken. To date, and probably in the fairly near future, the four main transportation milestones can be classified as:

1. the wheel,
2. successful heavier-than-air vehicles,
3. conquest of the sonic barrier, and
4. attainment of escape velocity.

The first three have been achieved; the fourth is yet to come.

Since war is so obviously a product of human nature, we are reasonably assured of periodic short bursts of tremendous scientific advancement for some time yet to come — at least, until the occurrence of one burst too many.

THE PRESENT

There are numerous peacetime uses to which present knowledge in the related fields of rocketry and jet propulsion can be put. The advent of dependable long-range guidance systems makes it possible for guided missiles to take their rightful place in commerce and science as well as in offensive and defensive war.

Some associated fields are relatively unexplored. Scant attention has been given, for example, by the developers of guided missiles to the safe landing of their vehicles. Nor, indeed, has such attention been considered necessary, since the sole purpose of a guided missile is destruction of a target without bothering about preservation of the missile. Should a lull in, or cessation of, international tension occur, it will possibly permit the designers of destructive missiles to devote some of their time to providing for the safe landing of sub- and super-sonic vehicles. (A start in this direction has, indeed, already been made in the W.A.C. Corporal launchings and recoveries.) Forward-thrust rocket motors, dive brakes, parachutes, controlled orbits — these are among the most common means so far suggested for the achievement of such an end.

For travel outside the Earth's atmosphere, metallurgists must develop meteor-resistant alloys. Pressurization and refrigeration are presently being improved by designers of rocket-powered aircraft. It has been demonstrated that life in mammal form *can* withstand the terrific *g* resulting from rocket launchings.

There are many other similar problems, too numerous to mention here, still waiting to be solved. Meanwhile, without taking into account any great advances upon present techniques, let us glance at some of the possible uses of guided missiles as they exist today.

- High-altitude rockets, such as the W.A.C. Corporal series with a 250-mile ceiling, would be invaluable to the meteorological forecaster. Photos already taken from an altitude of 100 miles show complete weather systems over a vast area of the Earth's surface. Several such rockets fired daily at the same time from widely separated points could give complete visual coverage of the entire surface of the Earth. Wirephoto, facsimile, or guided missiles could be used to exchange these photos between weather centres.
- Photographs taken from high-pressure areas would enable cartographers to produce maps of unquestioned accuracy in incomparably less time than is required by present air survey methods.
- Ionosphere research into radio propagation.
- Spectrographic studies without interference from the atmosphere. (The University of Colorado has built a spectrographic camera designed for use in rockets. Installed in a B-29, it gave a satisfactory performance during a solar eclipse.)
- Simplification of the study of hydrogen particle bombardment.
- Delivery of airmail to intermediate points 50 to 100 miles off the track of non-stop airliners.
- Theft-proof transportation of large quantities of currency, radium, etc.

At the same time, however, we must not forget that — at present — there are still several factors which militate against the guided missile's utility.

- High initial cost (though mass production of established models would eventually bring the price within reason).
- High cost of training operating-crews.
- Impossiblity (to begin with, anyway) of obtaining insurance against losses.
- Cost of necessary fuels.
- Necessity of redesigning long-range air traffic control systems to take care of the tremendous speeds involved.
- Necessary military security and monopoly, which constitute the chief obstacle in the flow of guided missiles from manufacturer to commercial and scientific operator.

THE FUTURE

Many writers have stated that almost all the scientific knowledge required for interplanetary travel is in our hands today. Technical knowledge is lagging somewhat and has not yet reached the point where an interplanetary rocket can be built. Such authors are usually men of position in their chosen fields of physics, astronomy, engineering, and other pertinent sciences. The British Interplanetary Society and the American Rocket Society list among their members many "name" scientists. Some of them (the majority) are convinced that space travel, in a limited form, will be an accomplished fact within 10 years; others say 50 years.

For those who may smile at such an optimistic outlook, I would like to point out that the speed of the stock automobile has increased from 15 m.p.h. to 120 m.p.h. (8 times) in 50 years. Mechanical dependability has kept pace. Piloted aircraft have gone from 80 m.p.h. in 1914 to 800 m.p.h. in 1950 (10 times in 36 years).

The performance of the present day rocket will require a speed increase of only 5 to 6 times the best speed yet obtained to enable the rocket to leave the Earth for a target in space.

The figure of 5 to 6 times the present best speed is approximate. The gravitational attraction of the Earth is such that an object would require a velocity of 36,000 yards per second, or slightly less than 25,000 m.p.h., to overcome gravity and proceed into free space. The velocity is termed "escape velocity." The W.A.C. Corporal and its V-2 type booster have, together, a combined velocity of roughly 3,000 m.p.h. plus 3,000 m.p.h. or 6,000 m.p.h. for the smaller rocket.

If the more conservative speed of 5,000 m.p.h. is used, present rocket velocity must be increased only 5 times to achieve escape velocity. That this can be accomplished in ten years is perhaps doubtful, but the history of the automobile and the piloted aircraft give reasonable assurance that it may come within 30 to 50 years. Dr. Von Braun, designer of the V-2, stated in a recent magazine article that he expects to see an earth satellite orbiting the globe only a few years from now.

Escape velocity is the main reason that an unmanned test rocket has not been filled with white powder and fired at the moon for research purposes. It is safe to assume that the first rocket to leave the gravitational field of the Earth would be unmanned. Proof of the rocket reaching the moon would be relatively easy to obtain. The white powder would spread a considerable distance over the very dark rock of the atmosphereless moon and be readily discernable through a large telescope as a spot of extreme brightness. Large telescopes of the 100- or 200-inch order could track the rocket in flight, by a succession of photographs, for most or all of the journey.

Another reason such a rocket has not been built is the prohibitive cost of the project. Although the cost has been estimated to be less than the cost of the atom bomb, it would still be high enough to require an almost foolproof guarantee of success by the builders.

The problems of navigation are formidable, but not impossibly so. The scientists of astronomy, who for centuries have been able to predict eclipses with great accuracy, would have no difficulty in determining the trajectory of the rocket. However, to avoid loss of the rocket on account of unpredictable alterations in course, meteor collisions, fuel inconsistencies, etc., a guidance system based on auto-celestial navigation or a command guidance system is essential.

The size of the target is such that it appears easy to hit. The angular diameter of the moon at its mean distance from earth (238,857 miles) is a little over 31 minutes of arc, or 2,160 miles. The moon is moving in its orbit around the earth at about 2,300 m.p.h. The earth rotates at a speed of

1,040 m.p.h. at the equator. If a preset guidance system is used, the above factors will cause it to fall short of the accuracy required. The fuels used would have to give a constant speed. If, because of a slight drop in speed, the rocket arrived an hour late, the moon would have moved along its orbit a distance greater than its own diameter and the rocket would miss it by a fair margin. Equally, an error in launching of a fraction of a degree could, after 9½ hours' travel at 25,000 m.p.h., cause the missile to miss.

Despite the amazing accuracy obtained by using the auto-celestial guidance system in surface-to-surface missiles, it is doubtful that it would prove satisfactory without additional control. It is to radio that we may turn in anticipation of best results.

* * *

Radio echoes from Luna were first obtained by the U.S. Army Signal Corps in January 1946. An experiment designed to bounce morse code from the moon back to earth achieved success in October 1951. Samuel Morse's original message, "What hath God wrought!", was beamed at the moon by a Collins Aeronautical Laboratory U.H.F. 20-kilowatt transmitter on 401 megacycles, located at Cedar Rapids, Iowa. The morse echoes received by the U.S.A. National Bureau of Standards' Central Radio Propagation Laboratory at Sterling, Va., could be copied by ear from a tape recording made by the receiver. The distance between Cedar Rapids and Sterling is 775 miles — well over maximum line-of-sight range.

In November 1951 the transmission was interrupted on a prearranged schedule to permit measurement of the time lapse. The time required for the signal to cover the ½-million-mile round trip was approximately 2.5 seconds. (The experimenters failed to disclose their reason for neglecting the N.R. number.*)

The above experiment demonstrates the practicability of a command guidance system, operating over a distance of 223,000 to 252,000 miles. Radio signals could be used to operate small rocket motors installed solely for steering. These steering rockets would, of course, be very effective for their small size, since the main power unit would cease operation once the rocket had achieved escape velocity. If the rocket missed the moon but entered its gravitational field in just the right area, it would orbit the moon permanently (meteors permitting). Positive radio control would eliminate this by ensuring a correct course for interception.

It will be interesting to see which will evolve first — the earth satellite or the moon rocket.

The Moon

If the lunar rocket achieves success, possibly it will be followed by rockets capable of carrying a crew. The first adventurers would probably circle the moon (using a speed-v-gravity orbit), start up their rockets, and return to the earth without landing. Since the period of rotation of the moon upon its axis is 27 days, 7 hours, 43 minutes, 11.5 seconds, and it revolves around the earth in the same length of time, only about half of the moon's surface is visible to the observer on the earth. Owing to factors too lengthy to discuss here, there are libration effects which permit us to see more than 180° of the moon's surface. Because of libration in latitude, an area of the moon beyond one pole is visible to 6°41′, and half a lunar month later the area beyond the other pole is visible by 6°41′ also. Hence we see 180° plus 6°41′ plus 6°41′, or 193°22′ of latitude. Libration in longitude permits us to see 7°45′ farther than the eastern limb and, alternately, the western limb; so that we see, eventually, 180° plus 7°45′ plus 7°45′, or 195°30′ of lunar longitude. Therefore, somewhat less than half the moon's surface has never been seen by man.

Landing on the moon would probably accomplish much in adding to our general knowledge. On account of the lack of oxygen, colonization is out of the question. Surface exploration could be conducted only with the greatest of difficulty. Temperatures range from 230° F., when the sun is overhead, to about -400° F. during the two weeks' night.

Luna appears inhospitable. Let us examine very

*For the benefit of non-radio readers, an "N.R. number" is simply a serial number indicating whether a message was the first, second, third, or umpteenth to be sent on any given day. We interpret Flt. Lt. Munnoch's remark as an electronic sort of jest.— EDITOR.

briefly our other neighbours, starting with those nearest the sun.

Mercury

Mercury is about 50,000,000 miles (an 84-day trip at 25,000 m.p.h.) from the earth at its closest approach, but is only 36,000,000 miles from the sun. Consequently its temperature range on the permanent (?) day side is over 700° F. Ponds or streams, if any, would be of the softer metals. No atmosphere is apparent during its transits of the sun. On the dark side, temperature would approach absolute zero. Since the planet always presents the same surface to the sun (as far as it is possible to determine), it is thought that a balance between the temperature extremes exists at or near the terminator. Mercury has no known satellites.

Venus

This is the closest planet to Earth. When it is an inferior conjunction, its distance is 25,700,000 miles from us (a mere 43-day trip). Temperature range is from 135° F. (sunlit side) to -73° F. (dark side), at the surface of its atmosphere. Temperatures at sea level (if it has a sea) would be moderated by rotation of the planet. The dense atmosphere could also result in an equatorial temperature as high as the boiling-point of water. It has an atmosphere twice as dense as ours. Nothing is known about its surface markings, since the surface cannot be seen through the clouds, but it is considered to be in a state of evolution inferior to ours. It has a density of 9/10 that of earth, and its diameter of 7,600 miles makes it the planet most similar to Earth in size. The upper atmosphere has been examined by spectroscopic devices to determine its composition. Tests reveal the presence of carbon dioxide, but water vapour and oxygen have not been found. It has no known satellite.

Mars

Much smaller than Earth, Mars has a diameter of 4,220 miles and weighs a mere 665,000,000,000,000,000,000 tons (plus or minus a few pounds, I suspect). Its closest approach to earth brings it to within 35,000,000 miles—a 58-day leg.

The summer temperature on the surface of Mars has recently been measured at 65° to 85° F. at noon in the tropics. In the north temperature zone the thermocouple shows a winter range of -30° to -60° F., or nothing worse than Resolute Bay has to offer.

Its atmosphere is far from promising. It contains 1/1000 as much oxygen and 5% as much water vapour as does the Earth's.

The best present-day telescope, trained on Mars, cannot resolve an object less than 15 miles in diameter. Martian flying-saucer factories have therefore so far remained undetected.

Mars has two satellites, Phobos and Deimos, which are 15 miles and 5 to 8 miles in diameter, respectively.

Planetoids

Sometimes called asteroids, there are more than 1000 tiny planets whose orbits lie between Mars and Jupiter. The largest planetoid is Ceres, with a diameter of 480 miles. Its mean distance from the Sun is 255,000,000 miles. Among the smallest known is Eros, which is irregular in shape, varying from 8 to 10 miles wide and 25 to 30 miles long. Its mean distance from the Sun is 135,430,000 miles.

Jupiter

Jupiter is the largest of the nine known planets, with a diameter of 87,000 miles. Its temperature, at the surface of the perpetual cloud which covers it, is estimated at -266° F. Astronomers believe the surface temperature to be considerably higher, since the planet possibly possesses internal heat. The Jovian atmosphere is very dense and consists mainly of ammonia and methane. At closest opposition, Jupiter is about 367,000,000 miles from Earth, or 612 days' travel at 25,000 m.p.h. Jupiter has 12 satellites. Io is 2,450 miles in diameter; Europa, 2,050 miles; Ganymede, 3,560 miles; and Callisto, 3,350 miles. The other 8, all very much smaller, are referred to only by numbers, and the 12th moon (Jupiter XII) was discovered as recently as September 1951.

Saturn

The second largest planet, Saturn has a dia-

meter of 76,400 miles at the equator. So far as can be determined, its atmosphere is composed of ammonia and methane. The surface temperature is -311° F., but, like Jupiter, it probably possesses internal heat.

When Saturn is nearest the Earth, it is still 748,000,000 miles, or 1,247 days' travel, away from us.

This planet has 9 moons, of which the largest is Titan, with a diameter of 3,000 miles. The smallest and most remote is Phoebe; the nearest, Mimas. Saturn is, of course, chiefly famous for its system of rings. (These rings, by the way, are clearly discernable in the writer's 3″-reflector telescope. It is not possible to distinguish the division between the inner and centre rings, but Cassini's division between the centre and outer rings is sometimes observed.)

Uranus

Uranus, with an equatorial diameter of 31,800 miles, has an atmosphere similar to Jupiter's and Saturn's, a temperature at cloud surface of -340°F. and is 1,605,800,000 miles from Earth at nearest opposition. The 4 moons of Uranus are Oberon, Titania, Umbriel, and Ariel. They vary from 400 to 1,000 miles in diameter.

Neptune

32,000 miles in diameter, Neptune has an atmosphere similar to the previous three planets', a temperature of -364° F. on the cloud surface, and is 2,651,800,000 miles away. Neptune has only one moon, Triton, which has a diameter about the same as that of Luna.

Pluto

Pluto is the most distant known planet — 2,717,000,000 miles — and is only about 7,000 miles in diameter. It has a surface temperature of -400° F., and its atmosphere has a low albedo and may, therefore, be rare. A trip lasting 4,528 days at 25,000 m.p.h. would get you close enough to look at a satellite.

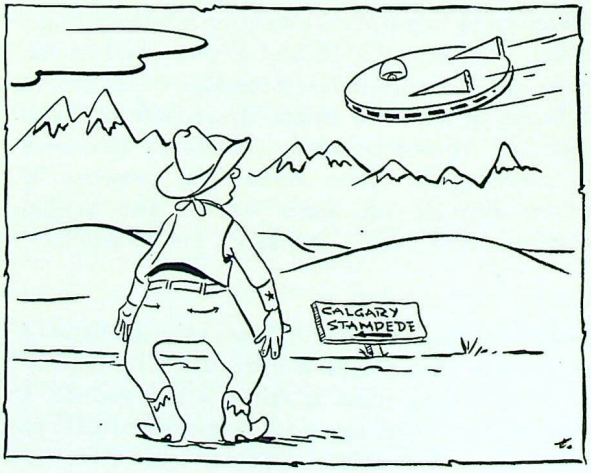
* * *

The foregoing very brief description of our neighbouring planets will serve to illustrate the futility of proposed junkets to all but Venus or Mars. Mercury is much too hot on one side and much too cold on the other. Jupiter, it is generally agreed, has a poisonous atmosphere and probably a frozen surface. Dr. Rupert Wildt has calculated that Jupiter's rocky core has a radius of 22,000 miles, covered by a coat of ice 16,000 miles deep, which in turn is covered by an ammonia and methane gas atmosphere 6,000 miles thick. This is only slightly less atmosphere than is to be found at Don the Beachcomber's.

What is true of Jupiter is believed to be true of the other giant planets, Saturn, Uranus, and Neptune. All are thought to have a heavy outer layer of ice and a dense poisonous atmosphere.

Satellites are plentiful but none are known to own an atmosphere. Those too distant for observation of atmosphere are too cold to be coped with by our type of life.

The atmosphere of Venus is believed to be composed of dust particles, since photographic plates sensitive to infra-red light fail to reveal Venus' surface (as they do Mars'). Absence of water vapour and oxygen, and the presence of dust clouds, are likely to place Venus fairly low on the list of alternate destinations for some time to come. If flying saucers are crewed by Venusians, and if their crews are ever compelled to leave their vehicle and step out into our atmosphere after a forced landing, Calgary should suit them nicely.



Mars, by elimination, is the only planet that offers conditions approaching those required by mammalian life. It is 15 days' travel farther away than Venus, but probably will still be the first planet visited by Willie Ley's disciples. Oxygen is known to be present and can be extracted from the thin atmosphere.

* * *

Who will be the R.C.A.F.'s first interplanetary crew?

Is it possible that, in October 1973, the Chief Radio Officer Instructor at No. 4 (T). O.T.U., Dorval Spaceport, will be cautioning his students to pre-flight-inspect their meteor-deflecting transmitters with extra care because of the likelihood of their Canadair Lunar Vehicle Mk. III encountering the annual Perseid swarm?

The answer lies (a) with science, and (b) with human nature.

FIRST COMET'S SERVICING DETACHMENT

L. to r.: L.A.C. V. F. Harnden, Cpl. R. E. Evans, Sgt. J. E. Fisher, Cpl. R. E. Andrews, Sgt. J. H. McLeod, Cpl. W. J. Williams, L.A.C. F. J. Holman.

What's the Score?

This month's questionnaire contains several questions to which the correct answers lie only in the unwritten pages of tradition. The answers to the others will be found either in C.A.P. 90 or A.F.P. 4. The members of the Editorial Committee have ably demonstrated their *savoir faire* by achieving an average score of 16. Correct answers appear on page 48.

★ ★ ★

1. The punctilious airman, upon finding himself in an elevator with a lady, will:
   (*a*) Remove his head-dress.
   (*b*) Salute upon entering and leaving the elevator.
   (*c*) Leave his head-dress on his head.
   (*d*) Give the lady an ardent glance.

2. A uniformed Flying Officer, who is walking along a street and meets a Wing Commander of his acquaintance in civilian clothes, should:
   (*a*) Look the other way.
   (*b*) Salute.
   (*c*) Give an eyes right or left.
   (*d*) Take to his heels.

3. If, on the other hand, the above Flying Officer is in civilian attire and embellished with a black homburg, he should:
   (*a*) Raise the homburg.
   (*b*) Touch his forelock.
   (*c*) Ignore the Wing Commander completely.
   (*d*) Cross the street.

4. On entering the ante-room of the officer's mess the aspiring Squadron Leader, will:
   (*a*) Stand briefly at attention.
   (*b*) Make a resounding click with his heels.
   (*c*) Salute.
   (*d*) Walk straight in.

5. A uniformed airman who is standing on a street corner when a civilian funeral passes, should:
   (*a*) Stand properly at ease.
   (*b*) Salute as the hearse passes.
   (*c*) Merely stand at attention.
   (*d*) Remove his head-dress.

6. When a coffee-bearing airman meets an officer in the corridor of a building, he should:
   (*a*) Salute.
   (*b*) Give an eyes right or left.
   (*c*) Drop his coffee.
   (*d*) Give no formal compliment.

7. When an airman and a junior officer, walking together, meet a Squadron Leader:
   (*a*) They both salute.
   (*b*) Only the junior officer salutes.
   (*c*) Only the airman salutes.
   (*d*) Neither salutes.

8. If a Pilot Officer and a Squadron Leader meet another Squadron Leader on the street:
   (*a*) Everyone salutes.
   (*b*) No one salutes.
   (*c*) The Pilot Officer salutes the approaching Squadron Leader.
   (*d*) The Squadron Leaders shake hands.

9. On those august occasions when an Air Commodore of the R.C.A.F. meets a Commodore of the R.C.N. on the street:
   (*a*) The Commodore salutes first.
   (*b*) The Air Commodore salutes first.
   (*c*) Neither salutes.
   (*d*) Each removes his head-dress.

10. A uniformed airman, on entering a church, should:
    (*a*) Remove his head-dress at the door.
    (*b*) Leave it (the head-dress) on until he reaches his seat.
    (*c*) Leave it on throughout the service.
    (*d*) Remove it only during the singing.

11. Accompanying a pair of young ladies down the street, the chivalrous Flying Officer will walk:
    (*a*) Between them.
    (*b*) On the outside.
    (*c*) On the inside.
    (*d*) Behind them.

12. Flying Officer Jones is introduced by a civilian to a civilian as:
    (*a*) "Flying Officer Jones."
    (*b*) "Mr. Jones."
    (*c*) "F/O Jones."
    (*d*) "Jones, a Flying Officer."

13. When Flying Officer Jones, accompanied by his wife at a social function in the mess, pays his respects to the senior officer present, he should:
    (*a*) Introduce his wife to the senior officer.
    (*b*) Introduce the senior officer to his wife.
    (*c*) Not introduce his wife at all.
    (*d*) Introduce himself to the senior officer's wife.

14. When two uniformed officers of equal rank are saluted by an airman, the salute is returned by:
    (*a*) Neither.
    (*b*) Both.
    (*c*) The officer nearest the airman.
    (*d*) The officer on the outside.

15. When a uniformed officer meets a military parade on the street, he should:
    (*a*) Salute as the parade passes.
    (*b*) Fall in with it as a supernumerary.
    (*c*) Simply stand at attention.
    (*d*) Ignore it completely.

16. An airman who happens to approach the flagpole as the ensign is being raised, should:
    (*a*) Walk off smartly in the other direction.
    (*b*) Stop, face the ensign, and salute.
    (*c*) Stand at attention.
    (*d*) Remove his head-dress.

17. An officer or airman, on entering the Adjutant's office, should:
    (*a*) Immediately take a seat.
    (*b*) Stand at attention only.
    (*c*) Salute.
    (*d*) Stand properly at ease.

18. During the playing of "O Canada" or "God Save the Queen," any officer or airman in uniform but not on parade, should:
    (*a*) Remove his head-dress.
    (*b*) Salute.
    (*c*) Merely stand at attention.
    (*d*) Stand at ease.

19. On meeting a lady of his acquaintance on the street, a uniformed officer should display his gallantry by:
    (*a*) Giving her an ardent glance.
    (*b*) Lifting his head-dress.
    (*c*) Bowing briefly from the waist.
    (*d*) Saluting in the normal manner.

20. All refined Air Force personnel, when dredging the last few spoonfuls from a plate of soup, will:
    (*a*) Tip the plate towards them.
    (*b*) Tip the plate in the estimated direction of A.F.H.Q.
    (*c*) Raise the plate to their lips.
    (*d*) Tip the plate away from them.

Feminine Gen

(The R.C.A.F. Coronation contingent numbered approximately 130 airmen, airwomen, and officers. One of the party was Corporal Winona McKee of Rockcliffe, who kept a brief diary from the day she was chosen to go until the Coronation was over. Being an R.C.A.F. photographer, she supplemented her notes with pictures. The second section of her diary will appear next month.—EDITOR.)

CORONATION DIARY

By Corporal Winona McKee

Tuesday April 21. One of the luckiest days of my life. Summoned to the O.C.'s office, I found to my amazement that I had been chosen to march in the Coronation Day Parade in London, England!

Still slightly dazed, I joined the rest of the Coronation contingent converging on Rockcliffe, to spend the next week or so drilling and marching, having inoculations, cleaning and pressing uniforms, packing, re-packing, writing the good news home, being photographed, and generally getting ready.

Finally we had our last parade when we were inspected by Air Vice-Marshal Wait, Air Member for Personnel. Then, with all details completed, we left . . . not forgetting to take along our paymaster, as we all had wonderful plans for shopping, sightseeing and travelling, on our own free time.

Oh yes . . . our "female" contingent consisted of Sqn. Ldr. Sylvia Evans of Edmonton; Nursing Sisters Joan Fitzgerald of Halifax and Claire Trepanier of Hull; Sergeants Kay Dutney of Ottawa and Isabel Millen of Vancouver; Corporals Lassie Volansky of Vancouver, Gladys Pledger of Toronto, and myself from Penticton; and Airwomen Jean Parker of Halifax, Helen Knott of Toronto, Cathie Sutherland of Calgary, Ethel Thomas of Vancouver, Marie Lawrence of Falmouth, N.S., and Gladys Burrows of Stewiacke, N.S.

Friday, May 1. Hello from aboard R.M.S. "Franconia"! The trip from Rockcliffe was fun. We sang all the way. Even the weather gave forth all it had . . . rain, that is, which lasted all the way to Quebec City. On stepping off the train at Quebec, photographers and reporters descended upon us from all directions and we began at last to believe we really *were* going to the Coronation. Even if our luggage was heavy as we marched up the gang-plank, our hearts were light.

On board ship, we soon discovered the good sailors in our group. Those who weren't, stayed in bed for two days.

We kept in shape by visits to the gymnasium, where we rowed, fenced, and "rode" horseback and camelback. There were also boat drills, constitutionals around and around the deck, and snoozes in deck chairs. The social agenda included bingo, tea-dancing, reading, gossiping, and playing gin rummy.

"The trip from Rockcliffe was fun."

" . . . flash of the kilts . . . "

Civilians, Navy, Army and Air Force — we were on our way to London to see the Queen.

Friday, May 8. Today we discovered Ireland. To one of our party, Kathleen Dutney, whose antecedents came from the "Ould Sod," it was a wondrous occasion indeed. She agreed with me that the water was green with shamrocks all over, that we could see Irish potatoes growing on the far hills, and that our honour guard of sea gulls wore the Royal Crest emblazoned on their breasts and shamrocks on each wing. I could hardly wait to see the plaid sea that washes the coast of Scotland.

Our cargo began coming up from the hold this morning. Included was an Austin, bearing, of all things, a B.C. license.

Today, too, we enjoyed the ship's farewell dinners and suppers.

In the afternoon we did a spot of expert pressing and polishing. Then we walked, ate our supper, and danced at our Farewell Ball in the evening, with straight arms in order to keep our jackets in press for tomorrow's parade.

Highlight of the evening was a Highland dance led by Lt. Col. Merritt, V.C. The skirl of the pipes, the colour and flash of the kilts, the laughter and happy spirits of all aboard, are things we will remember always about the good ship "Franconia."

Saturday, May 9. Up bright and early with breakfast at 7 o'clock. Through the portholes we caught our first glimpse of England . . . Liverpool, on a beautiful sunny day.

At breakfast, we took pictures of each other and our waiters. Alex, our special waiter and an authority on what was good for slightly seasick tummies, came in for particular attention.

Parade at 8:30. We assembled on the deck-tennis court, with everyone in full dress. A British Army officer inspected us as photographers swarmed the deck taking stills, T.V., movies, and press photos. Later we were inspected by the Lord Mayor of Liverpool, who was dressed in full morning attire. Bagpipe music played by Irish pipers from Liverpool marching on the deck below, furnished the background.

Following parade we picked up our luggage and marched down the ramp on to English soil. We had arrived!

We paraded to our first English train, spent English money for the first time to buy papers and magazines, and were off again.

L. to r.: L.A.W. Knott, Alex, L.A.W. Jean Parker, Cpl. McKee.

L. to r.: L.A.W. Marie Lawrence, Cpl. Winona McKee, L.A.W. Helen Knott.

We disembark.

Some of the things we noticed: the trains go very, very fast . . . the soft green countryside . . . the rows of brick homes with their many chimneys . . . the red double-decker buses we had heard so much about . . . And so to Kingston Gate Camp, Surrey, our home away from home. Right off we all agreed that England is a very beautiful country.

In Richmond Park.

On our first evening in England we all went into Kingston-on-Thames to window-shop. We had a bad time until we discovered when and where to cross the streets. At first we just ran like track stars and hoped for the best.

One thing we do notice is the extreme politeness and courtesy of everyone. Truck drivers (pardon—— lorry drivers) stop and wave us on, gallantly surrendering their rights to such obvious strangers.

Our station is lovely, surrounded by the great oaks that grow in beautiful and historic Richmond Park. As time went by we found the park an ideal place for picnics.

Sunday, May 10. Resting and more sightseeing today. Tomorrow we begin our drill in earnest. June 2 coming up.

(*To be concluded.*)

ROYAL CANADIAN AIR FORCE Association

MEMBERS-AT-LARGE

Approximately 3,600 persons have become members of the Association in the member-at-large category. In the majority of cases, the individual is placed in this category because there is not a Wing within reasonable distance of his or her home.

The Association is most appreciative of the support given by these members. Sometimes, however, it is considered that we neglect our members-at-large and, in so doing, lose a very potent striking force for furthering our objectives and strengthening the Association generally. Our only contact is through the pages of "The Roundel" and the few personal letters we may write from time to time.

This fall a membership campaign is being arranged and conducted by the Wings of the Association. The minimum objective is 3,000 new members.

It is our President's wish that members-at-large have their own membership campaign at the same time. If each such member would obtain one new member, the strength of our organization would be greatly increased. To ensure full support, membership application blanks will be mailed to each member-at-large.

National Headquarters are interested in becoming better acquainted with members-at-large and we would appreciate receiving letters expressing their views on the Association, with constructive suggestions for its betterment. It is proposed to publish as many of these letters as possible in our section of "The Roundel."

THANKS FROM THE R.C.A.F.

The following is an excerpt from a letter received from the Chief of the Air Staff:

"The A.M.P., Air Vice-Marshal F. G. Wait, has returned from temporary duty in the U.K. and continental Europe, and he reports that all R.C.A.F. formations and units were happy with the supply of books, newspapers, and other amenity material provided by the Air Force Association."

BACK FROM THE CORONATION

Mr. Graham Morrow, the official representative of the Association at the Coronation of Her Majesty Queen Elizabeth II, has written to express his appreciation of having been so honoured.

While in England, Mr. Morrow paid a visit to the R.A.F. Association's headquarters and has brought back many suggestions which should prove helpful in the administration of our own Association.

He was particularly interested in the Royal Air Force Escaping Society, an organization formed in 1945 as a means of expressing the gratitude of those members of the Allied Air Forces who were aided in escaping by the thousands of patriots on the Continent.

The membership is limited to former and serving members of the R.A.F., Dominion Air Forces, and those Allied Air Forces that served within the framework of the R.A.F. There are also 4,000 honorary members — the people who helped the R.A.F. in any theatre during 1940-1945.

Among the Society's declared aims are:

- To give permanent assistance to the widows and orphans of the men who lost their lives through assisting members of the Allied Air Forces.
- To assist helpers in any matters affecting their good relations with the British Commonwealth.

In the summer of 1952, over 50 children from the Continent were given a holiday in the British Isles to help foster the spirit of understanding to which the Society is pledged.

The Society was formed through the efforts of Lord Portal, then Chief of the Air Staff, who became the President of the organization. The Chairman is Air Marshal Sir Basil Embry, himself an escapee.

Once again we are grateful to Mr. Morrow for his untiring efforts on behalf of the Association.

SECOND SAINT JOHN AIR SHOW

Two thunder-like explosions marked the breaking of the sound barrier during the Second Annual Saint John Air Show at the Municipal Airport during the summer. The highly successful show was sponsored jointly by No. 250 (Saint John) Wing, the Fundy Flying Club, and Nos. 161 and 527 Air Cadet Squadrons.

More than 7,000 spectators watched with amazement the aerobatic display of a Sabre jet. Another highlight was the fly-past of a six-engined B-36 from the U.S.A.F. base at Limestone, Me.

The air arm of the Royal Canadian Navy also delighted the fans with the antics of its "Shearwater"-based helicopter.

The Hon. C. G. Power, the Hon. D. L. MacLaren, Lieutenant Governor of New Brunswick, and a number of other dignitaries, attended a reception in the Admiral Beatty Hotel in the evening following the show.

AIR SHOW AT FREDERICTON

Another successful air show took place again this summer at Fredericton, sponsored by No. 252 Wing.

Part of the display was provided by an independent air show company from Columbus, Ohio. Sabre jets from the Chatham base, manned by Korean veterans, provided a fly-past, and Lancasters from Greenwood also took part. The show ended with a special demonstration by the pilots of the aerial troupe.

Citizens were treated to a thrilling show, and full credit goes to the executive and members of No. 252 Wing for their fine effort.

YORK MINSTER MEMORIAL FUND

Air Vice-Marshal G. E. Brookes, C.B., O.B.E., Chairman of the York Minster Memorial Fund Committee, advises that the first contribution to the R.A.F. Central Fund has been made. The amount forwarded was £750, approximately 25% of the committee's minimum objective.

With the advent of renewed fall activity within the Association, Air Vice-Marshal Brookes has requested that all Wings which have not yet contributed give consideration to a campaign to raise funds for this worthy undertaking.

All donations should be forwarded to:

H. E. Langford, Honorary Treasurer
York Minster Memorial Fund
c/o Chartered Trust Company
34 King Street West
Toronto, Ontario

GRAND PRESIDENT VISITS TRURO

Air Vice-Marshal A. L. Morfee, C.B., C.B.E., was present at the opening ceremonies of the Ground Observer Corps Filter Centre at Truro, N.S. Addressing Wing members, he expressed the hope that they would take an active part in carrying out the work required by civilians to complete the organization.

No. 102 Wing entertained over 150 guests at their club rooms during the afternoon and evening.

NEW "WINGS AT HOME"

A new "Wings at Home" has made its appearance and has already been distributed to the Wings.

No. 252 Wing executive. Seated (l. to r.): I. A. O'Leary, 1st vice-pres.; J. C. Tonner, president; W. G. Sansom, 2nd vice-pres. Standing (l. to r.): J. Boone, F. Connelly; P. Burden; L. K. Newcombe, treasurer; Miss L. Foley, sec'y; R. Miles; J. Sancton. ("Daily Gleaner" photo.)

The publication has been changed completely in size and form, and one added feature is that pictures can now be used. It is to be published every two months to give a complete coverage of Wing activities.

To ensure the greatest possible success with the magazine, Wings are asked to make regular submissions covering their affairs.

WING ACTIVITIES

It is the usual custom for Wings to lessen their activities during the summer months and, for this reason, reports from the Wings will not be carried until the next issue of "The Roundel."

L. to r.: Flying Officer T. H. Collins, of A.F.H.Q.; Major Lombardi, U.S.A.F.; Flying Officer G. M. Gillespie, A.F.C., G.Ob.C.; Mrs. P. A. McLellan; Air Vice-Marshal Morfee.

Flt. Lts. E. S. Timbrell and W. C. Hewitt, at No. 30 A.M.B., Langar, England, check off reading-material sent by No. 305 Wing.

NO. 900 (ARDUA) WING

30 September, 1953.

The Secretary,
R.C.A.F.A. Headquarters.

Dear Sir:

Although we of No. 900 (Ardua) Wing have always been firm believers in *bon voyage* activities, unfortunately, due to our location inland, we had only been able to give moral support to this project.

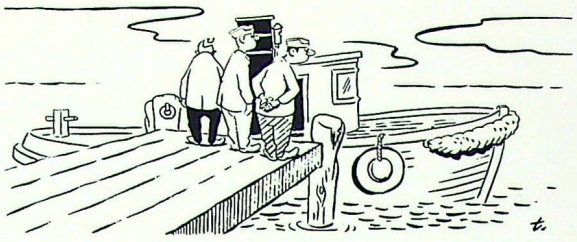
However, at a recent meeting, one of our more progressive members took the floor. He reviewed the whole programme to date, told what other Wings had done, and made us all feel more or less like a bunch of slackers. He was a very convincing talker and, almost before we knew it, we had agreed to charter a bus and make the journey to the port of embarkation to wish *bon voyage* to the next draft.

There were great preparations. There were the gifts to buy. There was the food necessary to carry us to the port and back again. There were refreshments to think about, as part of our journey would be over a very dusty road and through a section of land which was almost a desert. Committees were appointed to look after each separate item.

On the big day, we took off in tremendously high spirits, for not only were we going to have a bit of a trip, but we were also giving our full support to yet another of the many R.C.A.F.A. projects.

We had not gone far before the chairman of the refreshment committee began to complain of dust in his throat. He said he might lose his voice if something wasn't done in a hurry. By the time we'd cured him, the arid area had been reached and a considerable amount of fine sand was floating up through the floor of the bus, so it wasn't long until all but a few of us had begun to show the same symptoms. However, we finally arrived and were directed to the dock area by an amiable policeman.

The first sight of the ship tied up at the pier was a bit disappointing. It did not seem quite the



type of vessel, in size or condition, to make the Atlantic crossing. There were, however, certain compensations. From somewhere in the bowels of the ship came the rousing sounds of a brass band and loud noises of merry-making. Many of us thought back to war-time departures and we were pleased that even now there was at least music and song to send them on their way.

The chairman of the *bon voyage* committee finally located a member of the crew, and after telling him that we planned a surprise for some of the passengers, we were directed to a small lounge where we began to open the packages and prepare for distribution.

We were getting along nicely when, all of a sudden, one of our more observant members shouted something to the effect that we were afloat. Sure enough we were. We had been shanghaied and were already well out to sea.

This, as every dark cloud, had its silver lining. It turned out that we had simply come aboard the wrong ship and were taking part in the annual cruise of the Fraternal Order of Antelopes. This is a very friendly organization and they made us feel completely at home. We cruised up and down the coast all day, took part in their numerous activities, and had a wonderful time.

The ship docked just after dark. Before taking our leave, we distributed our gifts to the assembled Antelopes who came in a body to the bus to wish us all *bon voyage* on our journey home.

Yours, with Air Power,

Corresponding Secretary,
No. 900 (Ardua) Wing.

A few thoughts on THE R.C.A.F. RESERVE

(The following remarks are extracted from a talk given early last summer in Toronto by Air Marshal W. A. Curtis, C.B., C.B.E., D.S.C., who retired as Chief of the Air Staff in January of this year. Though addressed specifically to No. 400 Squadron, they will undoubtedly be of great interest to members of the Reserve throughout Canada.—EDITOR.)

I HAVE ALWAYS regarded myself as a Reserve officer doing Regular duty for a longer than usual period. I don't know why I should have felt that way, but I did. Since the First World War, I have spent over sixteen years on full-time duty, against twenty-five years in the business world. During that twenty-five years, I was a Reserve officer for sixteen years, divided equally between the Army and the Air Force.

It was not that I objected to being considered a Regular officer, but I felt that, since I had not served as a full-time officer in the rank of Flight Lieutenant, Squadron Leader, and Wing Commander, I should not give anyone the impression that I had a hundred-per-cent military background with the customary staff courses.

My business training and sixteen years' Reserve training gave me a certain type of experience that career officers do not receive. I hoped that the type of training I had would compensate for the lack of the hundred-per-cent military background. This is an excellent opportunity for me to tell you, the officers past and present of the Reserve squadron I belonged to before the war, and other officers of the Air Force, some things that I found it difficult to say while I was C.A.S.

The R.C.A.F. is most fortunate that the officers who, in the late twenties, laid down the standards of efficiency and requirements for young officers entering the Service, did such a good job. The policy established then is responsible for the basic training which turned out the senior officers in charge of the Air Force today. They are not only well trained but, broadminded and blessed with good judgment.

In the last thirteen years, during which I have been an active officer on full-time duty, I have received the greatest co-operation and support from all ranks. It might be thought that some would resent a Reserve officer holding such a senior position. That was not evident in any way at any time. In fact, the opposite was the case. Senior officers who stood to lose out in promotion, or who might never become C.A.S. because of my filling that position, urged me to remain on.

I had the definite feeling that both officers and men were one hundred per cent behind me at all times. I am very happy with and proud of my experience in the R.C.A.F. No man has received better treatment from his Service than I, and I will gladly perform any duty they may request of me at any time without thought of remuneration or inconvenience to my own plans.

Reserve officers and airmen play a very important rôle in our defence set-up — a much more important rôle than is realized by some junior personnel of both the Reserve and Regular Force. The longer a man serves in the Air Force, the broader his experience, and the greater becomes his appreciation of all its branches. The Reserve Force is one of its important branches.

I assure you that all the senior officers attach a great deal of importance to our Reserve set-up. They are most anxious to have it up to strength and operational at all times.

They are concerned about your equipment, and, within the limits of money and equipment available, do everything possible to keep you up to date. There have been so many things to do over the last five or six years that it has not been possible to tackle everything at one time. For instance, the new Reserve training building that is under construction next door was included in our estimates for at least three years before we

were able to fit it into the overall plan of work to be started within the fiscal year. However, it is under way now and its completion will make it possible for our Reserve radar training in the Toronto area to meet its planned task.

The job of getting out plans for all the new buildings that have been erected over the last four or five years, taxed our facilities to the limit. We employed civilian architects, engineers and consultants, in every possible way, but their work had to be directed, and checked. That required a lot of experienced officers in our construction branch. We had only a few construction engineers in the Service and they had to work nights, Sundays, and holidays.

Many other officers and men worked nights, Sundays, and holidays (without overtime, too). Our planners and financial staffs, who worked out the costs of the plans, worked all day and all night on many occasions—particularly when the Korean War broke out — and again when we had to make submissions on our N.A.T.O. plans.

Remember, we started the Air Force expansion with some twelve thousand men. Our strength is now well over forty thousand. All these new men and women had to be recruited, medically examined, sorted out, and trained. When a Canadian business expands rapidly, some additional experienced personnel are brought into the organization, either from within Canada, or from the U.S., the U.K., or Europe. We could not do that. We had to train our teachers as well as students. I say "we" because I still am, and always will be, a part of the R.C.A.F.

When I accepted the appointment as C.A.S., I did it with some concern, as I realized that it was a great responsibility. I have always felt that it is one of the most important and responsible jobs in the country . . . If the Air Force in this atomic age is not capable of doing its allotted task immediately, and properly, a war could be lost before the other Services could strike a blow.

—*"I felt that the job required a man with the knowledge and judgment to decide upon the proper course, the courage to undertake the programme and the ability to carry it through."*—

That was a tough specification to try to fill, and only time will tell whether the programme was the proper one.

When I became C.A.S. I really thought that two years would be my term. In fact, at the end of two years I spoke to the Minister about stepping aside for one of the younger Air Vice-Marshals.

The Air Force is blessed with a goodly number of very able senior officers, and it would be unfair for any one officer to remain in the C.A.S.'s chair too long. Each new encumbent of that post will bring new ideas, new enthusiasm, and I hope will keep the R.C.A.F. in the forefront.

Let's Stick Our Necks Out!

Theoretically, at least, the pressure necessary to push blood up a giraffe's long neck and to force it through the tiny capillaries in the brain in quantities sufficient to maintain mammalian brain function would mean that the giraffe normally lives in a constant state of high blood pressure that would kill any other animal, including man.

An understanding of how tissues of the giraffe's heart and arteries stand up under such supposed pressures may help solve the increasing problem of blackouts by military pilots flying high-speed aircraft.

(*"The New York Times"*)

OF MEN AND MOTIONS ★ ★ ★

By Sgt. R. H. Chilton

THIS TREATISE is dedicated to members of R.C.A.F. messes, without whose attendance at innumerable meetings it could never have been written. Any resemblance to persons living or in the permanent force is purely intentional.

* * *

Once a month I take our senior Corporal aside and gravely inform him that he will be in charge for the next hour and a half. Then, having convinced my O.C. that I would rather stay and work, I become one of a mob of N.C.O.s straggling in the direction of the mess.

Once a month on every Air Force station, all airmen from Sergeant to W.O.1 gather together to perform what is known as a General Mess Meeting. The purpose of such meetings is to take care of things that they have already elected committees to take care of. Although a General Mess Meeting is a C.O.'s parade, the underlying reason for the members' enthusiastic attendance is the profound — almost religious — interest they take in the welfare of the mess. There is also, of course, the possibility of a free round . . .

After much ushering and herding, the bar is eventually closed, and all members are assembled in one room. A few minutes' pounding on the presidential table brings the meeting to order, and the performance begins.

The P.M.C. can dispense with the roll call, or he can call the roll and then dispense with it. As soon as he has done the one thing or the other, the minutes of the last meeting are read. At this point many members, who now hear their motions of a month ago rephrased and expurgated by a clean-minded secretary, are astonished by their own unsuspected powers of expression.

We now come to our first character. His favorite phrase is "I so move," with "I'll second it" running a close second. He has, needless to say, never put forward a constructive motion in his life. His mania is getting his name in the minutes. This, for him, represents graduation from the washroom wall. Thus, when the P.M.C. asks for someone to move that the minutes be adopted, etc., the secretary is already writing down his name.

Next comes the Financial Statement — which some members maintain to be written in a code known only to the accounts section. This brings to light our second character, who follows the statement like a tiger stalking its prey. He can be counted upon to vote against any expenditure whatsoever, whether it be for the purchase of sweaters for the mess chess team or a gift for a dying member. He regards himself as the steadying influence in the mess, the Gibraltar against which any wave of extravagence must break in vain.

Follows a general discussion of new business. This is where our third character makes himself felt. For the next thirty minutes he will be in a semi-crouched position of eager alertness or standing erect and waving his arms. He will argue, rebut, rebut rebuttals, and amend any motion that is made. Even when the meeting has been restored to its normal din, he will get in the last blow by asking to have his amendment read before the voting takes place. Finally, of course, he forgets to vote.

The next item on the agenda is the election of officers. The announcement of this fact has the same effect as an order to fall in for inspection. Everyone mentally assumes a centre-rank position. Everyone, that is, except our fourth character. He loves to nominate. Nomination, he figures, is his contribution to the mess. A veteran campaign manager, he manages to get a nominee for each office. One can't afford to like him or dislike him. It is quite common in some messes to railroad an active member into office. This feat is accomplished by three people leaping to their feet in unison and shouting out: "I nominate . . . ", "I move nominations cease," "I second it." The P.M.C. then coughs. All members but one immediately reach for the ceiling, and the elected victim is left with mingled feelings of frustration and bewilderment.

(In *our* mess, in order to avoid such railroading, we insist upon more than one nominee for each office. Then, and only then, do we railroad the individual of our choice. We have had one N.C.O. in office as Bar Member for so long that when he shakes hands you would swear he was gripping a bottle.)

By this time a growing air of restlessness becomes apparent. Members begin to shift about in their chairs and cast frequent glances at the bar. At last, when the P.M.C. is unable to ignore it any longer, he calls for a motion to adjourn.

This is when our first character again has an opportunity to display his talents. He must outmanoeuvre two or three members who came in late and want it on the records that they attended — but they haven't got a chance. The secretary already has "I so move" down on the minutes.

Letters to the Editor ★ ★ ★

NEW CAP BADGE

Dear Sir:

I wish to protest the indignity inflicted on airmen and airwomen by the adoption of our new cap badge.

In the past we had a badge which, by means of the initials R.C.A.F., laurel leaves and a crown, proclaimed to the world at large that we were members of the Royal Canadian Air Force.

Now what do we have? A plain albatross without even a crown to signify that we are members of one of Her Majesty's Forces — and no initials to indicate that the badge is anything more than a piece of costume jewelry picked up at the local five-and-ten!

Even the Air Cadets rate a maple leaf and the name of their organization on their cap badges. Why should the men and women of the Regular R.C.A.F. not have a cap badge which shows that they belong to the Royal Canadian Air Force and proud of it?

Possibly, Sir, Sgt. Shatterproof might be induced to make known to the Brass the feelings of the boys in the field about this matter.

Cpl. C. E. Strange,
No. 445 (A.W.) Squadron.

(We learn through the grapevine that the old wardog's pre-prandial turned to lemonade in his mouth when Cpl. Strange's words were reported to him. Instantly rampant with a cry of "On to Ottawa!", he was, however, persuaded by L.A.C. Bladder to elicit the required answers by a few stiff memos rather than at the point of the sword. Having intercepted the replies sent to him from the Directorate of Personnel Administration, we gather that the reason for adoption of the new cap badge is that the old badge was considered too heavy and cumbersome for airmen's wedge caps and for the caps approved for women personnel. Sgt. Shatterproof was at the same time reminded that the word "CANADA" appears on our shoulder-patches, that tunic buttons all bear the letters "R.C.A.F.", and that the eagle — or, if preferred, albatross or albatreagle — traditionally denotes any of the Commonwealth's Royal Air Forces. — EDITOR.)

★ ★ ★

Answers to "What's the Score?"

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

★ ★ ★

Eat and drink with your friends, but do not trade with them. (Turkish proverb.)

IT WAS A 'PLANE

IT WAS a 'plane adrift beneath the moon
upon a sea of clouds; it slid through beams
serenely as an angel of the night,
faint as a song,
aloof from mortal dreams.

Now Navigator,
scribe, compassing the starry tides of flight,
bowing to candid estimate of lives
and tracks-made-good upon a squared mercator,
what is your destiny in dead reckoning?
Will you make base tonight,
mission completed, or will these arrowed lines
run without intersection off the page
to pinpoint past the aerodrome of day
on the unknown, unfathomed E.T.A.?

Aldebaran looks down upon your course
and mortal ways, immortally unconcerned
whether this night, the target prang'd, you made
your homeward journey safe; and you, back turned,
balance the abstract verities of wind and drift,
log how a city burned.

On astral tides adrift beneath the moon
there beat three lives within the engines' song,
measured in failing fuel, minutes of flight,
dreams on a wireless
a code-word long.

Hello! Hello!
Land's End Observer Corps?
We have a craft last heard from in distress
bearing your way with seven minutes' fuel,
losing height slowly, instruments gone u/s.
Green Charlie from . . . hello . . . yes, series of red
fired the minute they see land ahead.
Keep in close touch with
— Damn!
the line's gone dead.

It was a song that slipped beneath the moon
upon a sea of clouds; it slid through beams
serenely as an angel of the Night,
faint as a star
aloof from mortal dreams.

Tom Farley
(courtesy The Ryerson Press)


The
ROUNDEL