

# The **CROWNDDEL**

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APRIL 1953



**ROYAL CANADIAN AIR FORCE**

read this first



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*This Month's Cover*



Seagulls playing over Lancasters of No. 405 Squadron during recent anti-submarine exercises off the coast of Florida.  
(Photograph by W.O.2 D. E. Sankey, B.E.M., of R.C.A.F. Public Relations.)

EDITORIAL OFFICES:  
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Ottawa, Ont.

# *A Message from the C.A.S.*

In this, my first message to all members of the Royal Canadian Air Force, I would be most remiss were I not first of all to acknowledge the tremendous achievements of my predecessor, Air Marshal Curtis. The responsibility which has been given me has been made infinitely easier by virtue of the splendid organization which was developed largely through his personal efforts.

In assuming the duties of Chief of the Air Staff, I am most conscious of the heavy responsibility that goes with this honour. It is an appointment that no one individual can discharge by himself: it requires the united efforts of all members of the R.C.A.F. To this end I could not ask less for our country than the complete and unflagging devotion of all members of our Service. This



concept of duty is not new to personnel of the R.C.A.F., but it is one, I think, of which we must remind ourselves constantly in order to ensure that we give in service nothing less than the maximum in effort, devotion, and integrity.

Above all, we must remember that we are a military Service dedicated to the defence of our country and our people. While not the final measure of our effectiveness in fulfilling this rôle, our appearance and deportment are true indications of our willingness to accept it. Let us not, therefore, be found wanting in these qualities any more than in any other.

C. R. Slemon,  
Air Marshal,  
Chief of the Air Staff



# SGT. SHATTERPROOF IS NOT UNMOVED

Sir:

I have recently received a petition\* from a group of those dedicated women who have sacrificed their all in order to set their shoulders beneath the tottering structure of our Service. Marooned in a world of men whose stern devotion to duty leaves them no time for dalliance, they bloom in vain, like roses in a desert. Yet they who have given so much ask so little in return. They ask only that the feminine angle be accorded recognition in "The Roundel."

I am not unmoved, Sir, by the plight of these forgotten ladies. But I will not say that I am surprised. As you well know, I have long fought for the inclusion of a seasoning of cheesecake in the somewhat untasty fare offered by the R.C.A.F.'s official organ. I have, however, fought in vain. No outstanding limbs, no torsos of distinction, have ever found their way into its uncompromising pages. And worse still, Sir, both you and the Brass have actually been shocked by my pleas. "Can it be," you have asked yourselves, "that Shatterproof grows prurient? Can it be that the old campaigner has at last succumbed to the lure of the flesh-pots? Has that Paladin of Chivalry finally degenerated into a mere Knight of the Garter?" I think that henceforth you will ask yourselves no more such questions. The Airwomen of Barrack Block 17 have vindicated, not Shatterproof the Debauchee, but Shatterproof the Athenian, the Apostle of the Body Beautiful.

None the less, I confess myself a little puzzled by the phrasing of their petition. Personally, I would have expected them to seek appreciation of other things than their angles. Indeed, in those airwomen who have caught my eye—and held it—there have been no angles. Nor, to tell the truth, do I feel that the revelation of feminine angles

would do very much to enhance that high esteem in which our airwomen are already held. However, tastes change with each decade, and it is not for a battle-scarred old warrior like me to decide whether the straight line or the curve is more likely to win acclaim from the boys in the field of this day and age. I am willing to leave the decision to the girls in the field. They, if anyone, should know.

I enclose a list of the types of angle which the Airwomen of Barrack Block 17 have in mind. It was attached to their letter. I have not read it; for, operating as I do at the executive level, I am concerned with broad policies rather than with the details of their implementation. After you have, as usual, scrutinized the list for pornography or leftist tendencies, I trust that you will see your way clear to print it on the inside of the back cover of the April issue. Who knows but what it may be the torch that is destined to fire our Service with new life? (And, Sir, should the Brass not instantly acknowledge the justice of these ladies' cause, let them remember that Hell hath no fury like a woman scorned.)

And now we must leave the tender subject of the Sex and turn to less palatable matters. I note that, according to the February issue of "The Roundel," Group Captain A. P. Blair was transferred in November from Summerside to Claresholm, Alberta. I have no objection—nor has any thinking member of the R.C.A.F.—to the transfer of Group Captain Blair to any place where his talents may best be employed in the service of Her Majesty. But, Sir, Group Captain Blair has no talents. He has no talents—for the simple reason that he has no body in which to house them. With my hand upon my sword-hilt, I therefore throw down the gage at the feet of the

\*See "Cpl. Twitterwhistle Writes a Letter."—Editor.



distracted by the hunting-horn of Flight Lieutenant Oglebody's M.G., which emerged yesterday from its hibernation and which is at the moment emitting an uninterrupted serenade on one note outside the nursing-sisters' quarters. (The advent to the station last month of Nursing-Sister Bussable has not contributed to the general atmosphere of calm. Even that phlegmatic young gentleman, Flying Officer Backflip, the Sports Officer, has latterly been neglecting his weight-lifting in order to teach her the rudiments of swimming in the station pool.) Furthermore, there lurks in the back of my mind the knowledge that I shall have trouble with Miss Clasper when I go to dine with Farmer Fetlock next Sunday. But, Sir, I am resolved that not all the sighs and simpers in the world shall this year divert me from my victuals. I would be unworthy of the trust reposed in me if I again jeopardized my constitution by limiting myself to the Mess diet for the next five weeks.

*Shatterproof*

Brass and hereby challenge them, under the Habeas Corpus Act, to produce the person of Group Captain A. P. Blair. If they fail to do so (as fail they must), we can lose no time in sounding the tocsin that will alert our Civil Defence from sea to sea. Even now an impostor from the Kremlin may be moving with impunity among our personnel, charting the course of missiles that may one day rain down atomic destruction upon the western centres of our industry and our culture.\*

I would pursue the foregoing matter further but for the fact that I am having some difficulty in concentrating on this *communiqué*. Quite apart from the restlessness experienced by all us young men with the coming of Spring, I am constantly

P.S. Just as I was addressing the envelope for this letter, I was interrupted by Cpl. Spyder, evidently in a state of considerable agitation. He had come to advise me that the Spring was, as usual, proving too much for LAC Bladder, and that he was "at it again." Hurrying out, I discovered that gifted but highly-strung young airman capering about inside the railings that separate the station from the highway. That, in itself, was bad enough from a public relations point of view, but worse — far worse — were the flute-like mating-cries which he kept uttering at female passers-by. We overpowered him and led him back to his quarters, where Flight Lieutenant Airlift, the padre, is now having a man-to-man talk with him about the birds and the bees.

\*Sgt. Shatterproof is asked to pick up his gage. A coding error was made at A.F.H.Q. which included W.O.2 A. P. Blair's name with those of the Group Captains. Since W.O.2 Blair is an able and loyal servant of Her Majesty, we do not feel it necessary to evacuate Calgary or Lethbridge just yet.— Editor.

# IKE'S DEPUTY

A Review Article by Captain Donald M. R. Vince, R.C.E.

*"... transcendent common sense, the rare power... of seeing things as they are, which, whether it be granted to soldier, statesman, or artist, signifies genius. Those who possess this insight see clearly at a glance many things that puzzle other men. Seeing clearly they can decide promptly, and deciding promptly they can act immediately. Add to this endowment inexhaustible patience, unwearied industry, and absolute straightforwardness and integrity; and there is a combination of human forces which must carry a man very far..."*  
(Hon. Sir John Fortescue: Wellington)

WE TEND to think of the typical, the classic, type of air commander as having inherited some of the characteristics of the cavalry general. We think of him as physically impressive, dashing, egotistical, magnetic, and daring to the point of rashness. But this is not the only type. Specifically, as Roderic Owen\* has made clear in his book, it is not the pattern of Marshal of the Royal Air Force Tedder of Glenguin, G.C.B., M.A. (Cantab.), LL.D., D.C.L., Chancellor of the University of Cambridge. In fact, although Tedder, as Deputy Supreme Commander, S.H.A.E.F., commanded some of the greatest air fleets ever assembled, the pattern of Supreme Allied Commander, set by Eisenhower and his Deputy, is almost a direct negation of those flamboyant qualities of high command. Tact, quiet charm, an unassuming nature, immense patience and great integrity, are more important. Tedder, over a lengthy Service career, developed them all.

This orthodox Englishman came from a completely sensible middle-class English background. His grandfather had been a grocer, his father a civil servant, his uncle the librarian of the Athenaeum. In the remote past there lurked a really formidable ancestor. The original of Tedder was Tudor; but "Henry Tedder VIII is an ancestor we don't care to mention."

In Tedder's words, his mother "... was a martinet in every sense of the word, and at times ridiculously fussy. I was never very close to either of (my parents)... although later on I came into quite close contact with my father. He was more human. At least he had a human side to him, though I hear that officially in the Civil Service he could be a tough opponent."

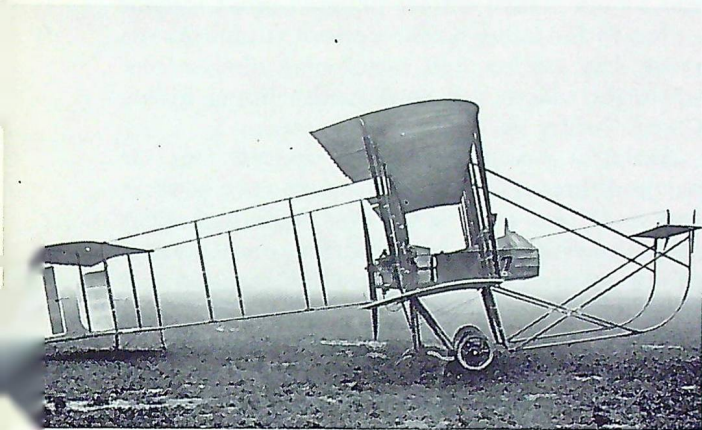
*Air Chief Marshal Sir Arthur Tedder at his desk in his trailer caravan in North Africa.*



\*Roderic Owen: *Tedder*. Collins, Toronto, 1952. 296 pp. \$4.50.



*The F.E.2B, a training-aircraft used by Tedder.*



*The Maurice Farman "Longhorn", on which Tedder did his initial training.*

Arthur was born in July 1890, when the family was in Glenguin, Stirlingshire. Thus, this typical Englishman always considered himself a Scot. Although the family was without private means, young Arthur's early life passed in an atmosphere of modest comfort. Some of his happiest years were spent, as he was passing from babyhood to boyhood, in Lerwick in the Shetlands. And young as he was, he began to draw and paint, a hobby which he continues to follow to this day.

The little boy was shy, painfully shy: "so shy that when he first went to school he hid under the table and wouldn't say a word. So his sister had to come and sit in an arm-chair in front of him." When the family moved to London and he was sent to Whitgift Grammar School, he was too reserved to tell his parents that the kilt was not accepted dress at an English school. Arthur had always worn a kilt, and his parents, "truly Scottish in thought," would not waste garments. As a result, his first year in London must have passed

in a degree of agony that only those can appreciate who know the rigid conformist attitude of the English Public School boy.

At Whitgift he was not particularly good at sports. Neither cricket nor rugby had much appeal for him. He participated in other activities, but seldom distinguished himself save in the School Cadet Corps. There he was "genuinely outstanding."

It was natural, then, that when he went up to Cambridge he should take a keen interest in the University Officers' Training Corps. He rowed passably well, got a Half-Blue in cross-country running, and finally made 2nd Class Honours in the Historical Tripos. During his undergraduate life money was a problem and he was compelled to excuse his expenditures: "I am afraid you will think that I have been throwing money about; but I have been paying the grocer's bill weekly . . . I enclose a rough list of my expenses to show where the money has gone so horribly quickly . . ." He stayed on within the red brick walls of Magdalene for a fourth year, did historical research in naval history, and produced an essay which won the Prince Consort's Prize and later became a book, *The Navy of the Restoration*.\*

Then, in the summer of 1913, Arthur Tedder, B.A., found himself face to face with the choice of a career. This presented difficulties. The fact that he was 23 eliminated the Royal Navy. The fact that he lacked 1st Class Honours virtually excluded him from the ancient universities, the Home or Indian Civil Service, the bar, and politics. The fact that he lacked money barred the Diplomatic Service and the Army. There remained the Church (for which he had no inclination), a provincial or Dominion university, or the Colonial Service. He applied for university vacancies with no result, until finally the Colonial Service proffered a cadetship in Fiji. This was hardly a plum, but it was at least better than the Solomon Islands, and, besides, it was close to Australia. This last was important. During a holiday spent in Berlin, he had fallen in love with Rosalinde,

\*For information on Cambridge which Mr. Owen does not include, I am indebted to W. N. A. Chipman, A. DeW. Mathewson, D. Morgan, and R. Stevenson.



a charming and spirited Australian girl. It was with thoughts of her to buoy his spirits that he sailed for the South Pacific. His family worried, as families sometimes do, over the dangers of drink and cards. "His father, therefore, handed him a document entitled 'A few golden rules for guidance to a young official entering the Public Service, by an old public servant of 45 years' standing.'"

He crossed to New York, travelled across Canada, sailed from Vancouver, and landed at Suva in the middle of March. It had been a pleasant holiday. There had been a piano to play and he had seen part of the world.

\* \* \*

Tedder liked Fiji. He lived in a house with two other bachelors, carefully varnished his books' covers against the black spots of mildew, and became part of colonial society.

Four months passed pleasantly. Then, in July 1914, while Tedder was at Lautoka assisting the District Commissioner, Archduke Franz Ferdinand was assassinated in Sarajevo. In August, Great Britain declared war. Tedder went into a rare frenzy:

"'It's simply ghastly being stuck out here, hearing nothing, knowing nothing, doing nothing. The news of the war came through to us by telephone yesterday. I thought things over and then sent a letter by the mail that night to the Colonial Secretary, asking for special leave to join any troops being sent from Australia. I can't stand the idea of staying here.'"

The application was refused. Tedder resigned. It was a serious, even a fatal step, when the war seemed certain to be over by Christmas. But, undeterred by official pressure or threats, he sailed for Australia in September. He had to refund his passage money, and it cost Tedder £77 18s. 9d — and his first career — to go to the First World War.

It soon appeared that going to war was not as simple as it had seemed in Fiji. All Australia wanted to enlist, and there was no place for "a foreigner from home." Accordingly he sailed for the United Kingdom, where he was commissioned as a Regular 2nd Lieutenant in the Dorsetshire Regiment. Tedder was a soldier for less than two

months. In February, 1915, while still in training, he tripped over a wire and injured his knee. Disregard for the R.M.O.'s advice did not improve matters (Cadet D. D. Eisenhower in the U.S. Military Academy at West Point was being similarly recalcitrant at the same time), and as a result he was told he could not go to France. This was serious — two careers blighted in six months — but within a day he had decided to launch on a third. His mother had heard of a similar case where the officer had gone to the Royal Flying Corps. Tedder decided to do the same.

Again he became entangled in red tape. It required three separate applications (two of them were lost), two visits to the War Office, numerous medical certificates, and written proof of his ability to read a map before his transfer was unexpectedly approved. He was promptly posted to No. 1 School of Aeronautics at Reading.

The course there was uncongenial. Mechanical matters had never interested him, yet he was expected to learn the innermost secrets of no less than five different engines. However, aero engines were comparatively simple in 1916, and Tedder passed the course well — helped by exact phrases and sketches to illustrate points.

His next posting was to No. 25 Squadron at Thetford, for flying training.

"It was a glamorous unit; pilots often took 'presentation' aircraft into the air, gifts from Zanzibar, South Australia, even from the Board of Trade, Montreal . . . Tedder was lucky to be trained by them; many an earlier pilot had had to pay for his own training by hiring the services of two Swiss instructors at Hendon, then still a private field. Aero Club certificates could be obtained by anyone (suitable of course in other directions) who could take off, climb, do a figure of eight, land, take off again, climb to 500 feet and land within 50 feet of a marker. And in case the latter turned out to be too hard a provision, the marker often mysteriously managed to 'move itself' a little nearer the hopeful pupil."

Tedder did circuits and bumps one spring afternoon and was warned to prepare for his first solo that evening. This flight was enlivened by a stall; but he escaped the consequences of ignorance,

made circuits and bumps all the next day, and was told that evening "that he needn't go up again, since he wouldn't learn anything more . . . and his log-book was endorsed 'Flies Maurice Farman well and confidently.'"

Tedder had then to convert to the FE-2b, a two-seater fighter reconnaissance aircraft with a pusher engine. It was a primitive era: "They took to the air with Bradshaw's railway guide and hoped for the best. Tedder's first cross-country took place on a typical English day in May, a day of bright sunshine masked intermittently by great cumulus clouds drifting across the sky . . . He knew nothing about thunder storms; so on meeting one he flew straight through . . . For ten minutes he was rattled about in a world of dirty cotton-wool before emerging, dazed, on the other side . . . He told his story with some pride, only to be reprimanded for taking unnecessary risks . . ." Nevertheless, he was promoted to Captain, and left for France.

Tedder's experiences between 1916 and 1918 held little of dash or glamour. Not only was his temperament different from his comrades'; he was older, better educated, and more experienced than they. He was also in the sobering process of becoming a father. (Rosalinde had become Mrs. Tedder in 1915, while he was in the middle of his struggle to transfer to the R.F.C., and until her death in a 'plane crash in 1943, when Tedder was A.O.C.-in-C. Mediterranean Air Command, she was his constant companion.) The only distinctions the present had to offer were the Squadron's celebration of his book's publication, his appointment as commander of No. 70 Squadron, and his promotion to Major.

The reasons for the celebration were simple. Reviews of *The Navy of the Restoration* reached France; the Mess felt that something had to be done about the highbrow in their midst; and since they were secretly rather proud of him, they "raided an instrument shop and brought back a cornet, a trombone, a dulcimer, a fiddle . . . tin whistles and a kettledrum, upon which they performed indifferently but with gusto."

The reasons for his promotion to No. 70 Squadron were more complex. They rested in the mind of Lord Trenchard:



*The Sopwith "1½-strutter", used by No. 70 Squadron of which Tedder was C.O.*

"I wanted every type of man for my commanders. I wanted the well-read and the un-read, the mechanics, the artists, the practical men, the dreamers, the philistines, even the cranks . . . (Tedder) was someone with a practical grasp of a situation and someone upon whom one could rely. He had the turn of mind which doesn't work everything out down to the smallest detail but sees the essentials. One felt here is a man who is naturally accurate yet who isn't obsessed like most of these types with the idea that everyone is a fool who doesn't agree with him."

His new squadron thought differently — "Very quiet," "most unimpressive," "a wet blanket." None the less Tedder made his mark (and justified Trenchard), but by quietly efficient administration on the ground rather than by flashy fighting in the air. When he left No. 70 and its Sopwith one-and-a-half strutters to go home on leave, he took along a solid reputation.

In England he saw Rosalinde and his new son Dick, and took command of a training squadron. Then he was posted to Cairo to run a Bombing and Navigation School. His ship was torpedoed en route, but some 200 of the men on board were picked up by a Japanese destroyer. Tedder reached Egypt safely and stayed until 1919.

\* \* \*

Returning home, he became a Squadron Leader 'Aeroplanes' and O.C. No. 207 Squadron, where he had a chance to participate in the trial-bombing of H.M.S. *Agamemnon* (Billy Mitchell had recently sunk the *Ostfriesland* in a similar Navy v. Air Force Test). Tedder's experience was not

dramatic. The D.H.9a in which he flew as bomb aimer came down in the sea, and once again he was rescued, somewhat ironically, by a destroyer.

In September 1922, Tedder took his squadron to Turkey for the Chanak incident. But Mr. Mackenzie King and General Sir Charles Harington together dampened Mr. Lloyd George's bellicosity; and there was no war. Tedder returned home in the following August to attend the Royal Naval Staff College.

Greenwich was no novelty to a student of Samuel Pepys. The naval atmosphere was congenial, and he passed the course successfully. By 1924 he was a Wing Commander, thirty-four years old, eligible for promotion to higher rank, and likely — in due course and with ordinary luck — to become an Air Commodore. Thus he assessed his own chances when he was posted to command a Flying Training School at Digby.

It was at Digby that he disclosed, for the first and last time, the character of a martinet, an addiction to 'smartness' that he must have acquired from his mother. Previously he had been rather lax in dress — "his trousers always an inch too short and his cap filthy" — a direct inheritance from Cambridge, where a dirty sports jacket is a rule and a pressed pair of trousers a sight. At Digby there was a saying "that the two things to be saluted immediately were Tedder and his boots; and that the boots shone the brighter of the two." He was an odd martinet though, one of the most unusual the R.A.F. every had:

"His method of ticking people off remained as before, satirical, quiet; a sting rather than a buffet . . . Tedder had reason to suspect . . . (an officer) was using Service petrol for his private car. He met him one day, walking towards the car with a bucket full of liquid. He asked what the liquid was . . . 'Water, sir.' Tedder stood and chatted comfortably . . . taking out his pipe and striking match after match as though to light it. Each burnt-out stick he threw carefully down near the bucket until it was almost ringed with matches, whilst the officer quivered and went white . . . Then he walked away."

The change he effected was apparent at the annual inspection of 1925: "This station has im-

proved 100 per cent in appearance during the past year . . . very great credit is due to Wing Commander Tedder and his staff. He has a good system working with admirable results." It was the type of report which spelled success in the peace-time R.A.F. Tedder went to the Directorate of Training at Air Ministry for his first tour at 'Head Office'. And even better things were in store. In 1927, still Wing Commander, he was selected to attend the Imperial Defence College. From that select establishment, he went as instructor to the R.A.F. Staff College.

Tedder says he worked harder at the Staff College than either "before or since." It was not unusual for his batman "to go into the dining room at 7.30 a.m. and find Tedder checking a paper on the table; not because he had just got up but because he had never been to bed." The only perquisite attached to a Staff College appointment was reputed to be the choice of posting. Tedder requested "anything but training;" the normal result followed, and he became commander of the Air Armament School.

All this time his family, now including two children, was plagued with financial worries. It was never a question of extravagance: it was always a question of not enough pay. Tedder had no private means. When he held an appointment carrying command pay, matters were tight enough; when he was at the I.D.C. the family had to huddle into two rooms in Kensington, and count every penny carefully. It was a real difficulty. Perhaps it drove him the more steadily to his work.

This was beginning to pay dividends. He was a Group Captain now and his prospects were bright. At the Air Armament School he had showered on the Air Ministry a deluge of reports, letters of criticism and revised training schedules. The obvious way to dry up this flood was to make Tedder Director of Training. This was done and he was promoted to Air Commodore into the bargain. Finally, in 1936 came his first taste of high command. He was appointed Air Officer Commanding, Far East, posted to Singapore, and made an Air Vice-Marshal. The debit side of Tedder's new appointment included the acquisition of new uniforms on a lavish and expensive

scale. The new A.O.C., Far East, stepped ashore at Singapore resplendent in white, wearing a sword and white solar topee crowned with pale blue plumes,— and owing his tailor.

The R.A.F., Far East, soon realized it had a vigorous chief. Fresh purpose was instilled into training, which had previously been based on cross-country flights artfully timed to coincide with parties en route. Pilots now flew at night, in bad weather, and to inhospitable destinations. He introduced a sound staff system for planning and operations, and he gained invaluable experience in inter-Service, inter-Allied, and political liaison.

Singapore did not hold him long. In July 1938, as the *Wehrmacht* was moving near the Czechoslovakian border, Tedder was recalled urgently to London to become Director-General of Research and Development at Air Ministry. There he sat, while Chamberlain flew to Munich, Hitler drove into Prague, von Rundstedt sliced through Poland, Gort evacuated Dunkirk, and Petain surrendered France. Tedder's job, although unspectacular, was far from easy and was complicated by bureaucratic confusion. An example was the production of bombs: "If the Air Staff wanted a bomb made, the order went through Research and Development to the Director of Armament Development, thence to the Army-controlled Ordnance Board, where the Army had priority over manufacturing facilities." As a result of Tedder's prodding, an Air Armament Board was set up.

He was, of course, responsible for 'gadgets' of would-be inventors. Tedder held a low opinion of amateur productions: "Those sort of people didn't produce the real things. I had thousands of hair-brained ideas put in front of me. I always used to insist upon each one being properly examined. But I can't remember any really vital new ideas coming from untrustworthy sources.'" However rational, this attitude did not endear him to Mr. Churchill, in whose amazing and all-inclusive mind there was a special niche for complex mines and floating airfields of ice.

Perhaps Tedder's most significant decision as Director-General of Research and Development concerned jets. He went to see Group Captain



*Air Chief Marshal Tedder drinking tea with an airman of the R.A.F. Regiment after opening the "Malcolm Club" in Tunis, 1943.*

Whittle's first product "housed in an old garage, (and) was confronted with a framework apparently made out of iron girders and little wheels, with pipes sticking out through the door . . . Whittle told him 'The higher this goes, the better it works.'" It had previously been approved by Sir Henry Tizard; so, with Tedder's help, the jet started on the way to reality.

When the Ministry of Aircraft Production was formed in 1940, Tedder found himself serving under Lord Beaverbrook. He did not enjoy the experience. No greater contrast than the New Brunswick Press Baron and the Cambridge-trained Air Vice-Marshal can be imagined. There were frequent impasses, and the situation had become strained by the time Air Marshal Longmore, A.O.C., Middle East, required a deputy and requested Tedder. Tedder was eager to go, but Mr. Churchill at first refused his consent. The substitute selected for the job, however, was captured en route in Sicily, and the Prime Minister relented.

\* \* \*

From the time he flew into Cairo as Longmore's deputy in December 1940, until he became Chief of the Air Staff in January 1946, Tedder was a public personality. He succeeded Longmore in the Middle East. He went to Algiers, after the TORCH

landings, as Eisenhower's Air Commander. He flew to Moscow and dined and drank with Stalin. He followed Eisenhower to Europe as Deputy Supreme Commander for OVERLORD, and he finally became Chief of the Air Staff. In these five years he did his most important work, and made a real contribution to the development of air power.

Within three months of Tedder's arrival in Cairo, the German Army cut down the Struma Valley into Greece. Crete was lost, Longmore was relieved, and Tedder became A.O.C. Middle East, almost by default. He was thus thrust into a very difficult position. The R.A.F. had been severely criticized because of Greece and Crete. The Royal Navy and Army both demanded closer air support for their operations or, better still, private air corps. His own relations with the Prime Minister, if correct, were not over-cordial.

Tedder saw the application of air power to the situation prevailing in the Mediterranean in a different light from his Naval and Military colleagues. He viewed it as a cycle of Service interdependence: "The safety of the shipping route depended on the Army capturing the Cyrenaican airfields from which aircraft could take off to protect naval vessels conveying merchant shipping. The capture of the airfields by the Army depended on the Navy, provided with air cover, escorting merchant vessels containing Army supplies to Alexandria and upon the R.A.F. providing air support for the Army as it advanced. The R.A.F. could only provide efficient air support for the Army or air cover for the Navy if it had established a degree of superiority over the enemy air force, but the R.A.F. depended largely for its supplies upon the safe arrival of the merchant vessels, hence upon the safety of the shipping route."

His policy, therefore, was summed up in the sentence — *the air battle must be fought first*. But when the ill-fated attempt was made to relieve Tobruk, Army pressure was such that he was forced, against his judgement, to give the soldiers an air-umbrella. The result was not edifying, and Mr. Churchill issued a firm directive: "The idea of keeping standing patrols over our moving columns should be abandoned. It is unsound to

distribute aircraft in this way, and no air superiority will stand the application of such a mischievous practice.' " This air policy saved the Eighth Army when Rommel swept over the desert in June 1942, took Tobruk, and only dragged to a halt near El Alamein. The Desert Air Force, commanded by Coningham, held the air, and Mr. Churchill paid full tribute to them: "When we retreated all those hundreds of miles from Tobruk, what saved us was superior air power." By July 4th the danger had passed. Egypt was safe, and Tedder received the personal congratulations of the C.A.S. and a more tangible token of gratitude in promotion to Air Chief Marshal.

Immediately thereafter Tedder made his second great contribution to final victory. General Brereton, of the United States Army Air Corps, landed in Cairo to take command of the American air units in the Middle East. Tedder had to establish working relations with him in the midst of an active campaign. Then it was that he developed those techniques of co-operation that led to his eventual elevation as Deputy Supreme Commander of S.H.A.E.F. and Air C.-in-C. for OVERLORD. Tedder's personality did more than anything else to elicit co-operation. Brereton had expected " 'a sort of stuffed shirt . . . traditional idea we Americans are supposed to have about you British . . . ' " To his amazement, he found a smallish quiet man with a high-pitched voice, a pipe clenched in the centre of his mouth, wearing a field service cap squarely on the centre of his head, and having a disarmingly simple manner.

The American forces have acquired a difficult reputation for high-level co-operation. Addicted to the clear-cut order and the rigid chain of command, they would rather have a supreme commander giving direct orders than a conference of commanders producing a mutually acceptable plan. This direct approach led to inter-Allied difficulties, which were accentuated by intense U.S. inter-Service rivalries. With the possible exception of the U.S.N., the U.S.A.A.C. was the touchiest of all the U.S. Forces. They had not then reached the status of a Service, and their subordinate position made them hypersensitive. Tedder had not only to soothe this sensitivity; he had also to explain

inter-Service co-operation without a supreme commander and to establish inter-Allied relations, all at the same time. His success was an achievement of magnitude.

"Tedder had the foresight to realize that any matter concerning Anglo-American co-operation was liable to create lasting precedents for good or bad . . .

"It was a familiar difficulty, explaining to American observers how effective co-operation between the Services could be achieved without one commander reigning supreme . . . Asked what directive . . . had been given to Coningham, he could only answer: 'His directive . . . would have been to collaborate with the 8th Army Commander . . . for the defeat of the enemy. Actually no such directive has been issued, as the object is well enough recognized.'

"Brereton felt that the best thing to do would be to consult the man who dealt so easily in those indefinables about problems of American command.

"Thence began a compromise of uncertain legality, typical of Tedder, which left details unsolved, yet which worked in practice very well. Nominally, the American contingent was independent. Nominally, Brereton was responsible to his own senior American General . . . Actually, the Americans were taken under Tedder's wing, mixed in with our own squadrons, trained in R.A.F. methods, and then gradually given back their independence; and all without a single head being broken."

When we consider the tradition of independence enunciated by Pershing, Mitchell, King, and Bradley, we can realize what an achievement Tedder's represented. And the easy relations so established led directly to appointment as Eisenhower's Air Commander for TORCH, and as Deputy Supreme Commander at S.H.A.E.F.

After the TORCH landings had gone in, two Allied air fleets were fighting over Africa. The land fronts were separated by a steadily decreasing distance as Montgomery swept across the desert to Tripoli and Anderson squelched through the mud west of Tunis. Control of the land forces was chiefly a problem of co-ordination. But, since the physical barrier of sand and stone did not exist for



*The Air Chief Marshal with a group of pilots in Tripolitania, just before he left the Middle East to become Vice-Chief of Air Staff.*

the air forces, the question of Allied air control became pressing. The Joint Planning Staff recommended that the two air commands continue, and wished to see a Coastal Command established in which the Navy were to share. This plan met Admiral Cunningham's repeated demands for augmented air cover. Tedder, as always, was resolutely opposed to such sub-division of air power. He pressed for one air command vested in one air commander:

"'In my view the A.O.C.-in-C.'s position in relation to Eisenhower should be the same as that of Admiral Cunningham. He would be subordinate to Eisenhower as regards operations in Algiers and Tunis, and co-operate with Eisenhower as regards air operations over the rest of the Mediterranean. A lot depends upon personalities.'"

General Eisenhower at first was dubious of Tedder's ability to control two air forces, and had already appointed General Spaatz as his Deputy for Air. Finally, on December 9th, Eisenhower invited Tedder to Algiers for consultations. The two men became friends and Eisenhower asked Tedder to form Mediterranean Air Command. At this new eminence, he attended the Casablanca Conference in January 1943, and lost his wife in a 'plane crash.



The American attitude toward their Allied Air Commander is summed up by General Saville and General Brereton. In Saville's view:

" 'For our money, there had to be a British Air Commander. All of us air people would have been glad to work under anyone sponsoring the British system of air power, regardless of who the individual was. Imagine our collective gratification when the guy whom we'd been glad to take on as a matter of principle turned out to be a guy who could actually tie things up. Tedder was the man who kept air power as air power. And Eisenhower was prepared to be sold on that, by a man like him.' "

In "Hotfoot Lewie" Brereton's words:

" 'When we arrived in the Middle East . . . we were a mixture of brass and humility and we didn't like being told too much what to do, even when we didn't know how to do it . . . When (Tedder) came down for his first visit he was a kind of foreign animal, but when he'd finished they were all sold on him, no doubt about that. He didn't talk down to a man. There was never anything in his attitude to indicate that he thinks himself superior to anyone else, or to make us feel we'd been in the war for only two months . . . ' "

Certainly the Mediterranean Air Commander was a great success, not only militarily, but personally. General Eisenhower has put his pen on the reason:

" 'Many people capitalize on bad manners . . . neither he nor I was impressed with bluster . . . If prestige was to depend on pomp and flags and bad temper, then it was just too bad . . . He believed in tact, whereas some of us were inclined to think that tact was to be despised . . . ' "

Tedder's third great contribution to the winning of the war was his direction of the air forces in the invasion of Normandy. The theory upon which he staked his reputation, and which perhaps more than any other was immediately responsible for the success of OVERLORD, was that the land forces were entitled to more than the indirect air support given by the bombing of Germany: " 'I never felt that air effort against Germany wasn't vital, but I did see the continual necessity for having to call on air effort to support the land

campaign.' " Tedder wanted a balanced air effort, and he had ready a scheme to make his opinions effective. It was the pattern of attack known as the Transportation Plan. This had been developed for HUSKY (the Sicilian landings) as attacks on six major Italian rail centres, and it had been an outstanding success. But the plan was not easily accepted for OVERLORD. The U.S.A.A.C., the Ministry of Economic Warfare, R.A.F. Bomber Command, and part of the Air Ministry, opposed it, and Mr. Churchill and many of the Cabinet disliked it because of inevitable French civilian casualties:

" . . . So began a series of meetings, always at night, when Tedder faced an onslaught on grounds where his experience . . . counted for little . . . His character counted for much . . . Tedder had to point out again and again that if Montgomery was to have his 150-mile radius from the beach-head as a zone to which German armies and reinforcements could penetrate in small trickles only, the transportation plan must go through."

Eventual acceptance did not mean that the plan was carried out as intended. Personalities intruded. "Spaatz's heavy bombers took part in less than ten per cent of transportation plan attacks and regularly found excuses not to take part in any more." Leigh-Mallory nearly resigned on that issue. Tedder, as the Deputy for S.H.A.E.F., was constantly compelled to arbitrate these and other quarrels. Fortunately, the rail attacks were effective and Tedder was vindicated. The damage to the French railways had been amazing, and the movement of German troops into the bridgehead was effectively retarded.

\* \* \*

After the landings in Normandy, Tedder seemed to recede more and more into the background. The vastness of S.H.A.E.F. engulfed him, and he lacked both personal colour and the devoted press agents who could manufacture it. This disdain for publicity helped keep his relations easy with Eisenhower. Ike sought his advice on all problems, and his relations with his U.S. colleagues, Smith, Bradley, and Patton, were also good. It was in pleasant contrast to the acerbity and bitterness

which existed between them and Montgomery. He still retained his taste for gentle rebuke and for disreputable clothes. His batman said he was " 'particularly fond of one old battledress and a shabby fore-and-aft cap. He just wouldn't wear anything smarter even if I laid them out all cleaned and pressed and beautiful . . . ' "

Tedder came back to the Press headlines in January 1945, when he went to Moscow in an attempt to co-ordinate the assaults of the Allied and Red Armies. He met the usual Russian series of ridiculous delays and vodka feasts. When he finally reached the Kremlin, he apparently got on well with Stalin, whom he had met in 1942, and who impressed him as both evil and sane:

" 'He's not mad . . . Stalin is a very shrewd man, and everything he does is done for a purpose, very often for a very dangerous and evil purpose. But how he's escaped with his sanity considering the position he's in is something incredible.' "

Tedder did little to increase his dubious popularity with Mr. Churchill by openly supporting Eisenhower when Montgomery wanted to thrust for Berlin and the fatal mistake was made of trusting the Russians and advancing on a broad

*North Africa, 1943. Left to right: Air Vice-Marshal W. A. Curtis, Deputy A.O.C.-in-C., R.C.A.F. Overseas; Gen. Carl Spaatz, Commander, North-West African Air Force; Air Chief Marshal Sir Arthur Tedder, Air Commander-in-Chief, Mediterranean Air Command.*



front. It is noticeable that while Tedder received a G.C.B. and a Barony, he got, from his own Government, no other mark of distinction. Not for him were the Garters of Field Marshals Alexander and Montgomery or the Thistle of Admiral Cunningham. He did, however, have the distinction of signing the surrender terms in Berlin in May 1945.

After V.J. day, Tedder succeeded Viscount Portal as Chief of the Air Staff. He retired in 1950 and, in 1951, he received his greatest distinction in his election as Chancellor of the University of Cambridge. He had always been a Cambridge man, although he had left the red walls of Magdalene and the limpid waters of the Cam in 1913. His method of thought, his passion for old and dirty clothes, his manner, his gentle sarcasm, his first distinction and his greatest honour, all came from his University. So it is agreeable to take our leave of him in the words of a Canadian student:\*

"My sister and I met him at a cocktail party at Canada House. He was in the uniform of a Marshal of the R.A.F., braid to his elbows, but looking very trim. There was no affectation or side, and we had a very amusing conversation, mostly about a relative we found in common, and chatted happily over several drinks. He seemed a very genuine type."

\* \* \*

Such is the career which Mr. Roderic Owen has sought to describe in his book.

It is only fair to say that the *Tedder* of Mr. Owen does less than justice to the Tedder of the R.A.F. It is true that the author was faced with that biographer's nightmare, a hero both living and reticent. To some degree this difficulty could have been avoided by using the vast mass of printed matter now extant on the Second World War. Mr. Owen constantly fails to place Tedder accurately on the grid of world events. He casually omits dates. He has a vague, loose, and journalistic style. He has an unpleasant tendency to intrude himself into the narrative and a disturbing habit of constantly selecting the same inept metaphors.

\*W. N. A. Chipman, in conversation with the writer of this review.

Tedder plays the “organ of air power” *ad nauseam*, and Mr. Churchill, “plowing the furrows of war,” is a bucolic and a dismal sight. The uneven narrative might have been strengthened by a generous use of photographs. The photographs of the Berlin surrender, for example, are historic and captured the feeling of that

occasion which Mr. Owen misses. The best parts of the book are the occasional quotations from Tedder’s own words and from those of his familiars.

Altogether, it is an inadequate and fleeting study of a serious and important man. Its best use may be to induce Lord Tedder to write an autobiography.

## Pin-Points in the Past ★ ★ ★



The photograph of what might almost be an abandoned and probably haunted mill was taken in 1924, at Dartmouth, N.S. It shows the Air Station as it was in the days when the R.C.A.F. earned a precarious but honest living by working for various Departments of the Government — at fishery-patrol, aerial survey, forestry patrol, etc. Immediately behind the buildings, out of sight, lies Halifax Harbour.

Manning the Station at that time were the men shown in the group photograph. In the front row, from left to right, are: Cpl. H. A. Dickson (Group Capt., deceased), Sgt. M. L. Colp (Group Capt., retired), Mr. W. Baker (on temporary duty), Sqn. Ldr. J. H. Tudhope (retired), Capt. P. J. Moloney, Flt. Sgt. M. Graham (W.O.2, released), Cpl. J. J. Sullivan (released). In the back row, from left to right, are: A.C.1 F. Lund (Wing Cdr., retired), Mr. D. Conrad, Cpl. J. Hirtle (released), A.C.1 E. Conrad (released), Sgt. C. H. Nesbitt (released), LAC F. Rout (released), Cpl. B. Ritcey (Flying Officer, retired). It will be noted that the uniforms are the dark blue of the Canadian Air Force, the immediate predecessor of the R.C.A.F. We are indebted to Group Captain Colp for the foregoing identification.

The third photograph was kindly sent to us by Mr. (formerly Warrant Officer) R. J. Tupper, of Brockville. It shows an H.S.2L flying boat being lowered into the Ottawa River down the slipway at Ottawa Air Station, Rockcliffe, in 1922. Standing on the port wing is Flt. Lt. C. M. McEwen (Air Vice-Marshal, retired), and on the fuselage is “Smokey” McConnel (Wing Cdr., retired).



## PLANNING THE AIR FORCE STRUCTURE

By Wing Commander G. R. M. Hunt

*(The author of this seventh article in "The Party Line" series joined the R.C.A.F. as a Pilot Officer in January 1940. On the conclusion of his training, he served as a flying instructor for more than a year before being transferred to patrol work on the West Coast of Canada. In the spring of 1943 he was sent to the R.A.F. Liberator O.T.U. at Nassau, operating from St. Eval, in Cornwall. This was followed by a winter in Iceland with the same squadron; after which he returned to Canada, where he remained in the old North-West Air Command until 1951. He then attended the R.A.F. Staff College course, to be transferred, on graduation, to his present position in the Directorate of Air Plans Strategic at A.F.H.Q.—EDITOR.)*

*"To be prepared for war is one of the most effectual means of preserving peace." George Washington.*

### The Architects

Behind the locked doors of secluded offices at A.F.H.Q., numbers of officers are constantly at work upon the shaping and reshaping of the R.C.A.F.'s structure. These are the planners, the architects of the Service; and their function is to design, *within given financial limits*, an air force that will be able to meet whatever demands the security of the country is likely to make upon it. They do not, however, constitute anything like a law unto themselves. Once they have (after assessment and reassessment all that Intelligence can tell them of the international situation) made

their preliminary sketches, they become co-ordinators. The personnel staff advises them on the availability of personnel to implement their general plans, the logistics staff on the availability of materiel, while the air staff indicates in broad terms the remainder of the requirements. Having digested all this information, the planners then go ahead and endeavour to produce blueprints that will be acceptable to all those who will have to work from them.

### Rôles of the R.C.A.F.

The R.A.F. War Manual states that the rôle of the R.A.F. in war is:

- offensively, to attack selected targets, the effective bombardment of which is best calculated at the time to undermine the powers of resistance of the enemy nation, and
- defensively, to provide defence against enemy attack.

An examination of the offensive and defensive rôles stated here immediately brings this thought to mind: "Is the R.C.A.F. of today capable of carrying out these rôles, and if not, why not?". To find the answer to that question let us turn back to the end of the Second World War and review the planning that has been done since then. By so doing, it will become apparent why our Air Force has developed as it has instead of striking the conventional balance between fighter, bomber, maritime, and tactical forces.

### N.A.T.O.

It will be recalled that at the end of the Second World War, Canada, along with the other Western Democratic nations, put her head in the sand and demobilized her armed forces as rapidly as possible. In fact, we demobilized to such an extent that we could not have "fought our way out of a paper bag." There was, however, some excuse for this rapid and extensive demobilization. After the storm of the greatest war in history had exhausted itself, there were few clouds on the international horizon. Although the Soviet Union had become an international power of the first order, none of the Western Nations would recognize (or, it may be, admit) that Russia was a threat to their security. Thus, it was in this supposedly ideal climate of international affairs that our plans were laid. We planned for a nucleus air force capable, in an emergency, of rapid expansion to any required size. In other words, our Service architects put in little more than the foundation of their structure. The weather was grand and there did not appear to be any great hurry to finish the house. Furthermore, our funds were limited and it looked as though we might have to live in the basement for some time to come.

Our sense of well-being was short lived. By 1947 — only two years after the war — the Soviet Union had made it perfectly clear that she had not relinquished her dreams of world domination. As the international tension increased, it speedily became apparent that the security of the Western Democracies could not be left entirely to the United Nations.

The deterioration of the world situation resulted in the banding together of various Western states for their collective defence. A defence organization (Western Union Defence Organization) was planned for the defence of Western Europe in the event of war. This was the first time in history that nations in peacetime had planned an integrated Allied Command. Then followed the North Atlantic Treaty, the concept of which was first suggested by Canada's Prime Minister, the Rt. Hon. Louis St. Laurent.

The main gist of the North Atlantic Treaty was the agreement by all participating nations that an armed attack on one or more signatories would be considered to be an attack on all. If such an eventuality occurred, each member nation would assist the victims by taking such action as was deemed necessary, including the use of armed force. All the participating nations further agreed to take steps to maintain and develop their individual and collective capacity to resist armed attack.

A vast amount of planning was necessary before the required security could be assured. To begin with, therefore, five regional planning groups were set up, with two of which Canada was intimately concerned — the North Atlantic Ocean Group and the Canada-U.S. Group. Since then, however, the integrated commands of S.A.C.EUR. (Supreme Allied Commander Europe) and S.A.C.LANT. (Supreme Allied Commander Atlantic) have come into being. These formations carry out the detailed planning for N.A.T.O., and of the five original planning groups only the Canada-U.S. is still active.

### S.A.C.EUR.

Our position in Europe vis-à-vis the Soviet Union is well known. We know that the Soviet Union has an air force of some 20,000 aircraft. The Soviet Air Force is designed primarily to carry out a ground support rôle in support of the Russian Army. At the same time, they also have a strategic bomber force and a home defence force, both of which have considerable capabilities. Knowing the size and probable capabilities of the



Soviet Air Force, the first task confronting the planners was to devise a plan which would best meet our needs for European defence. Recognizing the fact that quantitatively we were considerably inferior to the Soviet Union, it immediately became apparent that we must have forces which would be capable of withstanding any initial thrust the Soviet Union might make against us, until such time as the vast industrial potential of the West could be mobilized.

From the very beginning the inadequacy of our European air defence was recognized, and at that time Canada and the United States agreed to contribute squadrons for the defence of Europe. Initially, with only the barest outline of the requirement, the R.C.A.F. planned to provide a balanced force of day interceptors and ground support aircraft. This force was to consist of eleven squadrons, seven fight-bomber squadrons, a tactical reconnaissance squadron, and three day interceptor squadrons. But, as the planning for the defence of Europe progressed, it became apparent that the one vital factor which could affect Allied success in the opening phases of the war would be our ability to exercise and maintain air supremacy over and behind the combat zone. Without it, our land and air forces would not be able to mount a counter-attack of any kind, or even carry out a successful withdrawal, and the enemy would be perfectly free to exploit his overwhelming superiority in men and materiel. This line of reasoning led to a requirement for strengthening the interceptor force. Since Canada was embarked on a construction programme of Sabre aircraft, and as this was one of the few aircraft capable of effectively meeting the MIG 15, the R.C.A.F. agreed to convert its contributions to a division of day interceptors, and the number of squadrons in the division was raised from eleven to twelve. Also of importance was the fact that a division equipped entirely with the same kind of aircraft would better allow us to maintain its logistical support adequately. Further, we would be able to maintain our national identity, an important consideration from the standpoint of morale.

The R.C.A.F. contribution to the defence of the European theatre now consists of an Air Division

Headquarters, and four fighter wings which consist of twelve squadrons, an air materiel base in the United Kingdom, and the necessary logistical support units on the continent. This contribution has not yet been completed. At the present time we have two fighter wings overseas, one in the United Kingdom and one in France. The remaining two wings will be formed and deployed to Europe before the end of 1953. The R.C.A.F. Air Division will form part of the 4th Allied Tactical Air Force, and this air force in turn is one of two under the command of A.A.F.C.E. (Allied Air Forces Central Europe).

#### **S.A.C.LANT.**

Having dealt with our contribution to S.A.C.EUR., let us now turn briefly to our contribution to S.A.C.LANT., whose responsibility is the defence of the North Atlantic Ocean.

Very briefly, the principal Soviet threat, from a naval standpoint, consists of its force of some hundreds of ocean-going submarines — although they do possess a considerable number of modern cruisers, destroyers, and light craft as well. However, they have no surface naval vessels that are in a position to challenge surface ships of the Royal Navy or the United States. Obviously, then, if the Soviet Union expects to sever the vital sea-lines of communication between the North American continent and Europe, her submarine force remains the only means available. We can expect the Soviets to exploit this means to the full, much in the same manner as was done by Germany in the Second World War.

It was necessary, in our planning, to take into account this submarine threat. This was done, and we now have maritime squadrons on the East and West Coasts. A certain proportion of our maritime aircraft on the East Coast have been allocated to S.A.C.LANT. for the emergency defence of the North Atlantic Ocean.

#### **Canada-U.S. Defence**

Finally, let us consider the defence of the Canada-U.S. region. The Soviets are considered



to be in a position to carry out atomic attacks against any important targets in Canada and the United States. It is conceivable that they might make small commando raids upon our coasts, or in areas within range of their long-range transport aircraft. They would also be able to mine our harbours, either overtly by the use of submarines, or covertly by means of merchant ships.

Thus, from the threats outlined above, there evolve three basic tasks in the defence of Canada. These are:

1. air defence,
2. protection of our harbours and coastal waters, and
3. the reduction of enemy lodgements.

The primary responsibility for these tasks have been allocated to each of the three Service Chiefs of Staff. The C.A.S. is responsible for air defence, the C.N.S. for protecting our harbours and coastal waters, and the C.G.S. for the reduction of enemy lodgements. In turn, each of the Service Chiefs of Staff has delegated his responsibility to appropriate field commanders.

The air defence of Canada, then, is our primary responsibility, although we must at the same time provide what help we can to the other Services to assist them in their primary responsibility. By the same token, the other Services are required to assist us whenever possible. For the air defence of North America, a co-ordinated system of defence has been set up by the U.S.A.F. and the R.C.A.F. Each Service has accepted certain specific tasks to fulfill its responsibilities toward the general defence system. For example, a radar network of permanent radar units has been established. Normally, when a radar unit is set up to screen Canadian vital targets, it is manned by the R.C.A.F., and where American vital targets are being screened, the units are manned by the U.S.A.F., even though the units themselves may

be in Canada. We have also established a Ground Observer Corps which will operate in conjunction with the radar units. Equipped with the necessary information concerning incoming raids, our all-weather fighter squadrons will be able to carry out satisfactory air interceptions of the enemy.

### Aircrew Training

The R.C.A.F. has another extremely important function in addition to that of air defence of Canada and our contributions to S.A.C.LANT. and S.A.C.EUR. This function is that of training aircrews for other N.A.T.O. countries. Under the N.A.T.O. training scheme, we are training pilots and navigators for the United Kingdom, France, Belgium, Italy, Norway, and the Netherlands. This training function cannot be stressed too highly, for it is absolutely essential that we have an adequate reserve of trained aircrew available to us at all times. It may well be that, should a Third World War be thrust upon us, the outcome of that war will be decided in the first few months. If we do not provide for adequate numbers of trained aircrew before mobilization, there might not be time after mobilization.

### Conclusion

In the limited space available, it has been possible to outline only the high-lights of what our planners have done since the war. To summarize, they have produced acceptable working-drawings which enable us:

- to fulfill the defensive rôle of an air force,
- to carry out our offensive rôle by making due contribution within the whole N.A.T.O. framework of an offence and defence, and,
- to provide training facilities designed to strengthen N.A.T.O. both for offence and for defence.

The structure designed by the R.C.A.F.'s architects is fast assuming no unworthy shape.

## EDUCATION

You cannot teach a man anything: you can only help him to find it within himself.

(Galileo)

# CPL. TWITTERWHISTLE

*writes a letter*

Cpl. Alice Twitterwhistle slapped "The Roundel" back on to the water-cooler and threw her paper cup into a nearby wastebasket. Then, as she walked back to her desk, she said firmly to the world at large:

"There ought to be a woman's angle in it."

The Warrant Officer looked up from across the room.

"In what?" he asked, darting an anxious glance at the water-cooler.

"In 'The Roundel', Sir." Alice resumed her seat at the typewriter and fixed him with a respectful yet militant eye. "Now that we W.D.'s are back in the Service, we ought to have a bit more representation in the Air Force magazine. Why—"

She paused to gesture dramatically at the stencil in her machine, on which she had just been typing out the D.R.O. notice about the airmen's wives' bowling league.

"Why, if you take the population of this station alone, I bet you'll find it's at least one-third female, counting wives, daughters, W.D.'s, nursing sisters, civilians, and all the other essential women."

The Warrant Officer, who was a married man, shuddered perceptibly at the thought. Then, pulling himself together, he mumbled something about woman's place being in the home, and bent once more to his work.

The Sergeant stopped filing his finger-nails long enough to favour Cpl. Twitterwhistle with a wink of encouragement. But that young lady was not to be incited to further comment. For the moment, she had said her say. She arched her eyebrows with *hauteur* and resumed her typing. The day wore on . . .

The shades of night had long since fallen about Barrack Block 17 (and, for that matter, about every other building on the station as well) when a group of devoted airwomen leaned back in their chairs to hear Cpl. Twitterwhistle read out the

letter she had just completed — a letter which represented the quintessence of their joint thinking for the past two hours. Looking rather like a *petite* Boadicea, but dressed in an angora sweater that would have demoralized the Romans much more effectively than a scythed chariot, she rose to her feet and began:

Dear Sgt. Shatterproof:

We, the undersigned airwomen (or female persons), do hereby petition that there be set aside in the literary pastures of "The Roundel" some corner in which our sex may browse, ruminate, or gambol, as the spirit moves us. We women of the Service wish that the feminine angle be revealed throughout the Royal Canadian Air Force, at home and beyond the seas, and in all its Regular, Auxiliary, and Reserve formations.

We desire to hear what airwomen on the other stations are doing. Has some progressive thinker among them found a short cut to learning Q.R. (Air), A.F.R.O.'s,



or C.A.P.90? Have any of them discovered how to spend a 48 on less than ten dollars? Are they organizing bazaars, playing in bands, winning trophies in the field of athletics? How, in a word, are they coping with the problems of life in the peacetime R.C.A.F.?

Hitherto, apart from a few photographs in which airwomen appear merely because they happened to be within range of the camera, the only indications that women are back in the Air Force has been Miss Mary Mark's two articles and one small item on the first rebirthday party of the W.D.'s. Shall it be said by future generations of airwomen that Sgt. Shatterproof, pondering high policy over his pre-prandial pint, was unmoved by the plight of their predecessors? Shall it be said that he failed the cause both of Justice and of the Sex? We are confident that it will not.

We enclose, therefore, a few notes on the sort of material we would like to see more of in "The Roundel."

Please use the full weight of your eloquence to ensure that they are prominently displayed in its pages.\* We would ask that you, as the friend and champion of the boys in the field, now take up your pen—and, if necessary, unsheathe your sword—on behalf of the girls.

The Airwomen of Barrack Block 17.

Cpl. Twitterwhistle finished reading and looked enquiringly around the table. Ten solemn faces stared back at her. Ten heads nodded their approval. Cpl. Twitterwhistle folded the letter and placed it in an envelope.

The die was cast.

The airwomen of Barrack Block 17 got up from their chairs, stretched, and went to bed.

\*See inside back cover.—Editor.

## THE CATBIRD

One thing about the catbird: he insists that this is a good world in which to be alive, but he does so with a sense of proportion. He doesn't just go around singing, "Goody, goody gumdrop, and he rasps out a few snarls just to see who is edgy enough to jump, and he laughs raucously, and then he sings. He has talent, high talent, but he refuses to play the artiste. He doesn't demand the topmost branch before he can utter a note. He doesn't sit around waiting for five minutes just after sunrise. He sings anywhere any time, particularly if he is halfway sure of a human audience.

We can do with that approach . . . It's a good world and the catbird knows it; but he has an innate sense of proportion, which is one of the most refreshing qualities there are in bird or man.

("The New York Times")

# It's in the Wind

## 9. Rainbows

By R. A. Hornstein, Meteorological Division, Dept. of Transport.

(Reprinted by permission of the Dept. of Transport)

*No weather fair expect, when Iris throws  
Around the azure vault two painted bows.*

ARATUS

SOMETIMES RAIN IS welcome; sometimes it is unwanted. Its occasional companion, the rainbow, however, is always a treat for human eyes.

Although the formation of a rainbow is a very common occurrence, it happens to be one of those natural features which requires knowledge of certain physical laws if its development is to be explained. The particular laws involved are those of the refraction of light.

Suppose a ray of light is travelling through air and arrives at the surface of a body of water. Some of the light will enter the water, but in so doing it will abruptly change its direction. This bending, or breaking of its path, is called refraction. A familiar illustration of refraction is the appearance of a straight oar when held at a slant in water. It will be recalled that it looks as if the oar were bent just where it enters the water, although when taken out again it is, of course, found to be perfectly straight. The apparent bend is caused by the refraction of the light rays as they pass from the water to the air.

There is a special kind of refraction which must be considered in arriving at an understanding of

the production of the colours of a rainbow. Whenever a ray of white light passes at an angle from air into glass and back from the glass into the air again, the light is found to be split up into parts, and these parts display different colours. This separation, or spreading out of the constituents of a beam of light, is called dispersion.

Sir Isaac Newton was the first man to examine, in a really scientific way, the dispersion produced by a glass prism. He let some light pass through a hole in a window shutter and then he placed a glass prism in the path of the beam. On the opposite wall he saw an oblong image.

The end of the image farthest from the original path of the light was violet, and the opposite end was red. Newton called this image the spectrum. On careful inspection he thought he could recognize seven distinct colours, which he named in order: red, orange, yellow, green, blue, indigo and violet. It should be noted, however, that there are not seven separate coloured bands with definitely marked dividing lines between them. Rather the adjoining colours blend into each other.

Newton's experiment may be applied to the study of a rainbow. Here we have a spectrum on a grand scale with the sun and the waterdrops playing the leading rôles. The rainbow is produced through the refraction and dispersion of sunlight by raindrops.

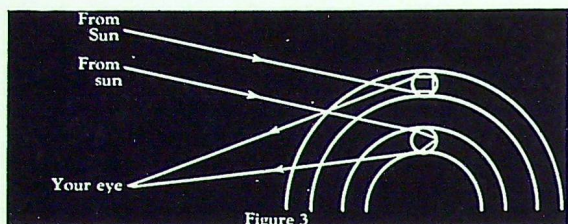
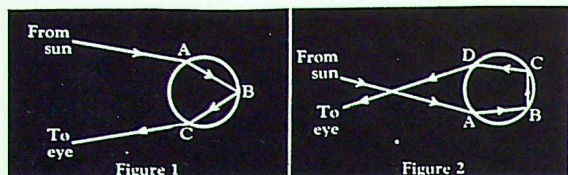


Figure 1 shows how the light from the sun is bent at A as it enters the drop, is reflected from the far inner side of the drop at B, and is bent again at C as it leaves the drop, that is, refraction of the rays occurs at A, reflection at B, and refraction again at C. In addition, of course, the white light is dispersed and the spectrum colours are seen. This gives a single rainbow.

Figure 2 shows how the secondary bow is formed. Here light enters and is bent at A, it is reflected first at B and then at C, and is refracted out at D.

In Figure 3 an illustration is given of how both the primary and secondary rainbows are formed. The light from the sun comes from behind your back and shines on raindrops falling off to the right.

In order to see the rainbow, the observer must look towards the falling rain with the sun behind him. The rays of sunlight coming from behind, enter the upper part of the waterdrop. Part of the light is reflected from the far inner side of the drop. Then it passes back out of the drop on the near lower side, and in so doing it is bent and dispersed, and the colours of the spectrum are seen. (See fig. 1).

With a tremendous number of waterdrops all doing this to the light rays, the result is a large bow of colour, that is, a rainbow with violet on the inside and red on the outside.

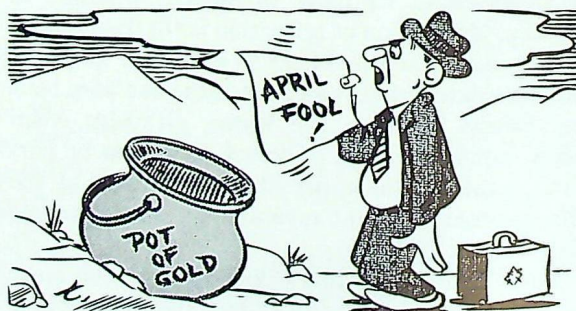
Very often two bows are visible, one inside the other. The inner bow is the bright one just described, while outside this is a larger and much fainter one. Furthermore, the order of its colours is reversed, with the red being on the inside and the violet on the outside. This second bow develops when the light from the sun is reflected not once,

but twice inside the raindrop before it gets back out into the air again. (See fig. 2).

A peculiar thing about this second bow is that most people see it but do not realize it. Whenever a bright rainbow is seen, the second, larger bow is practically always visible, yet few people see it until it is pointed out to them. After that they always see it! (See fig. 3).

Rainbows are more frequently seen in the summer time than during the winter. This is the case because the local showers in sunshine which produce rainbows are normally caused by strong heating of the surface layers of the atmosphere; and, since the earth gets much stronger heating during the warm season than during the cold season, there are more frequent showers in summer and so more rainbows.

Often the question is asked: "Where does the rainbow end?" That depends entirely on the relative position of the sun and the raindrops and the observer. If the shower causing the rainbow is very close, the end of the rainbow will be near by. With showers farther away, the rainbow and its ends will be farther away. In other words, the distance to the rainbow is just the distance to the raindrops that produce it. This is an indefinite value that covers the whole range from the nearest drops that have a part in producing the coloured light, to the farthest. Sometimes even the closest of these drops may be miles away. Sometimes they may be very near, and we can almost grasp the "pot of gold" at the rainbow's end. Incidentally, this "pot of gold" is just the yellowish spot which is formed at the earth's surface by the blending of the various colours where the bow meets the ground.



Occasionally, too, the question is asked whether it is possible to go right under a rainbow's arch and come out on the other side. This is not possible. With the sun at the observer's back the rainbow is always in front of him and it cannot have any other position. There will be occasions, of course, when a rainbow might be seen to the east, say, and then if the observer were driving along an unfamiliar winding road he might end up so "turned around" that when he looks at the bow again he thinks it is in the west. Thus he comes to the conclusion that he has driven through it, just as he might drive under an arched bridge. But he has not. This is a case where seeing may be believing . . . but not necessarily believing the right thing!

It will be recalled that in southern Canada rainbows are relatively rare at noon. This is because, at noon, the sun is high in the heavens and the entire circle of the rainbow is below the horizon of an observer who is on low flat ground or at sea. Therefore, the bow is cut off from sight. However, if the observer were high enough above the earth, the rainbow would be seen, not, however, as a bow, but as a complete circle. As sunset approaches or soon after sunrise when the sun is low, the arch is high and impressive, whereas as the morning wanes or in the middle of the afternoon only a small section of the arc is visible.

Another interesting fact is that no two people ever see the same rainbow. A rainbow is not a

material object which is fixed in position and visible from all sides. Suppose a rainbow should be so located that the places on the ground from which it springs, or seems to spring, can be seen; should the observer walk to one side, the bow appears to shift to new places of support. Of course, nothing material has shifted. Hence, the bow seen at one place is different from that seen at the other place, because it is made up of light from different drops. This is true for any two places no matter how close together they are. Therefore, as the eyes of two people cannot be in the same place, they do not, and cannot, see the same rainbow.

Many books contain the mistaken statement that rainbows seen at night are always white. This is not true. The whiteness of most night-time rainbows is due simply to the relative faintness of the bow; in general, the brighter the bow, the stronger the colour, and only at full moon is one likely to see a bright rainbow at night. Weather observers on merchant ships on the ocean often see unusually bright rainbows at the time of the full moon. Colours of unusual brilliance and clearness are observed and give unmistakable proof that night-time rainbows may be coloured.

*The End*

## SUSSEX SURNAMES

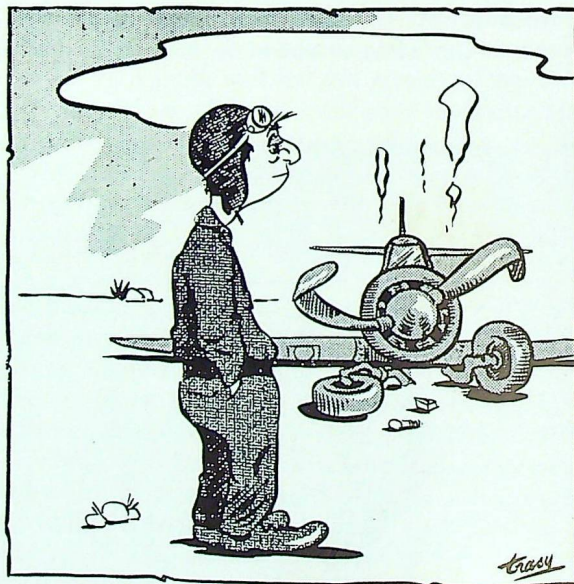
Can any country claim more curious surnames than Sussex? Pitchfork, Slybody, Devil, Lies, Hogsflesh, Sweetname, Juglery, Hollowbone, Stillbornè, Fidge, Padge, Beatup, Wildgoose, and Whiskey are a few in the county archives that would certainly have interested Dickens. As for the names adopted during the Puritan revolution, there can surely be none so odd as those to be found in the Sussex registers. In 1632 Master Performe-thy-Vowes Seers, of Maresfield, married Thomasine Edwards; when his death was recorded his name had by then been abbreviated to Vowes-Seers. A Heathfield wench was named More-fruits, and there are also on record Stand-fast-on-high Stringer, of Crowhurst; Weep-not Billing, of Lewes; Fight-the-good-fight-of-faith White, of Ewhurst; Kill-sin Pemble, of Withyam; and Fly-fornication Richardson, of Waldron.

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

# ★ What's the Score?

We are indebted to W.O.1 E. H. Rossell, of the CF-100 O.T.U. at North Bay, for most of this month's questionnaire. Sgt. Shatterproof, to whom we forwarded it for approval, remarks in a postscript to the letter with which he returned it that "it might be advisable to refrain from publishing the average score of the Editorial Committee. This is no time for the outraged taxpayers of Canada to raze the office of 'The Roundel' to the ground. Even I, Sir, in whose veins there flows the blood of 'Pig-Iron' Shatterproof, the East Anglian ironmaster, was unable to answer more than 19 of Warrant Officer Rossell's questions." — Correct answers appear on page 48.

1. Monel metal, which is used for non-magnetic aircraft parts, is composed of:
  - (a) 63-67% nickel and 28-30% copper.
  - (b) 60% nickel and 28-30% chrome.
  - (c) 30-35% nickel and 65-70% iron.
  - (d) 60-70% iron and 20-30% nickel.
2. Atomic weight is:
  - (a) The ratio between the weight of one atom of an element and 1/16 of the weight of an atom of oxygen.
  - (b) The weight of the nucleus of an atom, calculated on the basis of a hydrogen nucleus as 1.
  - (c) Determined by the number of atoms in a single molecule.
  - (d) Ascertained by observing the behaviour of an atom under bombardment in a cyclotron.
3. Titanium, an element that equals steel in strength but weighs only half as much, has an atomic weight of:
  - (a) 65.38
  - (b) 22.99
  - (c) 47.90
  - (d) 49.70
4. Listed below in descending order of weight (avoirdupois) are:
  - (a) Steel, cast iron, aluminum, titanium.
  - (b) Steel, cast iron, titanium, aluminum.
  - (c) Cast iron, steel, titanium, aluminum.
  - (d) Cast iron, steel, aluminum, titanium.
5. The approximate percentage of carbon in pig-iron (the unrefined product of the blast-furnace) is:
  - (a) 7
  - (b) 2-3
  - (c) 3-4.15
  - (d) 4.5-6
6. Aluminum is added to steel in order to:
  - (a) Lower the melting-point.
  - (b) Obtain lighter steel.
  - (c) Raise the melting-point.
  - (d) Control grain size.
7. Magnesium alloy, used for aircraft landing-wheels on account of its lightness, normally contains all three of the metals —
  - (a) Barium, zinc, copper.
  - (b) Copper, aluminum, zinc.
  - (c) Aluminum, manganese, zinc.
  - (d) Barium, aluminum, copper.



8. Derived chiefly from deposits on the flues of smelter chimneys, and expected by many electronics experts to revolutionize the electronics industry, is a metal known as:

- (a) Germanium.
- (b) Californium.
- (c) Hispanium.
- (d) Helvetium.

9. An axe made of low-carbon steel:

- (a) Takes a good edge but is very hard to sharpen.
- (b) Will not take an edge at all.
- (c) Takes a good edge but is too soft to hold it for long.
- (d) Is too brittle to cut anything but soft woods.



10. Among the rays given off during the decomposition of radioactive metals are:

- (a) Beta particles.
- (b) X-rays.
- (c) Gamma rays.
- (d) Alpha particles.

11. Non-sparking safety tools, for use in an explosive atmosphere, are made of:

- (a) Chrome vanadium.
- (b) Beryllium copper.
- (c) Magnesium.
- (d) Nickel silver.

12. "Hot shortness" is a metallurgical term referring to:

- (a) Shrinkage of metal while hot.
- (b) The plastic deformation of metal at an elevated temperature.
- (c) An alloy addition to molten metal.
- (d) Brittleness in hot metal.

13. *Not* a magnetic metal is:

- (a) Manganese.
- (b) Cobalt steel.
- (c) Silicon iron.
- (d) Nickel.

14. To "lute," in metallurgy, means:

- (a) To collect scrap-iron by stealth.
- (b) To apply clay fillers or plugs to blast-furnaces.
- (c) To cold-draw wire for use as harp strings.
- (d) To tap (or "rob") a furnace.

15. "Nitridding" is:

- (a) The colloquial term for the job of a slag-train brakeman on the graveyard shift.
- (b) An eighteenth-century method of extracting gold and silver, practised with considerable success by R. Turpin.
- (c) A method of surface-hardening steel.
- (d) An annealing process.

16. Wood's metal is a peculiar alloy which:

- (a) Is used in jet-engine flame tubes because of its high melting-point.
- (b) If made into a spoon, will dissolve in a cup of tea.
- (c) Was invented by Sir Henry Wood, the famous conductor, in the course of his research work on tuning-forks.
- (d) Contracts with heat and expands with cold.

17. The simplest method of identifying steel is:

- (a) By chemical analysis.
- (b) By scrutiny with the naked eye.
- (c) By micro-examination.
- (d) By spark test.

18. Tempering is a process used in order to:

- (a) Harden steel.
- (b) Soften steel.
- (c) Reduce the brittleness of hardened steel.
- (d) Make it possible to put an edge on steel.

19. The hardness of steel cannot be measured by:

- (a) The depth of penetration of cosmic rays.
- (b) The rebound of a steel ball.
- (c) The depth of penetration of a diamond.
- (d) The depth of penetration of a steel ball.

20. "Mimonic" is a term applied to:

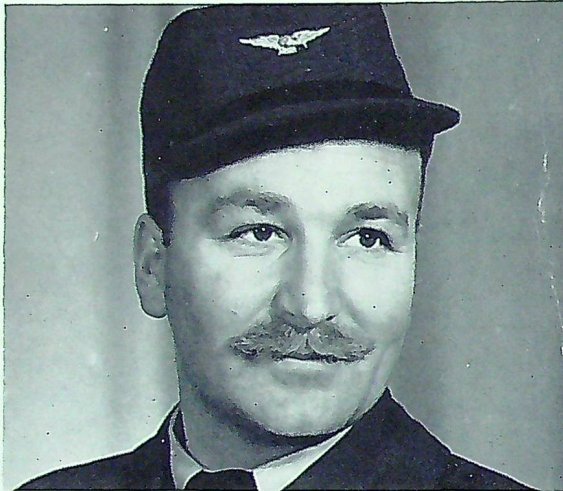
- (a) The type of metal used in stiffeners for corsets.
- (b) The latest types of heat-resisting steels.
- (c) All low-carbon steels.
- (d) A sufferer from "smelter-fatigue".

# The Suggestion Box ★ ★ ★

*The Chief of the Air Staff has written to each of the undermentioned personnel, thanking them for original suggestions which have been officially adopted by the R.C.A.F.*

Cpl. A. L. Mineault, of R.C.A.F. Station Bagotville, and W.O.2 F. M. Lindsey, of No. 426 Squadron, together designed and made a heat deflector for Merlin engines which prevents cracking of exhaust panel and other damage caused by the undue expansion and contraction resulting from excessive heat.

*Cpl. A. L. Mineault.*



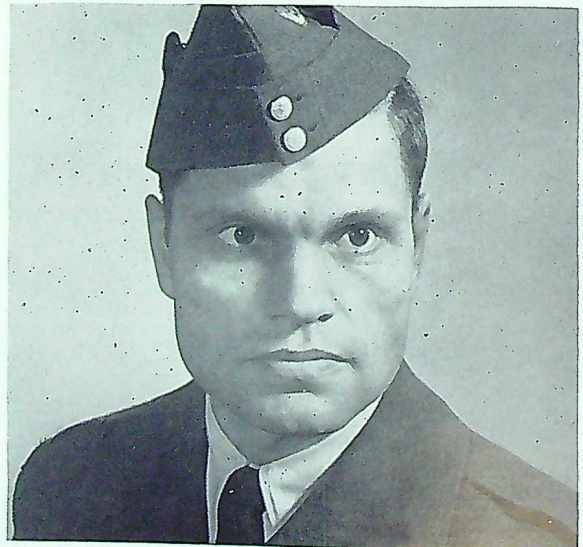
Flying Officer M. Konick, of No. 408 (P.) Squadron, designed a modification to the Ordnance Survey Camera magazine film spool drive, which permits the use of K-17 as well as O.S.C. spools.

Sgt. G. Gibbons, of the Central Experimental and Proving Establishment, designed a new wrench for use on fittings of Sabre hydraulic lines. By increasing the number of grooves in the wrench from 5 to 9 and so reducing the arc through which the wrench must be turned in order to secure a new grip, he has very materially improved the tool's efficiency.

*W.O.2 F. M. Lindsey.*



*Flying Officer M. Konick.*



*Sgt. C. Gibbons.*

# The ROYAL CANADIAN AIR CADETS



By Arthur Macdonald, Air Cadet League of Canada

## TWELFTH ANNUAL MEETING

More than sixty Air Cadet officials, representing every province in Canada, reported last month to the Seignior Club, P.Q. to draw up a blueprint of Air Cadet activities throughout the country in the next twelve months. During the two-day session they were joined by high-ranking R.C.A.F. officers, government officials, and representatives of air cadet organizations in the United States and Great Britain.

The annual conference was preceded by a full-day meeting of the national executive committee, which was attended by the Chief of the Air Staff, Air Marshal C. R. Slemmon, C.B., C.B.E.

At the close of the conference — which was described as “one of the most successful ever held by the League” — the League was able to announce the introduction of a “balanced programme” of training for the Royal Canadian Air Cadets. The 1953 programme calls for a continuation of several well-established features of Air Cadet training along with the introduction of new incentive rewards for large numbers of senior cadets. Here’s how it shapes up:

- More than 17,000 cadets will continue to receive aviation and citizenship training on a one-night-a-week basis in squadrons across the country.
- Upwards of 4,000 cadets will attend summer camps for two weeks at selected R.C.A.F. stations during July and August.
- 250 senior air cadets will learn to fly this summer under special scholarships granted by the R.C.A.F.

- Up to 1200 senior cadets may enroll in the R.C.A.F. Reserve Trades Training Plan calling for special training at the squadrons in preparation for a full-time summer course of eight weeks’ duration.
- One hundred top cadets will attend a seven-week Senior Leaders’ course at Trenton. A 40-cadet precision drill team to represent Canada in the International Drill Competition will be chosen from this group.
- 58 “honour cadets” will travel abroad under the League’s goodwill exchange scheme.

The Reserve Trades Training Plan, mentioned above, was thoroughly covered in the February issue of “The Roundel”. Because of the lateness of the season and other factors, it is not expected that the full quota of 1200 air cadets will be reached. The meeting agreed, however, that the plan should be put into operation as quickly as possible in order to provide the basis for a completely successful programme in 1953-54.

The decision to conduct a Senior Leaders’ course at Trenton reflects the tremendous success of the special technical training course conducted there last summer. Squadrons unable to participate in the Reserve Trades Training Plan will be given preference when making selections for this course. Main purpose of the course will be to prepare senior cadets to accept positions of responsibility with their squadrons. It was decided to select the international drill team from this group because of the excellent opportunities provided for special training and so that the team will be representative of all parts of Canada.



*Executive Committee meeting. Seated, l. to r.: D. R. MacLaren, H. L. Garner, Air Marshal C. R. Slemon, C. D. Taylor, M. B. Bates. Standing, l. to r.: Wing Cdr. C. M. Black, J. G. LeDroit, G. A. D. Will, H. D. Macgillivray, D. A. Ross, G. M. Ross.*

Climax of the Seignior Club meeting came with the election of new officers for 1953. Elevated to the presidency of the League for the coming year was H. Darroch Macgillivray, of St. John's, Nfld., who succeeds H. L. Garner. The new president has been a member of the League since Newfoundland joined Canada in 1949 and was chiefly responsible for the successful introduction of the Air Cadet movement in the tenth province.

Vice-presidents for the coming year are G. A. D. Will, Melfort; Eric M. Duggan, Edmonton; and H. P. Illsley, Montreal. Other members of the executive committee are: hon. president, C. Douglas Taylor; hon. treasurer, R. Scott Misener;

*L. to r.: H. Macgillivray, Wing Cdr. G. Rayner (R.A.F.), Air Vice-Marshal C. A. Stevens (R.A.F.), C. D. Taylor, Air Vice-Marshal F. G. Wait. (Capital Press Service photo).*



hon. secretary, D. A. Ross; immediate past-president, H. L. Garner; V. R. Clerihue; J. G. LeDroit; J. F. Scruton; Dudley Roden; and E. Vopni. Air Marshal R. Leckie, C.B., D.S.O., D.S.C., D.F.C., continues as special consultant.

Considerable time was spent in discussing three matters of primary interest to squadrons during the past year: the expansion campaign, supply of uniforms, and girl cadets.

Regarding the expansion campaign, Mr. Garner reported that 15 new squadrons were opened during 1952 for a total of 236 across Canada. The number of active air cadets did not increase to the extent expected, and it was felt that the difficulty of obtaining uniforms quickly was a contributing factor. The delegates therefore approved a plan, submitted by the R.C.A.F., which would tend to speed up the issue of uniforms to squadrons requiring them. The plan calls for squadrons in one part of Canada to be equipped with new-style uniforms while those in other sections will wear the old style. (It is understood, of course, that new-style uniforms will not be arbitrarily removed from squadrons presently equipped with them.) The geographical areas concerned will be selected by the R.C.A.F.

The subject of girl cadet units was very thoroughly reviewed and it was decided that this matter should be studied by the incoming executive on a high priority basis.

A special feature of the meeting this year was an international exchange planning-conference held under the chairmanship of honorary president C. Douglas Taylor. This conference is held annually to draw up plans for the international exchange of air cadets, and this marks the first time that it has been held in Canada. Seven countries (Canada, United Kingdom, United States, Norway, Sweden, Holland, and Denmark) were represented at the conference.



L. to r.: Air Cdre. A. D. Bell-Irving, O.B.E., Hon. R. O. Campney, D. R. MacLaren, V. R. Clerihue. (Capital Press Service photo.)

Chief speaker at the twelfth annual dinner was the Hon. Ralph O. Campney, Associate Minister of National Defence, who referred to the League as "the very finest civilian organization to be found throughout the length and breadth of this land today."

The speaker reviewed Canada's defence effort, stressing the leading rôle being played by the R.C.A.F. and stating that the League's activities constitute the "finest training ground for cadets and future Air Force personnel in Canada today."

"I am proud to have been associated in a small way with the development of the Air Cadet League," he said, "and I regard that association as one of the most worthwhile and happiest of my life. I regretted exceedingly when pressure of other duties made it necessary for me to give up my active participation in the work of the League. But I never did — and never will — give up my deep interest in its welfare."

## DROPSY

A gentle rain means heavy weather for a large transport plane. The moisture adds as much as 200 to 300 pounds to the weight of the aircraft.

("Air Force": U.S.A.)

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# ROYAL CANADIAN AIR FORCE

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## Association



### YORK MINSTER MEMORIAL

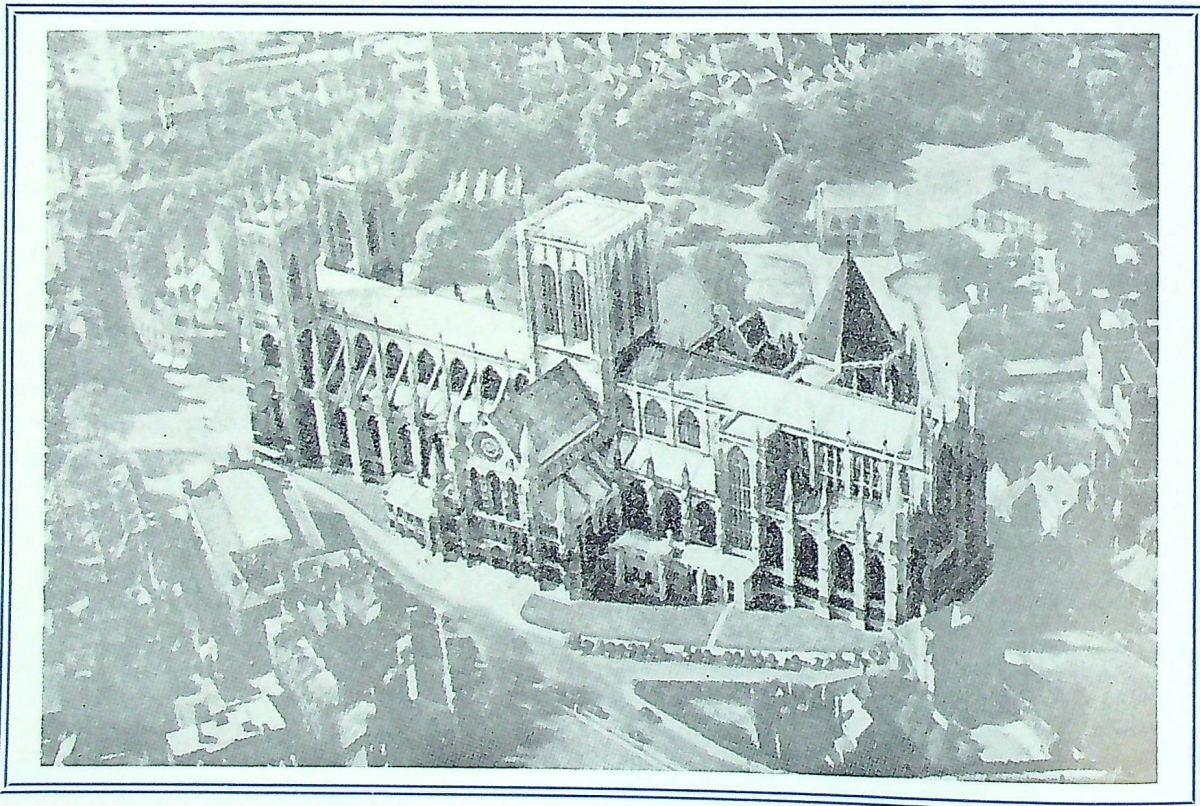
A shrine to perpetuate the memory of Commonwealth and Allied airmen who lost their lives in the Second World War, including those in No. 6 Canadian Bomber Group and other formations based in north-east England, is to be erected in Britain's historic York Minster.

The R.C.A.F. Association has undertaken to raise a portion of the money as Canada's contribution, and a committee has been formed under the

chairmanship of Air Vice-Marshal G. E. Brookes, C.B., O.B.E., who organized 6 Group and was its A.O.C. from January 1943 until the end of February 1944.

Vice-chairman of the committee is Air Vice-Marshal C. E. McEwen, C.B., M.C., D.F.C., who succeeded Air Vice-Marshal Brookes as A.O.C. 6 Group and commanded it until it ceased operations. Other committee members are Graham Morrow, O.B.E., lawyer, Toronto, honorary

*York Minster.*



secretary; H. E. Langford, general manager of the Chartered Trust Company, Toronto, honorary treasurer; and H. M. Cootes, of the firm of Higgins Fred Page & Co., Toronto, auditor.

All contributions should be sent to:

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

Air Vice-Marshal Brookes has named a target of \$5,000 to be raised from Canadian sources. Contributions are being asked from members of the R.C.A.F. Association, members of the R.C.A.F. (Regular, Reserve, and Auxiliary), former members of the R.C.A.F., and from the general public — particularly those who lost relatives and friends and who, for this reason, feel they would like to contribute to the memorial.

The total cost of the shrine is approximately \$30,000, of which about half has been raised so far. Others participating in financing the project include the Royal Air Force, the Royal Australian Air Force, and the Royal New Zealand Air Force.

The memorial, to be set up in the north transept of the cathedral, will feature an astronomical clock showing the phases of the moon and the solstice, and embodying the signs of the zodiac. On the reverse side of the clock will be a map of the night skies showing the constellations of the northern hemisphere. Representations of the types of aircraft flown may also be included.

Under the clock will stand a lectern on which will lie the Book of Remembrance, listing the names of the men who did not return. One page of the book will be turned each week.

Both the clock and lectern will be enshrined in a framework of oak, surmounted by figures symbolic of Courage, Skill, Sacrifice, and Victory. On the sides will be carved and coloured the badges and mottoes of the units which operated from north-east England.

The R.C.A.F. Association hopes that many Canadians will feel this is an opportunity to contribute to a worth-while endeavour.



Group Captain F. R. Sharp, D.F.C., C.O. of R.C.A.F. Station North Bay, was a guest speaker at a meeting of the North Bay Wing. Left to right: Dr. L. Boland, Wing executive; H. Allard, vice-president; Wing Commander E. D. Crew, officer commanding the O.T.U. at North Bay; Group Captain Sharp; D. Rumble, Wing president; Miss J. Williamson, secretary. (North Bay "Nugget" photo).

## MARITIME GROUP MEETING

A. F. Wigglesworth, B.E.M., was re-elected president of the Maritime Group at the annual meeting in Charlottetown where No. 201 (Confederation) Wing was host. Other officers are P. McLellan, vice-president for Nova Scotia; Rupert McCabe, vice-president for New Brunswick; Roy Johnston, vice-president for Prince Edward Island; Ross Gardner, secretary; and Gregory Mulholland, honorary treasurer.

Stanley MacInnis was elected Group representative to the National Executive Council.

The convention was attended by sixty delegates representing seventeen Wings in the Atlantic provinces.

After the business meetings, the annual dinner was held in the Charlottetown Hotel, with delegates and guests in attendance. Before the dinner, Maritime Central Airways was host at a reception.

Guests of honour included Lieutenant Governor T. W. L. Prowse, accompanied by his aide, Wing Cdr. A. G. MacMillan; Mayor J. D. Stewart, of Charlottetown; J. Angus MacLean, M.P.; and



*Officers of No. 500 (Winnipeg) Wing. Front row (l. to r.): W. Flatt, vice-president; J. Robertson; G. McNeil, president; Miss K. McLeod; R. Johnson, vice-president. Back row (l. to r.): D. Angus, secretary-treasurer; G. Walker; D. Stevenson; D. Roffery; E. Carlyle; R. Stewart; A. Eager. Missing from picture: W. E. Ellis, A. Littleford, J. W. Brown.*

Flying Officer G. Gillespie, A.F.C., officer commanding the Ground Observer Corps unit at Truro, N.S.

Reports of other Group meetings were not received in time to be included in this issue.

### "IT'S YOUR AIR FORCE"

Arrangements have been completed with the Department of External Affairs for copies of "It's Your Air Force" to be sent to all Canadian officers abroad for reference purposes. This booklet of information on the R.C.A.F. has been sent out to all members of the R.C.A.F.A.

### NEW MEMBERSHIP

The number of new members joining the Association in recent months has been considerable, following the Wing membership drive and a letter from Air Vice-Marshal A. L. Morfee, C.B., C.B.E., national president, to all former members of the Air Force. However, to increase our strength still more, all individual members are now being asked to bring in as many new members as they can, and application forms have been sent out. Life memberships are being offered to those who bring in more

than ten new members, and there is an additional cash prize to the member who brings in the most new members.

The closing date for the competition is 16 May.

### WITH THE WINGS

**CORNWALL.** The R.C.A.F. Central Band, under the direction of Flying Officer Carl Friberg, gave a concert sponsored by No. 424 Wing. The concert was attended by a capacity audience. Members of the band also played at a well-patronized dance under the auspices of the Wing.

**WINNIPEG.** A good number of members turned out for the first meeting of No. 500 Wing in the new quarters in the Rupertsland Building. A special speaker was Wing Cdr. C. D. Roblin, officer commanding the R.C.A.F. Auxiliary unit at the Rupertsland Building.

**WINDSOR.** Leonard N. Baldock was elected president of No. 412 (Windsor) Wing at the annual meeting. Other officers are J. C. Taylor, first vice-president; J. M. Brassier, second vice-president; J. C. Braidford, secretary; and J. A. Murray, treasurer.

*Delegates of No. 254 Wing to the Maritime Group convention. Left to right: S. Lifsches, president; B. Kelly; D. MacLean; J. Estey; Wing Cdr. J. C. McCarthy, D.S.O., D.F.C., C.Ad.O. of R.C.A.F. Stn. Chatham; W. Gorman, treasurer.*





*The 1953 executive of No. 427 (London) Wing. Left to right: E. J. Verdone, treasurer; W. J. Manson; H. E. Barker; G. E. Carruthers; F. A. C. Trott; W. A. Ballard, past-president; D. Wilson, president; G. W. Brown, vice-president; R. L. Hill; T. P. Hammett, secretary; V. Vernile; C. T. Sutherland. (London "Free Press" photo.)*

**KIRKLAND LAKE.** Following is the executive of the Kirkland Lake Wing for 1953: G. O. Thompson, president; M. Gurevitch, vice-president; J. A. T. Simpson, secretary; R. Faubert, treasurer; L. Charbonneau, F. Yackman, H. Pearce, and M. Robertson, directors.

**SUDBURY.** The new executive of the Sudbury Wing is as follows: H. A. Taylor, president; M. Werbiski, vice-president; R. Lane, vice-president; L. Smith, vice-president; J. R. McCullough, secretary; and A. Cook, treasurer. Additional members are J. Lesser and W. Urie.

**NEWMARKET.** Robert Houston is president of No. 421 (Newmarket) Wing. Other members of the executive are: Roy Penrose, vice-president; Robert

McCabe, vice-president; and Howard Fry, secretary-treasurer. Additional members include Herbert Lawrence, George McNelly, Reid Atkinson, and Harry Markham.

**CALGARY.** At the election of officers of No. 701 (Calgary) Wing, Harold E. Ross was named president. L. Lennon is vice-president; Henry Koentges, treasurer; and Ernest R. Baxter, secretary. Past-president James Taylor is also a member of the executive.

**KENTVILLE.** H. C. Hatfield was elected president of No. 106 (Kentville) Wing, with S. G. Trask as vice-president, and George A. E. Runnells as secretary-treasurer. D. B. Sutton and L. H. Huffman are additional members of the executive.

# Personnel Movements ★ ★ ★

## OFFICERS: JANUARY

- S/L C. A. S. Anderson — 3 (A.W.) O.T.U., North Bay, to R.C.A.F. Stn. Bagotville.  
 S/L S. A. Bascom, D.F.C.— A.F.H.Q. to A.D.C.H.Q., St. Hubert.  
 S/L D. R. Cuthbertson — 2 A.M.U., Lachine, to R.C.A.F. Stn. Portage La Prairie.  
 S/L J. T. Dalton — 1 A.N.S., Summerside, to U. of N.B. Sqn. (P.R.).  
 S/L J. G. Easson, D.F.C.— 30 A.M.B., U.K., to Air Div., France.  
 W/C J. F. Easton, D.F.C.— 12 A.D.G.H.Q., Vancouver, to C.J.S. London.  
 W/C J. F. Edwards, D.F.C., D.F.M.— 430 (F.) Sqn., France, to 2 (F.) Wing H.Q., France.  
 S/L W. W. Fraser — R.C.A.F. Stn. Whitehorse to 2 C.M.U., Calgary.  
 W/C F. Gaffney — A.F.H.Q. to R.C.A.F. Stn. Winnipeg.  
 W/C L. A. Hall — Air Div., France, to 1 P.R.C., Lachine.  
 S/L K. W. Hampson — 14 T. G. H.Q., Winnipeg, to I.A.M., Toronto.  
 G/C A. G. McKenna, D.F.C.— R.C.A.F. Stn. Trenton to R.C.A.F. Stn. Chatham.  
 A/C W. A. Orr, C.B.E.— A.F.H.Q. to 12 A.D.G.H.Q., Vancouver.  
 G/C V. H. Patriarache, O.B.E., A.F.C.— C.J.S. Washington to 2 Grp. H.Q. (Res.), Toronto.  
 W/C A. H. Warner — T.A.G.H.Q., Edmonton, to R.C.A.F. Stn. Edmonton.  
 S/L R. E. Young, M.B.E.— A.F.H.Q. to 2 (F.) Wing H.Q., France.

## OFFICERS: FEBRUARY

- S/L P. V. Brodeur — 1 (F.) O.T.U., Chatham, to R.C.A.F. Stn. St. Hubert.  
 S/L L. R. Chodat — 31 A.C. & W. Sqn., Edgar, to Tyndall A.F.B., U.S.A.  
 W/C J. M. Enstone, M.B.E.— 1 O.S., London, to T.C.H.Q., Trenton.  
 S/L J. C. S. Fair — T.C.H.Q., Trenton, to A.F.H.Q.  
 W/C A. A. W. Findlay — A.M.C.H.Q., Ottawa, to R.C.A.F. Stn. Uplands.  
 S/L C. L. V. Gervais — 427 (F.) Sqn., St. Hubert, to 427 (F.) Sqn., Germany.  
 S/L A. B. Hammond, D.F.C.— 1 F.I.S., Trenton, to 3 F.T.S., Claresholm.  
 G/C G. A. Hiltz, A.F.C.— 14 O.W.H.Q. (Aux.), Toronto, to 4th A.T.A.F., Germany.  
 W/C J. D. Lindsay, D.F.C.— 413 (F.) Sqn., Bagotville, to 1 (F.) Wing H.Q., U.K.  
 S/L W. McLeod — 2 (M.) O.T.U., Greenwood, to 407 (M.R.) Sqn., Comox.  
 W/C J. D. Mitchner, D.F.C.— R.C.A.F. Stn. Uplands to 434 (F.) Sqn., Germany.  
 S/L K. O. Moore, D.S.O.— 111 C. & R. Flt., Winnipeg, to 1 O.S., London.  
 S/L R. H. Morris — T.C.H.Q., Trenton, to P.S.U., St. Johns.  
 S/L A. R. Moulden — C.J.A.T.C., Rivers, to C.J.S. London.

- W/C G. E. Nickerson, D.F.C.— 2 A.F.S., Macdonald, to 3 (A.W.) O.T.U., North Bay.  
 W/C H. R. Norris, A.F.C.— 412 (T.) Sqn., Rockcliffe, to A.F.H.Q.  
 S/L C. F. Sanford — T.C.H.Q., Trenton, to 426 (T.) Sqn., Dorval.  
 A/M C. R. Slemon, C.B., C.B.E.— T.C.H.Q., Trenton, to A.F.H.Q.  
 S/L E. G. Smith, D.F.C.— A.D.C.H.Q., St. Hubert, to 1 (F.) O.T.U., Chatham.  
 W/C K. J. M. Smith — M.G.H.Q., Halifax, to 5 S.D., Moncton.  
 S/L R. V. Virr — R.U., Ottawa, to A.F.H.Q.  
 S/L C. F. Wattie, D.F.C.— 2 A.N.S., Winnipeg, to 1 O.S., London.  
 S/L J. M. Wicken — 1 A.N.S., Summerside, to 1 F.I.S., Trenton.  
 W/C L. A. Yellowlees, B.E.M.— P.S.U., St. Johns, to R.C.A.F. Stn. Bagotville.

## WARRANT OFFICERS: JANUARY

- WO2 C. W. Baine — 412 (T.) Sqn., Rockcliffe, to 4 O.T.U., Lachine.  
 WO1 G. L. Calver — 6 R.D., Trenton, A.M.C.H.Q., Ottawa.  
 WO1 L. R. Coe — 1 S.D., Weston, to A.M.C.H.Q., Ottawa.  
 WO2 F. E. Cooper — R.C.A.F. Stn. Gimli to 2 (F.) Wing H.Q., France.  
 WO2 C. A. J. Gamman — A.F.H.Q. to 2 (F.) Wing H.Q., France.  
 WO2 C. L. Grover — 122 (Marine) Sqn., Patricia Bay, to 2 C.M.U., Calgary.  
 WO2 A. W. Hall — R.C.A.F. Stn. Camp Borden to R.C.A.F. Stn. Claresholm.  
 WO2 L. S. Hall — A.F.H.Q. to 2 (F.) Wing H.Q., France.  
 WO2 W. H. Hamilton — R.C.A.F. Stn. Aylmer to R.C.A.F. Stn. Portage La Prairie.  
 WO1 J. S. Hoare — A.M.C.H.Q., Ottawa, to 2 (F.) Wing H.Q., France.  
 WO2 R. Lay — R.C.A.F. Detachment Fort Nelson to 10 T.S.U., Calgary.  
 WO1 W. J. Mosher — M.G.H.Q., Halifax, to 11 T.S.U., Montreal.  
 WO1 V. H. K. Nicholson — 122 (Marine) Sqn., Patricia Bay, to 2 C.M.U., Calgary.  
 WO1 W. B. Powers — 122 (Marine) Sqn., Patricia Bay, to 2 C.M.U., Calgary.  
 WO2 J. M. Rogers — A.M.C.H.Q., Ottawa, to 2 C.M.U., Calgary.  
 WO1 W. G. Watt — A.M.C.H.Q., Ottawa, to Air Div., France.  
 WO2 G. A. Westhaver — 122 (Marine) Sqn., Patricia Bay, to R.C.A.F. Stn. Summerside.  
 WO2 M. E. Whyte — A.M.C.H.Q., Ottawa, to C.J.A.T.C., Rivers.

### WARRANT OFFICERS: FEBRUARY

- WO2 W. O. Cannings — 413 (F.) Sqn., Bagotville, to 413 (F.) Sqn., Germany.  
 WO2 A. L. Engelbert, B.E.M.— 4 O.T.U., Lachine, to R.C.A.F. Stn. Lachine.  
 WO2 F. J. Hill — R.C.A.F. Stn. Lachine to 4 O.T.U., Lachine.  
 WO1 L. F. Lagrave — A.M.C.H.Q., Ottawa, to 1 S.D., Weston.  
 WO2 S. B. Otto — 2 C.M.U., Calgary, to 2 S.D., Vancouver.

- WO2 A. Ramsay — 434 (F.) Sqn., Uplands, to 434 (F.) Sqn., Germany.  
 WO2 J. K. Robinson — 6 R.D., Trenton, to A.M.C.H.Q., Ottawa.  
 WO2 L. G. Smith — 25 A.M.B., Calgary, to C.E. & P.E., Rockcliffe.

### WARRANT OFFICERS: MARCH

- WO2 A. Bordeau — 6 R.D., Trenton, to 2 (F.) Wing H.Q., France.  
 WO2 R. A. Davidson — 426 (T.) Sqn., Dorval, to 2 (F.) Wing H.Q., France.

### KEY TO ABBREVIATIONS

A.C. & W.	— Aircraft Control & Warning	Grp. H.Q.	— Group Headquarters
A.D.C.H.Q.	— Air Defence Command Headquarters	I.A.M.	— Institute of Aviation Medicine
A.D.G.H.Q.	— Air Defence Group Headquarters	(M.R.)	— Maritime Reconnaissance
A.F.B.	— Air Force Base	M.G.H.Q.	— Maritime Group Headquarters
A.F.S.	— Advanced Flying School	O.S.	— Officers' School
A.M.B.	— Air Materiel Base	O.T.U.	— Operational Training Unit
A.M.C.H.Q.	— Air Materiel Command Headquarters	O.W.H.Q.	— Operational Wing Headquarters
A.M.U.	— Air Movements Unit	(P.R.)	— Primary Reserve
A.N.S.	— Air Navigation School	P.R.C.	— Personnel Reception Centre
A.T.A.F.	— Allied Tactical Air Force	P.S.U.	— Personnel Selection Unit
(A.W.)	— All-Weather	R.D.	— Repair Depot
C.E. & P.E.	— Central Experimental & Proving Establishment	R.U.	— Recruiting Unit
C.J.A.T.C.	— Canadian Joint Air Training Centre	S.D.	— Supply Depot
C.J.S.	— Canadian Joint Staff	(T.)	— Transport
C.M.U.	— Construction & Maintenance Unit	T.A.G.H.Q.	— Tactical Air Group Headquarters
C. & R. Flt.	— Communication & Rescue Flight	T.C.H.Q.	— Training Command Headquarters
(F.)	— Fighter	T.G.H.Q.	— Training Group Headquarters
F.I.S.	— Flying Instructors' School	T.S.U.	— Technical Service Unit
F.T.S.	— Flying Training School		

### AIR POWER-1911

Forty-two years ago a Member of Parliament called Mr. Sandys (not the present Minister of Supply) asked a question of the Secretary of State for War. He enquired whether it was true that the British Army possessed six aeroplanes, of which three were obsolete, and whether it was a fact that by the end of 1911 the French would have 150, the Germans 100, and the Russians 250 planes; whereas the British would own only 10?

The Secretary of State for War was not able to deny the substance of these allegations, although he did refuse to admit that the three aircraft were obsolete. Under further cross-examination he denied that one aeroplane had been bought at the Aero exhibition but admitted that "One was, however, recently purchased second-hand for £625".

("National News-Letter": U.K.)



# The Price of Freedom

By Colonel E. R. Rivers-Macpherson, O.B.E., F.R.G.S., F.R.S.A.

(Reprinted by courtesy of "The Army Quarterly": U.K.)

*"Those who expect to reap the blessings of freedom must undergo the fatigues of supporting it."—Thomas Paine.*

## INTRODUCTION

CERTAIN MEMBERS of N.A.T.O. are at present beginning to writhe under their huge burdens of armaments. In fact, this point has become a major political issue in Britain. Rearmament on the present scale is actually depriving certain N.A.T.O. members of many necessities of life which contribute to a reasonable standard of living. Any reduction in the standard of the latter will tend to engender intense dissatisfaction, which eventually may lead to a lowering of national morale.

What then is the answer? As Thomas Paine says, to enjoy our freedom we must undergo the fatigues of supporting it — never was a truer aphorism! However, a close examination of the International situation reveals one or two cracks in the Iron Curtain through which a glimmer of light is beginning to shine.

## A.B.N.

I refer first of all to the unceasing efforts of the "Anti-Bolshevik Bloc of Nations" better known as "A.B.N." Yaroslav Stetzko, its present Ukrainian leader, has been carrying on a ceaseless underground war for the past twenty-five years against Soviet Russia. Stetzko and the A.B.N. are dedicated to the kindling of revolt among the three hundred million human beings who have lost their freedom over the centuries to many forms of Russian Imperialism, of which Communism is the most recent and the most ruthless.

McKenzie Porter (who writes in a recent number of "Maclean's Magazine") states:

"For all their audacity they do not believe their dream of liberation from within can be accomplished without help from the free Nations. So far this help has not been forthcoming and A.B.N.'s cause looks hopeless. While the U.S. Congress was debating sending another eight billion dollars to support the armies of N.A.T.O. and to strengthen other Nations under the mutual security programme, a Canadian-Ukrainian community hall in Western Canada was holding a rummage sale for A.B.N."

## A.B.N. AIMS

Stetzko aims at the dissolution of two Russian Empires — the outer Empire of eleven satellite Communist States, like Hungary and Poland, as well as the inner Empire of fourteen States and ethnic regions, which, although officially a part of the U.S.S.R., is regarded by many of its disparate peoples as victims of Muscovite oppression. Many, like the Ukrainians, Armenians and Cossacks, who have suffered through the excesses of the Comisars, would, according to Stetzko, if given encouragement from without, rise in open rebellion. A.B.N. has, however, won an increasing number of influential sympathizers in the last year, including the United States' Presidential Candidate, Harold E. Stassen. Its most vociferous champion in the West is the Scottish League for European Freedom. The League's supporters include a member of the Upper House, a professor of law, bankers and editors, etc.

It will be remembered that in an article of mine published two years ago in these pages, I emphasized the importance of exploiting the Ukrainian movement, and in connection with the latter, it is

interesting to note Stetzko's recent remarks to McKenzie Porter who interviewed him in Europe. Stetzko said that whilst he does believe in the inevitability of World War III, the latter need not be the appalling global and atomic conflict generally predicted. Properly supported, A.B.N. could explode the Red Empire at its heart through internal revolution of the non-Russian peoples. Thus it could be localized on Russian and Eastern European soil, since Stalin would have his hands too full to fight elsewhere. It would be a sharp war, but short and merciful. But, Stetzko added, the peoples inside the U.S.S.R. would not rise until certain of outside help. Nor would they rise until assured of racial independence after the conflict.

Here is food for serious reflection on the part of our international politicians! Mr. Anthony Eden is, however, of opinion that war is not inevitable, and I would suggest that if we consider that the old military adage, "the application of the superior force at the decisive point," is applicable to the present situation, we may avoid another shooting war, that is, of course, if A.B.N. is to be treated seriously. We must also be quite certain that any Stetzko-sponsored government would be based on truly democratic standards, and that it would not develop into another Frankenstein's monster.

#### RUSSIA'S OIL PROBLEM

Stalin is very concerned at the moment over their strategic oil position, which is not developing according to plan, and I would suggest that this is much more of a deterrent to any Kremlin ideas of a "hot" war than even our present nuclear supremacy. Until the Soviet leaders are sure of their

strategic oil reserve and supply, they will be loath to open the shooting match.

#### ATOMIC WARFARE

The latest atomic explosion (April, 1952) in the Nevada Flats has taught us a number of lessons, foremost being the fact that adequate counter-measures can be taken to reduce casualties, etc. These lessons are also being carefully studied in the Muscovite Countries; thus the initial strategic nuclear advantage we held will gradually become more and more neutralized as our experiments progress. Eventually, atomic weapons may not be the *tour de force* we imagine them to be, and as General Swing (U.S. Army) recently said, "Atomic weapons are merely added fire-power."

#### CONCLUSION

Meanwhile, until some change of international policy towards the A.B.N. movement is apparent, we must bear "the fatigue" of supporting our price of freedom. There is no other way, but let us not forget the old Chinese proverb: "There are three things which cannot be recalled — a spent arrow, a spoken word, and a lost opportunity." We are tempted to ask the question: "Is the present time opportune to examine closely what Stetzko stands for?" Only a master-mind in international politics can determine that, but come what may, we must never lose our Initiative of Manoeuvre. The cracks in the Iron Curtain are becoming visible to the naked eye; perhaps a more critical and inquisitive attitude on our part may reveal some interesting and penetrating truths.

## THINGS ARE TOUGH

Wearing of shorts on playing fields is prohibited in Canada, whereas a woman daring to ride a bicycle in trousers is risking loss of freedom or a beating by the passers-by. Canada is a country where there is not a single theatre. On the other hand, the Canadian Government is weakly accepting the export of American gangster films and is slavishly disseminating the art of boogie woogie dancing among Canadian youths!

("Dziennik Baltycki": Poland.)

# ONE MAN'S WAR

By Eric Nicol

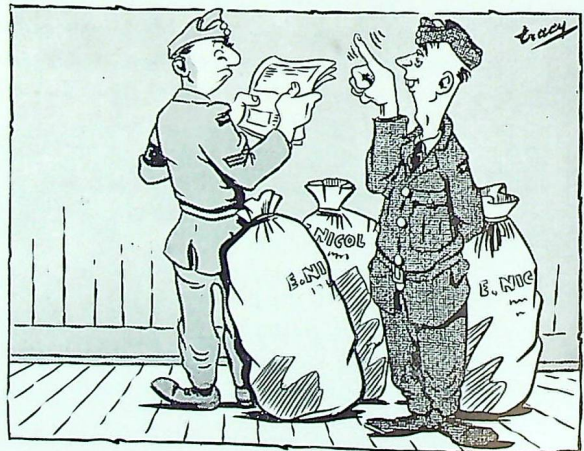
LOOKING BACK, it seems to me that I spent the greater part of the war either trying to get clearance from old units or trying to get bedding from new ones. I had two weeks' annual leave, of course, and I spent a certain amount of time on my knees begging week-end passes so that I could visit my dying uncle. But mostly, as I remember, my major campaigns were those during which I was locked in pitched battle with three duffle-bags — two larger than I, one slightly smaller but twice as crafty — either stumbling out of a camp or crawling into one.

What appeared from camp to be an approaching dust storm often turned out to be me, inching along the road with my three duffle-bags, my posting papers clenched between my teeth, since I was too humble in rank to merit Motor Transport. My rank and trade (General Duties) implied a mental capacity roughly comparable to that of a semi-trained ox, and M.T. despatchers seemed to presume that I had a similar ability to haul heavy loads over long distances. If they were in a beneficent mood, as they sometimes were on Christmas Day or if they were expecting their discharge, they would let me ride with the garbage run. It always sobered me, when I was posted, to leave camp with the garbage, bouncing up and down, I and the cans, on the back of a truck, almost as much as when I rode into a new station with a truckload of toilet tissue and other dispensables. Those were times that made me wonder whether I was vital to an allied victory.

Upon my arrival at a new unit, the first official ceremony while I was still standing dazed and lost in the middle of camp, surrounded by my duffle-bags, was for a Service policeman to come along and bawl me out for not wearing the dress of the day. It was my experience that no two camps ever agreed on the same dress of the day. One camp

would insist on your wearing a tie, another would drag you feet first in front of the station warrant officer if you had anything around your neck but a dirty ring. At one unit, everybody would be pounding about in shorts, at another shorts would get you 30 days and a long talk from the padre.

After being told off by the Service policeman, my next move was to find the orderly room and report in, a routine which required worrying the duffle-bags down numerous corridors, then standing waiting for somebody to look happy to see me. Nobody ever looked happy to see me. In fact, nobody could see me at all. I'd stand at the counter, the teeth flashing out of my sweaty, dust-lined face, and the clerks would never even notice me. If they happened to look up from their work of typing sheets and tearing them up, they would stare right past me, or through me, until I developed the gnawing suspicion that I had somehow become transparent. Only when a clerk had to come to the counter anyway — to spit or something — was I handed a reporting-in form, to be made out in triplicate and handed back with my right eye as a token of good faith.





At the station warrant officer's office I was welcomed without enthusiasm. Aside from going red in the face and ordering somebody to open a window, the S.W.O. himself would have nothing to do with me. An underling would study a map of the camp and, having determined which barrack block was farthest away, would assign me to it. But before I could start my safari towards this remote hutment, it was usually dinnertime and people were leaving their posts at a gallop. Desperately hungry but ignorant of the location of the mess, I would abandon my duffle-bags and lope after someone with the same rank I had. Sometimes this person proved to be running for a bus or the lavatory or some similarly foodless objective, and I'd have to find another runner of my rank and swing in behind him.

After dinner I usually experienced some difficulty in obtaining bedding. During the day it was a relatively simple matter to track down the duty storekeeper, requiring only a few hours at the most and providing an excellent opportunity to look over the entire station. On some of the more progressive stations where they had a golf course for the personnel, I could look for him out on the course, too. Or he might be hiding at the bottom of the station's swimming pool. But, at least in the daylight, the new arrival had a fair chance of getting his bedding.

At night, however, it was necessary to conjure up an evasive sprite called the Orderly Corporal.

It was characteristic of all units that the Orderly Corporal, immediately upon donning his armband, turned into a will-o-the-wisp that could be found only with the aid of bloodhounds. Since most units couldn't provide a pack of bloodhounds out of their non-public funds and hardly anybody ever donated even an old pack, the bedding-hunter had to lie in wait along certain paths which Orderly Corporals were known to frequent, notably the one to and from the wet canteen. Orderly Corporals and Orderly Sergeants shared the weakness of being unable to hide very long without stealing stealthily down to the beerhole to drink.

Once I had the Orderly Corporal cornered, I asked for some bedding. Now, if there was anything one of those creatures hated, it was giving you bedding. You got the impression that they wove the blankets themselves and received the linen from the hands of their old Irish mother, before she passed away from acute alcoholism.

But after I had picked up the bedding from the road, where the Orderly Corporal had thrown it, heaped it on top of my duffle-bags, and pointed myself in the direction of the distant barrack block, I began to feel that I was once more a baptised member of the station's personnel. I could look forward to making new friends. I could look forward to learning new tricks of my trade. I could look forward to another posting.

(*"Torch": Can.*)

# THE COMPLEAT SURVIVALIST

By Flying Officer L. W. F. Beasleigh, Survival Training School.

I'd asked for it some months before. Furthermore, since taking the summer bush-course, I'd been wearing loud wool shirts and high boots off duty and spoiling the fit of my blues by carrying a small axe and a hunting-knife. So —

"O.K., scribe," said the O.C. one day in January. "The time's come. Get out on the winter course and round out your education."

I snapped out a cheerful enough "Yes, sir!". After all, this January was more like a mild fall than winter. When, however, the temperature took a shocking dive to 35° below zero during the night before my departure, the pioneering spirit of the Beasleighs dropped with it. But it was no good. Once again, I was up against nature in the raw.

With the feeling of seeing a movie for the second time, I got out of bed on the Day and dressed in everything but the sleeping bag, which I found rather hard to walk in. Then I drove out to the station and joined the students in the mess for the early breakfast. A couple of them recognized me as "Staff" and expressed their willingness to have me join their camp, thinking (poor deluded lads!) that it would be a great break for them to have a staff "gen" man along. I expressed my appreciation of their high regard, but spoke of the poor circulation that accompanies so advanced an age as mine. I then went on to say that I really couldn't see the station getting along for two whole weeks without me, and that the chances were that I would be recalled long before the completion of the course. So, all things considered, there wasn't much point in my making any definite plans. My eloquence had the desired effect. They walked away, muttering something about chickens.

"Here we go again!" I said to myself as we boarded the bus. But it wasn't quite the same as before. This time it took seven hours, instead of five, to get to the de-bussing point. The road, in places, was under fourteen inches of snow, and the

five-mile walk in was no picnic. My many layers of clothing made me sweat and chill, sweat and chill. "Pneumonia!" I thought — almost hopefully. I began to ask the other students if it came on all at once or if there was a waiting-period between asking for it and getting it. But after three miles mind triumphed over matter, and I turned to wondering what type of accommodation awaited us. It would, I reasoned, have to be something better than tents, now that winter was here.

As we turned into camp, there before us we saw a big well-built hut that hadn't been there in the fall. Spirits soared, and we sprinted the last few yards. I rapped on the door. Almost immediately an instructor poked his head out. Leering hideously, he said:

"Not here, chaps. Over there." And he pointed.

For a few seconds we were too busy to look. We were inhaling the aroma of roast beef that floated out from inside the hut. When eventually we did turn, all that met our gaze were parachute shelters — and the thermometer on the door said 38° below!

The situation was absurd. I studied it briefly, and concluded that this poor chap had obviously been out without a hat and had got some frost in

*The author being checked out in dog-handling.*



his noggin. It was clear that he was not in possession of a full set of marbles. I was still pondering on the best course of action in the circumstances, when the officer in charge came up and said: "Don't stand around, fellows. Get into your shelters before you catch cold."

Inside the shelter it was colder than outside. This, however, was home; and, after a brief introduction to our civilian instructor and a lecture on the use of the axe, we settled down to produce a meal. Here my previous experience started to pay off. The rations still tasted every bit as bad as before, but this time I ate them. After lunch we made a quick recce of the area and discovered evidence of rabbits in large numbers. Simple snares were set, and two rabbits were on hand for the evening meal — rabbit à la meat bar — which we almost enjoyed.

The less said about the first night the better. I still become a little hysterical whenever I dwell on it, although I freely admit that I had only myself to blame for crawling into the bag, covered in snow, without so much as removing my hat or gloves.

In the morning, after a breakfast of boiled oatmeal bar, tea without cream, and two hard candies, I had reached a new low in despondency. I was telling myself to be brave, when a well-fed, contented-looking lad approached and told me to report to the instructors' shack. I brightened. "Just as I thought", I told myself. "The station

*Inside a parabrush shelter.*



*The Press, in the person of Mr. R. Johnson, enjoys a dip.*

needs me back." But it didn't. When I reached the shack, I discovered that two gentlemen of the press had arrived, and that I, as station P.R.O., was needed to give them the old shot.

I sat and batted the breeze with them while they waded through bacon, eggs, toast, jam, and coffee. It was probably this subtle torture that brought out the mean streak in me. After a while I steered the conversation around to the problem of keeping clean in the bush.

"How do you manage without a shower?" they asked.

"Well," I replied, "we're right on the MacLeod River," and I went on from there.

The upshot was that, after using all I had learned from "How to Win Friends and Influence People," I eventually had them both down on the river bank beside a big hole I'd hacked in the ice.

"There you are," I said. "Get in."

"Won't you join us?" They asked.

I casually explained that I had had a bath in this fashion earlier, when the air was crisp and more bracing. "There's really nothing to it, and anyway it's only 15° below now." They bought it. Having stripped off, they stepped in, one after the other. I, like the good chap I am, helped them get the bath over quickly by throwing buckets of water over them. Of course, as a serious-minded P.R.O., I had a photographer handy in order to record what a colossal beating the human frame can take.



*My companion on the trail.*

I tried every trick in the book to keep those two iron men in the bush for as long as possible, because while I was with them I was enjoying the high-grade instructor-type groceries. But after I'd shown, demonstrated, and explained everything for the third time, they became bored and began to yearn for the flesh-pots of Edmonton.

When, with sincere regret, I had seen them on their way back to the city, I reported to the officer in charge. I suggested that, since my group had departed on trek, there were two courses of action open for my disposal:

1. to keep me in instructors' quarters so that I might become better acquainted with local problems, or
2. to send me back to Edmonton with the outgoing course.

But instead of complimenting me on my quick appreciation of the situation, he told me to hit the trail and find my group.

Off I staggered with pack, gun, and snow-shoes. My directions had been vague. An instructor had pointed roughly north-west and said: "They should be that way over the hill close to a big lake." Being a navigator, I considered it beneath me to ask for more explicit directions. Just as I was leaving camp, Sgt. "Curly" Sproat came out of the cache and asked if I would mind dropping off some ammunition and rations to a group camped near my objective. I nearly lost control at that; but I managed to pull myself together and to explain quietly that for a person such as I the load I was carrying was already inhuman and that he was indeed overestimating my strength. Sgt. Sproat thereupon disappeared into the cache and

returned with a huge evil-looking dog that was carrying a pack at least as heavy as my own. He explained that I was simply to take the mutt along and drop him off at the required spot.

At first I didn't really appreciate my canine companion: he looked as though he would willingly eat me if he got hungry. But after an hour or so on the trail a bond of sympathy had sprung up between us, and we plodded on in silent comradeship. I still haven't figured out which of us did the leading, but we reached our destination in good time despite the sketchy directions I'd been given.

Although the location and much of the equipment used on the winter course is the same as that used on the summer course, problems are entirely different. One of the biggest of these problems is to rid a man of his fear of cold. It does seem ridiculous, I suppose, to lie down to sleep in a bag beneath a lean-to shelter in sub-zero temperatures. But it no longer seems ridiculous once you've done it. In fact, it seems quite a reasonable procedure. As for food — well, nothing looks quite so empty of it as snow-covered bush country. None the less, you soon come to realize that there's plenty of food, both animal and vegetable, if you know how to find it. (On the course of which I am writing, though, nothing could have really got me down. Throughout the seven days on trek, all I had to do was conjure up the picture of the press men taking their bath, and all my difficulties melted away.)

I must add that I developed my friendship with the dog, and that it was only the great respect I had for him that prevented me from stealing some of his rations. They were a great deal more attractive than my own. Good dogs, of course, are harder to come by than Flying Officers.

\* \* \*

And now — the Compleat Survivalist — I can cope with Nature in any of her moods. Red in tooth and claw, I can live off the land south of the tree-line, either in winter or summer, with only the very barest essentials to help me. I can nourish myself on roots, pine needles, rabbits, birds, and fish. I can smoke spruce bark. With nothing but an axe and a knife, I can sleep comfortably in a blizzard at 50° below zero.

I can do all these things — but I'd still much rather not do any of them.

# The Fifteen Vital Qualities

By J. Kenneth Salisbury

*(Mr. Salisbury is Division Engineer of the Thermal Power Systems Division of General Engineering Laboratories, Schenectady, U.S.A. The qualities described in his article are those which, in his opinion, are the most to be desired in an engineer engaged in industry. With obvious changes made, however, his words apply equally well to those who are called upon to accept responsibility in almost any organization that can be named.—EDITOR.)*

*(Reprinted by courtesy of the "General Electric Review")*

HAVE YOU ever asked yourself the question "Why did I know so little 10 years ago about what really is important?" Every one of us would conduct his life differently if today he had the wisdom of 10 additional years. There is only one reason for the non-existence of this happy situation: none of us really understands a situation that he himself has not experienced. Wisdom simply is not made of second-hand knowledge of the lessons learned by others.

Every normal industry in this nation that is led by intelligent forward-looking executives wants to improve. Industry does not assume the character of its financial statement or of its physical facilities; rather, it assumes the character of its people — people who are identified by their personal characteristics. In the long run, therefore, industry can improve itself only by adding employees with desirable characteristics.

What are the desirable characteristics that we'd like to find in engineers? What are these qualities in terms that are tangible and specific? To me, there are 15 vital qualities, and I'd like to present them in approximate order of importance.

The first five qualities are absolutely essential for an engineer to attain the acme of professional accomplishment and standing. We may class these qualities, therefore, as **INDISPENSABLE**. The second group we may class as **ESSENTIAL**; the third can be called **IMPORTANT**, although I doubt that this word is strong enough.

Any single engineer who possesses all of these good qualities is a superman. All of us, on the other hand, have most of these qualities to some degree. Let us now consider each of the qualities in the order named.

## INDISPENSABLE QUALITIES

**Technical ability**, although developed formally in a college engineering course, usually is also the product of one's environment, hobbies, and natural inclinations. It can be divided into two major subdivisions: creativeness and ingenuity; and analytical ability. Only rarely does an engineer of high technical ability possess both to an outstanding degree.

One normally tends to catalogue engineers either as analyzers or as synthesizers — the analyzers are the appraisers and evaluators; the synthesizers are those who are creative and ingenious in devising new ways of doing things. This sharp division is somewhat fallacious, however, because there is considerable overlapping.

I think I am reasonably safe in placing technical ability on the top of the list of essential qualities. It is a prerequisite to notable success in engineering. It is not, however, as the mathematicians say, a "necessary and sufficient condition."

**Aggressiveness** must accompany technical ability. One must, for example, have the energy, the vigour of intellect, and the spark to exercise his

technical ability, or it avails him nothing. He must have the will to win.

Every engineer with experience in industry has encountered the person of superb technical competence, capable of handling with ease fourth-order differential equations, or solving the most difficult problem in thermodynamics, but incapable of initiating the accomplishment of any useful objective.

These people tend to sit in a corner and wait for their problems to come to them. They perform beautifully when given a specific assignment and a date on which it must be completed. They never go to the boss and say, "I have been thinking about this project, and I think I see a solution to this major problem." They do not initiate new work in which they can make full use of their talent.

On the other hand, all of us have known people with mediocre technical ability who are continually thinking about the job, and who perform assigned work expeditiously to the full extent of their somewhat limited abilities.

These are the aggressive ones — the ones who are outstanding performers when used within the limits of their technical abilities. They move swiftly and surely. Things happen when they are around. Often such people have a high degree of intelligence and horse sense but are not naturally gifted in technical matters. They recognize their limitations, and it is the problem of management to make available for their assistance others who excel them in purely technical matters. Thus is formed a team that has more capacity than the sum of the capacities of the individuals.

Leaders in industry frequently have aggressiveness as their outstanding characteristic. It is the high-octane quality that drives them to top accomplishment. Aggressiveness to a high degree, however, may have unfortunate consequences unless it is accompanied by the third indispensable characteristic.

Understanding of human relations is vital in the business world. The aggressive engineer who does not comprehend through his understanding of human relations the effect of his aggressiveness on his associates is likely to incur their serious dis-

pleasure, and as a result fail to obtain their cooperation.

Skill in human relations implies an innate personal kindness — a tolerance toward the shortcomings of others. Above all, it requires fairness in dealing with people and a generosity of spirit. In a supervisor it requires a comprehension of the things that motivate the individual, a recognition of his merits, and a knowledge of his weaknesses.

Only rarely in industry does an engineer make a complete failure of his career through lack of technical ability alone. He may be consigned forevermore to the ranks of mediocrity, and his professional attainment may be at a very low level. Nevertheless, he usually is permitted to earn a satisfactory living, and to fill a place in industry however lowly it may be, provided he gets along with his fellow workers.

On the other hand, there are numerous failures in industry that result from lack of understanding of human relations. These are the people who within the first minute of a conversation arouse a feeling of antagonism. These are the ones who disregard the rights and sensibilities of others, who rise by stepping on the shoulders of their associates. Such gains are transient. They are effective for a brief moment, but they build up a permanent deficit in the human-relations account. They presage the future lack of co-operation by others that limits the engineer's accomplishments.

One must dispense compliments to subordinates sparingly, and only with complete sincerity. In fact, it has long been my opinion that the key to all understanding of human relations lies in a single word: sincerity. The man who is really and truly sincere never has difficulty in getting along with his associates. His objectives, his motives, and his activities are known and understood by everyone.

It is the cagey ones, the tricky ones, and ones with ulterior motives who have difficulty. It is the ones who "speak not as they think" that have trouble. This does not, obviously, prohibit the use of tact in one's dealings with his fellow engineers, but it does completely eliminate untruths and half-truths, and concealment of pertinent facts.

Responsibility is the fourth indispensable characteristic. The successful engineer must have



high personal and company standards of responsibility. He must be willing to accept responsibility even though it is not specifically thrust upon him. He must assume that he is personally responsible for the success of the endeavors in which he is engaged. He must accept responsibility for failures like a man, and he may also, though modestly, take unto himself responsibility for successes.

Moreover, he must realize that he and his company are one and the same. He must relieve his boss of concern for the project assigned to him. In return his boss is obligated to support him in all reasonable requests for assistance. He must make decisions, but at the same time have the good judgment to consult his superiors on any questionable decision that he may be called upon to make, because this is the essence of responsibility. The individual must make decisions, and he must make progress to the fullest extent of his ability. At the same time, he must recognize his limitations and assume complete responsibility for determining when he has reached the limit of his ability to make decisions.

**Personal integrity**, the fifth indispensable quality, may also be called high-mindedness. It is the all-consuming insistence of the engineer that he do what is right at all times. It is character. A former president of the General Electric Company once stated that, "Essential qualities for engineers are ability, personality, and character — that the greatest of these is character." Those who lack it — who are too smooth, who are too clever in the reprehensible sense — are limited forever.

Personal integrity implies an intrinsic honesty, an intellectual fairness in all things, and good judgment. It is sincerity. It is the quality that speeds transaction of the day's business. It is identified by promises that are kept, though made in a word or two, even when forgetfulness might provide a plausible excuse. It eliminates the need for written instructions, and for confirming memoranda.

#### **ESSENTIAL QUALITIES**

**Leadership and organizing ability** are the first of the qualities essential to a brilliant career.

They can be developed by all engineers, even in the earlier years. Leadership is the product of many things, including the five indispensable characteristics.

Invariably, leadership includes the important ability to inspire one's associates. Inspiration frequently is the result of one's conduct of his own personal job. An emulation of the boss's approach to problems is natural and normal. The members of his organization nearly always reflect his standards and aspirations. For this reason, then, if for no other you may demand that your boss be a superior person. Indeed, he must be, if you wish to improve yourself. Subconsciously you will acquire at least some of his personal characteristics.

Administrative ability has been typified by one accomplished engineer of my acquaintance in one word — persuasiveness. To convince others to do things, one must clearly explain the over-all objectives, the logic behind the method of procedure, and the worthwhileness of the objective. Only when subordinates can carry on without assistance from the leader has he accomplished the basic purpose of organization: delegation of responsibility.

**Responsiveness** is my own private term for a combination of characteristics. It is a willingness to see the boss's point of view, and an intense desire to carry out any reasonable objectives laid down by him. It is co-operativeness, promptness, reliability, dependability.

Also, it is important to your boss that reports, either verbal or written, be accurate. He doesn't want a situation exaggerated or minimized — he wants facts. Responsiveness and reliability are highly valued by any supervisor, and usually well rewarded.

Engineers in industry are expected to have initiative and originality, and to require only occasional supervision. A large part of what they actually do is self-inspired, and intended to be. Occasionally, however, a specific instruction is given by a superior, either on a small task, or on one of considerable duration. Such instructions should take priority over self-inspired work, which must be deferred until the specific objective is accomplished. Responsiveness is that characteristic



which causes the engineer to set to with a will, finishing the work competently, and in the shortest possible time.

**Adaptability** increases the usefulness of any engineer. He must be willing to undertake any assigned job, and to devote his every effort to mastering it, regardless of whether it is his personal choice.

Adaptability is a willingness to work under handicaps. Regardless of where an engineer works, there are situations that are not palatable to him, that make it more difficult for him to carry out his assigned responsibilities, and that slow him down. There are always handicaps. One must live with them and make the best of them. One must be adaptable, and willing to accept these things, because they exist universally, and appear in many forms.

**Perspective** is the quality that permits an engineer to assign correct relative importance to all things within his scope. It is the quality that permits him to make approximations when they are justified; it is the quality that impels him to work on things which are important to his company, or which may be important in the future. The man who has perspective invariably does first things first, relegating non-essential items to a later time in his work schedule.

Perspective is the quality that enables an engineer to understand his position in an organization and in a company. Also, it enables him to assume authority when he should, to delegate it when he can, and to consult his superiors when it is advisable. An engineer without perspective is a ship without a rudder. Although experience is bound to improve perspective, perspective is basically a native talent. Engineers with perspective are able to select the critical problems, the ones that are really pressing, because they clearly see the overall size and shape of the main issue.

**Introversion and extroversion** are very personal qualities which, when they appear in combination, are of tremendous value to an engineer. The introvert is the thinker — the man with internal self-confidence that can result in useful, progressive, forward movement. On the other hand, for maximum achievement the

engineer must combine a modicum of extroversion with his normal introversion. His introversion enables him to seclude himself, and after objective study, to arrive at the right answer. However, his extroversion then enables him to sell it to his associates and to his superiors. No idea, regardless of its worth, is of value until it is implemented.

The inarticulate engineer, no matter what his competence, may be doomed to a life of monotonous intellectual activity and investigation. He lacks the ability to communicate thoughts. The pure extrovert is doomed to remain forever a front man, a hand-shaker, and a back-slapper.

But the man who combines introversion and extroversion can do his research and investigation to arrive at a course of action that should be pursued. He then can take his plan to the court of authority that exists in every company and convince this court of the wisdom of adopting his suggestions. If he makes a design, he can convince the draftsman to put it on paper. Likewise, he can convince the shop man to build it. Neither extroversion nor introversion is important; a combination of the two in various proportions is, however, desirable.

These, then, are the indispensable and the essential characteristics of successful engineers, as I see them. And now let us consider more briefly some additional important ingredients of success.

#### IMPORTANT CHARACTERISTICS

**Ethics**, both company and business, are the responsibility of the engineer. So many safeguards are set up in the modern industrial organization that it is nearly impossible for any individual engineer to violate his company's code of ethics. He should strive not only to live by this code but also to spread its implications among all his associates. It is a most precious asset for any company. It is easy for an engineer to live in his environment if his personal code of ethics is consistent with that of his company. It is hazardous and unpleasant for him if it is not.

**Cost consciousness** is an important attribute — consciousness not only of dollars but also of manpower, of materials, of effort. Every engineer

eventually controls to some degree the expenditure of these ingredients of his company's products. He must exercise this control wisely, and with perspective.

**Confidence** is tremendously desirable. The engineer must have confidence in success, in himself, and in his company. He can then give to those with whom he works the strength of spirit and the morale that are essential to forward progress. Confidence does not mean cockiness. It is rather a quiet conviction of competence and adequacy. Confidence is the quality that lends us strength. It is born of experience — past successes.

**Efficiency** causes one to economize on his time, to plan his work well, and to exercise extreme self-discipline. To a very considerable extent, it is the young engineer's integrated effort over his first 10 years in industry that measures his accomplishment at the end of that period. His work is not only in the interest of his company but even more in the interest of self-development. It is my firm belief that the individual profits far more by his own intensive effort than does his company. Your company can survive with a low level of effort on your part, but you cannot.

**Optimism** is a virtue the world around. All of us have known the man with a negative attitude. He can be convinced, but it takes hours of valuable time. He usually is the ultra-cautious conservative type. He never can be an outstanding member of any organization.

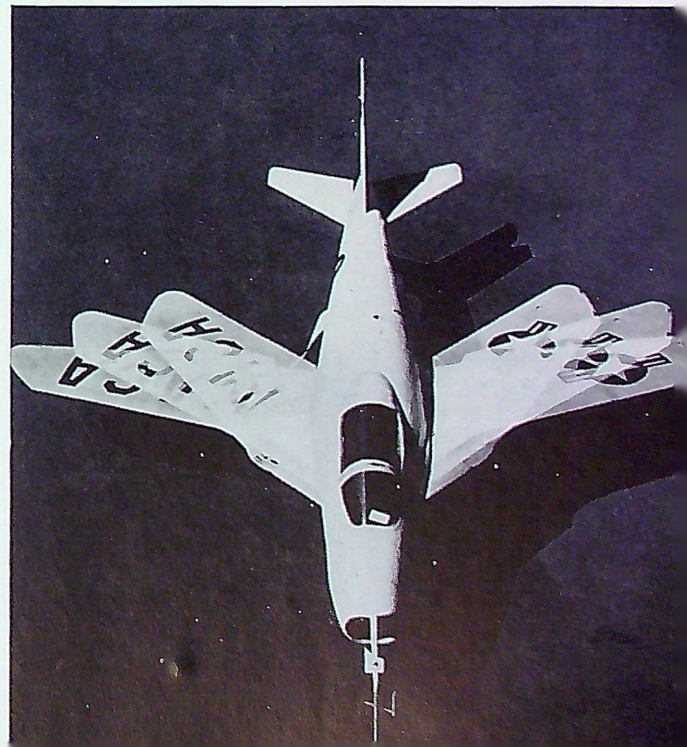
Then there is the boss who is predisposed to accept your solution. He assumes you are right until he uncovers evidence to the contrary. He believes in you as an intelligent conscientious being. You like him. You enjoy working with him, being around him. He attracts competent people, for this reason alone. They co-operate, and his business prospers.

\* \* \*

These, then, are a few of the qualities that help make a success of any chosen career. All of them are characteristics of the individual and only a few pertain to his degree. One's education represents the minimum qualification. It does not guarantee success. The qualities discussed, on the other hand, if one has them in full measure, will ensure his rise above the median, not only in engineering, but in any profession.

## VARIABLE WING-SWEEP

This multiple-exposure photograph shows the range through which the wings of the Bell X-5 are moved in flight. The X-5, which is the world's first 'plane to be able to vary wing-sweep in flight, has produced valuable information about problems of flight at high subsonic speeds as well as data concerning the aerodynamic effects of changing the angle of wing sweepback during flight.



# Letters to the Editor ★ ★ ★

## A CADETTE HOPES

Dear Sir:

I thought that perhaps some of your readers might be interested in hearing a Cadette's opinion of things.

We do a considerable amount of good, I think, by helping to push things which our Squadron O.C. and Wing O.C. want us to push — and there is always the hope that some day Ottawa, amidst all its fan-mail, just may decide that we Cadette's have become firmly established and tell us that we can wear cap badges now, and be proud of ourselves and say "At last we're official!" I hope it won't be too long before this happens because I will soon have to quit.

As regards our training, we are (in Vancouver, at any rate) doing mostly drill. We have a precision flight and we are practising to enter into a competition against one of the squadrons of boys in Vancouver. We also have lectures on first aid — mainly the treatment of burns and things which could happen on a station; and we have a G.O.C. (Ground Observer Corps) class, without a lecturer. We have a very capable W.O.2 who does her best to teach us what she herself has been spending her leisure learning about aircraft recognition and similar topics. It gets pretty grim both for us and for her sometimes.

Most of us, strange as it may seem, love drill. We thrive on it. We have to. All the same, it's a whale of a lot of good training which we small females are storing up. All in all, I think it is worth while even if we never do get recognized. But it would be very nice to be able to have more instructors with a wider knowledge of things aeronautical.

Also it *would* be nice to go to Summer Camp!

Cpl. Judith E. Mooney,  
No. 5 Squadron, No. 1 Wing, R.C.A.C.

## A.P.A. 2 & 3 REUNION

Dear Sir:

For the past four years (this will be the fifth), a number of the boys who were detached to the R.A.F. Records Office in Gloucester, England, have been having an annual get-together. The fellows I refer to were later posted to London (Base Accts., at Harrod's) and were known as A.P.A.2 and A.P.A.3, handling promotions and postings.

The boys have kept in touch pretty well. Our first two reunions were staged in the Eglinton Hunt Club (now R.C.A.F. Station Toronto), and the last two in the King Edward Hotel, Toronto. Our fifth is scheduled for Saturday, May 2nd, again in the King Edward, with sit-down dinner, etc.

Probably some of the old types would like to know about it, even if distance makes them unable to attend. (Our mailing list is 99% Ontario and Quebec.) If, however, they can and would like to attend, they can be sure of a real welcome.

Ex-Flt. Sgt. K. A. Drage.

## 434-431 SQNS. ASSOCIATION

Dear Sir:

On behalf of 434-431 Squadrons Association, I have been asked to write you and inform you of the aims of our Association. They are:

- To perpetuate the spirit of comradeship enjoyed when the squadrons were active, and to attempt to keep in touch with future members of the squadrons (if and when they are reformed).
- To hold meetings at least twice a year in the form of banquets or dances.
- To keep all members informed as far as possible of the Association's activities.

Our Association has been operating since March 1947, and we are quite proud of our record. We operate without collecting dues of any kind. Our Spring Dance is scheduled for Saturday, April 18th, 1953, at the Club Top Hat, in Toronto. Admission is \$1.50 per person.

N. W. Macdonald,  
Secretary, 434-431 Sqns. Ass'n.

*(In view of the date of the dance, we are sorry we did not receive Mr. Macdonald's letter in time for the March issue of "The Roundel".—EDITOR.)*

## JANUARY ERROR

Dear Sir:

On page 24 of the January issue of "The Roundel" there appears a picture captioned "A North Star salvage project at Resolute Bay."

This Headquarters would like to point out that this aircraft is not a North Star but an American C-54.

Wing Cdr. C. H. Mussells, D.S.O., O.B.E., D.F.C.  
Air Transport Command H.Q.



## Answers to What's the Score?

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

*A fool dreams of wealth, a wise man of happiness. (Turkish Proverb)*

# *It's up to you, Ladies!*

Ably championed by the old wardog himself, Cpl. Twitterwhistle has made her point, and "The Roundel" now gapes hungrily for the wit and wisdom of our airwomen. Printed below is the list of subjects suggested by the Airwomen of Barrack Block 17 as being appropriate. It can, of course, be added to indefinitely — but it should be borne in mind that the function of "The Roundel" differs in kind, though not in importance, from that of a station newspaper.

- Outstanding airwomen—their civilian background; their previous wartime service (if any) in the R.C.A.F. or other air force; their sports or hobbies; their photographs.
- Airwomen's sports teams which have achieved some degree of Command or inter-Command recognition.
- Airwomen's concert or entertainment groups; photographs of outstanding performers.
- Personal reminiscences of a humorous or dramatic nature.
- Photographic studies, drawings.
- Airwomen's groups active in work of national, Service-wide, or Command interest.

Please send all contributions direct to:

Cpl. Alice Twitterwhistle,  
c/o "The Roundel", R.C.A.F.  
Victoria Island,  
Ottawa, Ont.

