

The ROUNDDEL

Vol. 4, No. 1
JANUARY 1952



ROYAL CANADIAN AIR FORCE



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

VOL. 4 No. 1

JANUARY 1952

* * * **CONTENTS** * * *

EDITORIAL

	<i>page</i>
Sgt. Shatterproof Taps the Reservoir	1

ARTICLES

No. 441 (Silver Fox) Squadron	4
A.M.E.S. 894: Part 8	17
Air Superiority	31
Happy Warrior	38

REGULAR FEATURES

Royal Canadian Air Cadets	13
R.C.A.F. Association	26
What's the Score?	36
Personnel Movements	44
Letters to the Editor	48

MISCELLANY

Modern Warfare	20
A Tribute to No. 421 Squadron	21
The Suggestion Box	22
A Footnote to the Royal Visit	23
New Expediter	23
Royalty Signs the Log	24
Don't Forget Your Pine Tree	35
Standardization	43
What! No Sinks?	45
"Looking Back"	46

This Month's Cover



LAC F. R. Bushey (in cockpit) and
 LAC L. L. Mason (in intake) work on
 one of No. 438 Squadron's F-86's at
 R.C.A.F. Station Uplands.

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

Sgt. Shatterproof Taps the Reservoir

Sir:

During the course of our literary association I have more than once had occasion to refer to my ancestors. As you may have noticed, all of them had one thing in common. They were men of action, not men of dreams. Ever breasting the torrent of current events, we Shatterproofs have had little time for more than the tasks in hand. We have left the past to the historian, the future to the philosopher. For us, the battlefield has always been the present.

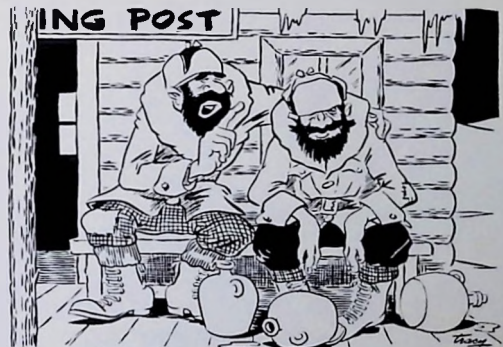
And yet there are times when even a Shatterproof must lean on his sword and direct an eagle glance into the mists that lie ahead. In days such as these, when mere reiterated burpings everywhere pass for the expression of constructive thought, it behooves us leaders to consider well what stand we shall take. To what sort of treatment (we must ask ourselves) is the universal flatulence most likely to respond? — To the antacid of diplomacy or to the brisk cathartic of the atom-bomb? Furthermore, who is to treat whom, in a world where to-day's fault may be to-morrow's virtue, and where (if we may judge from the past year's promotion lists) the cheesecake-loving lad of 1952 may be numbered among the Brass of 1953?

These are problems whose solution demands more than ordinary wisdom. We must no longer seek to evade them by distracting the public mind with the ever-louder assertion of our good intentions. We must do as our forefathers did. We must tap the vast reservoir of occult knowledge. We must consult the oracles.

At this point, Sir, I see you blanch. I see you sit upright in the editorial chair and reach for your tea with a trembling hand. I hear your broken cry: "So it has happened! The strain of office has proved too much for the old wardog. That mighty intellect has cracked at last!"

But let us withhold our judgment. I am suggesting nothing pagan. I am quite aware that very little of lasting value would be achieved were the Cabinet and the Air Council to march three times anti-clockwise around the Parliament Buildings, clad only in maple leaves and invoking the Spirit of Democracy. Nor do I propose that the Padre should sacrifice W.O.I Gallstone on a battery-cart and scrutinize his entrails for hints of things to come. No; I am simply affirming that, although my own attempts to divine the outcome of sporting events have never met with much success, I still believe in the possibility of Second Sight. (After all, even the prophecies of the Meteorological Service do occasionally seem to point to the working of something more than chance.) Therefore it was with an open mind that I set about formulating my policy for the coming year. I turned for guidance to the predictions of Harpoon Hank, the Seer of Cyclops Sound.

Regrettably little is known of this remarkable man. Like a meteor, his genius briefly illumined the Arctic towards the end of the last century; but his origin and his ultimate fate are both shrouded in mystery. Fortunately for posterity, however, among the handful of men whose paths he crossed was a certain Caber McEldritch, the farthest-flung factor of one of Canada's great trading-companies. A close friendship sprang up between the two lonely men — a friendship that was destined to endure until McEldritch at last succumbed to one of the epidemics of *delirium tremens* which seem to have taken heavy toll of



whites and Eskimos alike in that particular region.

It is to McEldritch's diary (happily preserved from oblivion by my great-uncle, Constable Cougar Shatterproof, of the North-West Mounted Police) that we owe what meagre information we have concerning Harpoon Hank. Each winter, we learn, he used to visit the trading-post in order to barter the simple produce of his still for a few of the comforts of life, such as food, snooze, and bullets. Their business done, the two men would seal their bargains in the customary manner, usually talking far on into the three-month night.

As the weeks went by, a subtle change would steal over the sturdy old pioneer. His weather-beaten face would become suffused with purple patches, his eyes grow glassy and his speech thick. Presently he would stagger to his feet with a convulsive shudder and begin to dance ponderously round the stove, meanwhile emitting a hoarse chanting. Then, when his fey mood had exhausted itself, he would fall flat on his face and sink into a slumber that sometimes lasted until the return of the sun.

The average man might easily have misconstrued such performances. But McEldritch was not an average man. He was a Scot, endowed with all

the Celt's heritage of mysticism. Here, he perceived, was a clear case of the Sight — a manifestation of the same Power that had spoken in the past through the lips of the Auld Wife of Killicrankie, the Cauld Lass of Auchterader, the Bald Lad of Ballachulish, and many another well-attested mouthpiece of the Uncanny. Like the man he was, he saw his duty and he did it. He took to recording in his diary the words uttered by Harpoon Hank during his seizures.

Were the sands of time not fast running out, Sir, I would like to quote the McEldritch diary at some length. But we cannot afford to dally in literary pastures when the very foundations of our society are crumbling beneath us. All I propose to do for the moment is to scatter abroad a few of the more pregnant seeds of Harpoon's wisdom, trusting that here and there they may fall on fertile soil.

* * *

Seer though he was, Harpoon was not always preoccupied with the future. Sometimes he contented himself by giving simple expression to one of those eternal truths which govern men's lives. In the following lines, for example, he impresses upon us the oft-forgotten law of cause and effect:

*Rock-a-bye baby on the tree-top;
When the wind blows, the cradle will rock.
If the tree breaks, the cradle will fall —
And down will come cradle and baby and all!*

At other times we hear his voice raised in warning. He speaks, among other matters, of inflation. In the first of the next two quatrains he shows us what happens when the high noon of false prosperity is passed; in the second, he offers us a shocking glimpse of the inevitable sequel:

*Hickory dickory dock,
The mouse ran up the clock.
The clock struck one, the mouse ran down.
Hickory dickory dock!*

*Old Mother Hubbard went to the cupboard
To fetch her poor dog a bone;
But when she got there, the cupboard was bare —
And so the poor dog had none.*

But that he was no Old Testament patriarch, thundering out threats of perpetual torment, is





clearly shown by the merry little couplet in which he forecasts economic recovery:

*The butcher, the baker, the candlestick-maker —
They all jumped out of a hot potato!*

For Harpoon Hank (as for others, whom modesty forbids my mentioning, Sir) there was no compromising with the sacred principles of justice. His horror of racial discrimination echoes forth in ringing tones:

*Eeny meeny miny mo —
Catch a nigger by his toe.
If he hollers, let him go!
Eeny meeny miny mo.*

But by far the most startling of all his utterances was unquestionably that which relates to man's first hesitant attempts to span the interplanetary gulfs. It remains for a later age, of course, to comprehend the symbolism of the last two lines.

*Hey diddle diddle, the cat and the fiddle —
The cow jumped over the moon!
The little dog laughed to see such sport,
And the dish ran away with the spoon.*

* * *

And there we have it, Sir. I need quote no more. We stand aghast at the implications of the thing. Here in our Canadian Arctic, almost three quarters of a century ago, was a man who foresaw most of

the problems that confront our generation to-day. At times he was trying to tell us the answer — the answer (let us face it in all humility) of the child — at times he did no more than warn us.

LAC Bladder, who is an omniverous reader, informs me that several of Harpoon Hank's inspired rhymes have somehow found their way into a popular anthology compiled by a lady who calls herself "Mother Goose." This is as it may be: from time immemorial the hack has capitalized on the genius. If, however, LAC Bladder is right, let us only pray that most of the news commentators, columnists, and other Minor Prophets of this noisy age may study "Mother Goose" with care.

They might, indeed, even limit themselves rigidly to direct quotations from it. I, for one, would not feel myself any the less informed.

P.S. Can I hold out any hope to the boys in the field for cheesecake in 1952?*

* Consult Mother Goose.— Editor.

No. 441 (Silver Fox) Squadron

By Wing Commander F. H. Hitchins, Air Historian

ONE OF THE LATEST additions to the expanding fighter strength of the Royal Canadian Air Force is No. 441 (Silver Fox) Squadron, which commemorates one of the outstanding Canadian fighter units of the Second World War. The war-time history of No. 441 covers a period of forty months, from the end of April 1942 to the beginning of August 1945. For most of that time the squadron was engaged on operational training and uneventful escort and patrol duties. Its career as an active fighter unit was compressed into the brief space of six months between 28 March and 30 September 1944; yet in those few months No. 441 established a record of achievement in combat which compares very favourably with that of other fighter squadrons which were in action for much longer periods. Sixty-eight enemy aircraft and more than 500 ground targets (vehicles, tanks, barges, locomotives, bridges, flak posts, radar stations, V-1 sites, etc.) destroyed or damaged by bullet and bomb testify to the fighting spirit of the pilots led by Sqn. Ldrs. G. U. Hill, D.F.C. and two Bars, J. D. Browne, D.F.C., T. A. Brannagan, D.F.C., and R. H. Walker.

Originally designated No. 125 (F), the squadron was formed at Sydney, N.S., in the last days of April 1942, as one of a group of new units organized at that time to strengthen our coastal defences following Japan's entrance into the war and the



Sqn. Ldr. G. U. Hill, D.F.C.

Sqn. Ldr. R. H. Walker.



extension of Germany's U-boat campaign to the western shores of the Atlantic. Flt. Lt. C. W. Trevena was in command during the first few weeks of training on Harvards and Hurricanes. On 3 June 1942, Sqn. Ldr. R. W. Norris succeeded him as C.O., and a few days later No. 125 moved to its war station at Torbay, Nfld., to provide fighter defence for the important St. John's area.

Here the squadron remained for a year, carrying out routine dawn and dusk patrols, scrambles to investigate unidentified aircraft, searches and innumerable exercises. Despite occasional rumours and alarms, however, enemy air raiders never appeared and the pilots had no opportunity to put their constant training to the test. To make their work more interesting, Sqn. Ldr. Norris devised an ingenious scheme for fighter "strikes" against U-boats operating close in-shore; but in this rôle too his pilots were denied a chance to demonstrate their skill.

During the first few months at Torbay service-ability was a serious problem, as the Hurricane I's, with which No. 125 was initially equipped, were well-worn and difficult to maintain. The situation improved with the delivery of II-B (or, as they were also called, XII) Hurricane fighter-bombers, and the squadron claimed the honour of making the first "Hurribomber" demonstration on this side of the Atlantic.

While at Torbay, No. 125 suffered two casualties. Sgt. D. B. Ruggles was killed in an accident while on low-level formation practice, and LAC G. C. Bellerive lost his life in the tragic fire which swept a hostel in St. John's in December 1942. Two pilots joined the Caterpillar Club when they had to parachute from disabled aircraft. As a precaution in case they were forced down in the bush in winter, the aircrew were given a "survival course" in woodcraft, during which they learned how to erect shelters, catch rabbits and fish, build fires, and take care of themselves while awaiting rescue.

In June 1943 the squadron returned to Sydney, on exchange with No. 128 (F) Squadron, and for the next five months continued its routine of defensive patrols and operational training. Thanks to a combination of better weather, more aircraft



Sqn. Ldr. T. A. Brannagan, D.F.C.

and aircrew, Sqn. Ldr. Norris's unit was able to put in almost twice as many flying hours as had been possible at Torbay. The squadron's membership in the Caterpillar Club was also doubled when two more pilots had to bail out of their Hurricanes.

In October, after demonstrating their efficiency for the Deputy Inspector-General, the pilots and groundcrew of No. 125 were informed that they had been selected as one of six R.C.A.F. home squadrons which were to go overseas to join 2nd T.A.F. Two months of intensive training followed; then, in December, the personnel left Sydney for three weeks' leave prior to reassembling at Lachine on 13 January 1944.

Accompanied by two other fighter squadrons, No. 125 arrived in England at the end of January, and, after a fortnight at Bournemouth for the inevitable documentation and accounting, the three units were despatched to Digby in Lincolnshire. Here, on 13 February 1944, No. 125 was redesignated No. 441 (R.C.A.F.) Squadron, and, together with Nos. 442 (formerly No. 14) and 443 (formerly No. 127), constituted a new R.C.A.F. fighter wing (144) which had the renowned Wing

Cdr. J. E. Johnson, D.S.O., D.F.C. and Bar, (R.A.F.), as wing commander flying.

To give the new squadron a leaven of pilots with recent fighter experience overseas, several veterans were posted in, including Sqn. Ldr. G. U. Hill, D.F.C. and two Bars, and Flt. Lt.'s L. A. Moore and T. A. Brannagan. George Hill, who now replaced Sqn. Ldr. Norris in command, had a score of fourteen enemy aircraft destroyed, plus a dozen more probables and damaged, in combats over France, North Africa, Sicily and Italy, while Moore and Brannagan, the two flight commanders, had several victories to their credit. Under their skilful leadership, the pilots of No. 441 quickly completed their conversion training on Spitfires, and on 18 March the squadron moved with the Wing to its first overseas war station at Holmsley South, in Hampshire.

Ten days later 144 Wing carried out its first operation over enemy-held territory, when two squadrons (Nos. 441 and 442), led by Wing Cdr's Johnson and E. P. Wells (R.N.Z.A.F.), made a sweep from St. Valery to Chartres. As the Spitfires passed over the Luftwaffe airfield at Dreux, the pilots noticed many aircraft parked in the dispersals. Leaving No. 442 above as top cover and decoy for the flak defences, Johnson and Wells brought No. 441 down in a strafing attack out of the sun. Four German aircraft were set on fire and four more were damaged, while a flak tower and several buildings on the airfield were raked with bullets. Few squadrons could boast so brilliant a success on their initial sortie against the enemy.

In the next four weeks No. 441 made more fighter sweeps and bomber escorts (without seeing one enemy aircraft), moved from Holmsley South to Westhampnett, and travelled north to Yorkshire for an air-firing and bombing course. Then, late in April, it rejoined the Wing, now based at Funtington in Sussex, and embarked on a period of intense activity, hunting the enemy in the air and dive-bombing targets on the ground. The squadron fought its first air combats on 25 April, when the Wing pounced upon and annihilated a formation of six F.W. 190's. No. 441 accounted for two of the six, but lost two of its own pilots,

Sqn. Ldr. George Hill (who had to crash-land and was taken prisoner after a gallant effort to evade), and Flying Officer R. H. Sparling (who disappeared over the Channel on the homeward flight). Sqn. Ldr. J. D. Browne succeeded Hill in command of the squadron.

Dive-bombing attacks on V-1 sites, bridges, and radar stations, were the major feature of operations in May, with one encounter with the Luftwaffe during a fighter sweep on the 5th, in which the squadron added two more Focke-Wulfs to its score. Flying Officer P. A. McLachlan was missing after the dog-fight; he was last seen attacking one of the enemy.

From Funtington the squadron moved to Ford, on the Sussex coast, for the final pre-invasion operations. Rumours that had been circulating for days were confirmed on the evening of 5 June when the pilots were sent out to patrol over the great armadas of vessels that were beginning to move

Sqn. Ldr. J. D. Browne, D.F.C.





Lord Trenchard visits the squadron at Longues, August 1944. Air Vice-Marshal H. Broadhurst, A.O.C. 83 Group, 2nd. T.A.F., stands at end of cannon.

across the Channel. On one of these patrols Flt. Sgt. V. A. G. Brochu had to bail out over the sea when his engine failed. For 42 hours he floated in his dinghy before being rescued. Recovering from his ordeal, Brochu rejoined his unit a month later.

From D-Day until D+9 (June 15th), the squadron kept watch from dawn to dusk over the convoys and the beach-head, encountering no opposition except flak. Flying Officer J. E. West was lost on one patrol. One day (June 10th) a wing formation that included six of No. 441's pilots landed — amid clouds of dust — on a strip on the Norman beach to refuel and rearm between sweeps. They were the first British aircraft to operate from France since June 1940. Five days later the Wing left Ford and moved across the Channel to B.3 landing strip at St. Croix-sur-Mer.

While the ground battle raged along the Caen front, the fighter pilots flew patrols over the battle lines and reconnoitred along roads leading up to the front, strafing the enemy's tanks and vehicles. The German fighter force was now more in evidence than it had been in the first weeks of the

Lord Trenchard speaking to the squadron at Longues.





Digby, June 1945. Left to right: Flying Officer D. C. Gildner; Flt. Lts. D. H. Kimball, D.F.C.; A. B. Smith, D.F.C.; Flying Officer G. D. Morrison; Flt. Lt. H. E. Derrough; Sqn. Ldr. R. H. Walker; Flying Officer G. E. Heasman; J. A. McIntosh.

invasion, and No. 441 enjoyed a very successful period. Prior to D-Day the squadron had destroyed nine enemy aircraft, in the air and on the ground, and had damaged four. In the five weeks between 22 June and 27 July it shot down 37 Nazi fighters (mostly F.W. 190's) and damaged at least three more. Three of the destroyed were brought down by Wing Cdr. Johnson while flying with the squadron. No. 441's losses during this period were three pilots missing beyond the lines. One was killed, another was taken prisoner, and the third was able to evade capture and returned to his unit after seven weeks' absence.

The scoring opened with two successes in a brief encounter on 22 June. Four more destroyed and one damaged were added in a dog-fight over Gace on the 30th, one of the victories being credited to Sqn. Ldr. Browne, who was making the last sortie of his first tour. In the combat amid the clouds, Flying Officer J. W. Fleming was forced down behind the enemy lines and captured. Brannagan

Normandy. Flying Officer L. A. Plummer, Sqn. Ldr. T. A. Brannagan, Flying Officer W. J. Myers.



stepped up to command of the squadron when Browne ended his tour and received the D.F.C.

These victories in the last days of June were the prelude to even more spectacular triumphs in July. On the 2nd, four pilots bounced eight or ten enemy fighters and shot down six, Flt. Lt. L. Moore and Flying Officer R. Lake accounting for five while Flying Officer A. J. McDonald destroyed the sixth before he himself was hit by flak and had to crash-land. Rescued by some young Frenchmen, McDonald went into hiding until he was able to rejoin his friends.

Near Alençon, on the evening of 5 July, a squadron formation of twelve Spitfires, led by Wing Cdr. Johnson, engaged an equal number of Focke-Wulfs in a dog-fight that ended with eight of the enemy crashed and burning on the ground and at least two more damaged. In the action Flying Officer Bill Chowen, after assisting in the destruction of one F.W. 190, shot down another at such close range that he collided with his target and his Spitfire crashed out of control.

For 13 July, the last day in the brief career of 144 Wing, No. 441's score was ten destroyed at a cost of one slightly damaged Spitfire. Three were shot down by Flying Officer W. J. Myers, two fell to Brannagan's guns and three more to those of other pilots in his section. So quick and decisive were the combats that, by the time Black section, flying in the rear, could reach the scene, the ground was dotted with "aircraft crashing and exploding." Few targets were left for the Black pilots, but they managed to catch two before the dog-fight ended for lack of further opponents.

On 14 July, 144 Wing was disbanded, its squadrons being assigned to other wings in 83 Group. No. 441 (the leading squadron in 144 Wing, with a total of 39 destroyed and seven damaged) was attached to 125 (R.A.F.) Wing at Longues. In the next fortnight the pilots added seven more F.W. 190's and Me. 109's to their score, then enemy air opposition virtually vanished except for flak, which became more vicious every day.

Hitherto the squadron's armed reconnaissances against enemy transport had not been particularly fruitful. No. 441's total with 144 Wing had been 24 M.E.T. destroyed in flames, 21 "smokers" and



Sqn. Ldr. R. W. Norris.

25 damaged, plus several locomotives, barges, flak towers, and buildings. But as July drew to a close and the Nazi position became more critical following the American break-through in the west, ground targets became much more plentiful. Scarcely a day passed without a few more tanks, armoured fighting vehicles, trucks or cars, to add to the score and the wreckage that littered the Norman highways. For No. 441 Squadron this work reached its climax on the two days of August 18th and 19th, when the pilots counted 23 "flamers," 28 "smokers," and 48 damaged on the congested roads of the Falaise "pocket." These were conservative figures, for there were so many vehicles jammed on the roads that the pilots claimed only those which they were certain had not been damaged previously. By the end of August the squadron's M.E.T. score had grown to 155 "flamers," 136 "smokers," and 192 damaged.

In their low-flying attacks on the Wehrmacht's vehicles, the pilots had to run a gauntlet of light flak that was sometimes so intense that they reported the weather as "10/10th flak." Many of the Spitfires returned with wings and fuselage



Flt. Sgt. E. McClinton talks crops with a Norman farmer.



Flying Officer P. A. McLachlan.

peppered with holes; three did not come back. One of the pilots, Flt. Lt. Guy Mott, got down safely by parachute and, after dodging enemy troops, walked back to the Allied lines. Another pilot, Flt. Lt. W. W. L. Brown, was killed in the crash of his aircraft, and the C.O., Sqn. Ldr. Brannagan, was taken prisoner. Sqn. Ldr. R. H. Walker succeeded Brannagan and led the squadron until it was disbanded a year later.

After the slaughter of the Falaise "pocket," the tide of battle flowed eastward so rapidly that the fighter squadrons based in Normandy were soon left far out of range. No. 441 had already made one short move forward from Longues to Lingevres, near Tilly-sur-Seulles, on 13 August. At the beginning of September it set out to rejoin the battle, going first to Beauvais, then on to Douai, and finally, on 17 September, to Antwerp in Belgium, where it was once again in "the front line." The squadron reached its Belgian base just in time to participate in the heavy air fighting that followed the Allied airborne landings at Arnhem, Nijmegen, and Grave.

In the brief time that the squadron operated from Douai (near Vimy of First World War fame) the pilots made a number of armed recesses over Flushing and the mouth of the Scheldt, collecting a few more vehicles and losing temporarily Flt. Lt. R. G. Sim, who was winged by the intense flak barrage. Sim landed safely by parachute,

found friends on the ground, and within six weeks was safely back in England.

At Antwerp, where the airfield was within range of the enemy's guns, No. 441 was chiefly engaged on patrols over Arnhem and Nijmegen to protect the bridges which the Luftwaffe reportedly tried to bomb. In six engagements with German fighters and fighter-bombers, Sqn. Ldr. Walker's pilots destroyed ten Me.109's (including one shot down by the R.A.F. Wing Cdr. A. G. Page, D.F.C., who was their wing commander flying) and inflicted damage on at least five more. Two pilots, Flt. Lt. Bernard Boe and Pilot Officer Osman McMillan, were killed in one dog-fight against heavy odds (nine v. about thirty) over Nijmegen. Forced to abandon their attack on the vital bridge across the Waal, the enemy jettisoned their bombs and retired, leaving three of their number burning on the ground.

Me.262's, the new Nazi jet fighters, were occasionally seen during this period, but they were usually able to streak out of range before the Spitfires could close. Once, on the morning of September 30th, Flt. Lt. Lake was able to fire a damaging burst into one Me. before it pulled away. This brief encounter proved to be the squadron's last combat of the war.

In the six months since No. 441 carried out its first war mission on 28 March — and won its first victories — the squadron had amassed a total

of 56 enemy aircraft destroyed and at least 12 damaged. The most successful pilots, all of whom were decorated with the D.F.C. for their work with No. 441, were:

	Destroyed	Damaged
Flt. Lt. D. H. Kimball.....	6	1
Flt. Lt. G. E. Mott.....	5½	1½
Sqd. Ldr. T. A. Brannagan.....	5½	
Flt. Lt. R. G. Lake.....	4½	2½
Flt. Lt. L. A. Moore.....	3	1½
Flying Officer W. J. Myers.....	3	

Wing Cdr. J. E. Johnson had destroyed 3½ aircraft while flying with the squadron.

On the afternoon of September 30th, after Lake's combat with the jet, No. 441 left 125 Wing and flew to Hawkinge, Kent, exchanging places with No. 402 Squadron. The squadron's rôle now was to provide fighter escort for formations of bombers making daylight raids into Germany. But not once on the 25 escort missions which the pilots carried out in the twelve weeks they spent

Sqn. Ldr. A. R. Mackenzie, D.F.C.



at Hawkinge was an enemy aircraft seen. The only opposition was from heavy flak, frequently intense and unpleasantly accurate, and from the weather. Returning from one attack upon Cologne late in October, the Spitfires encountered masses of cloud and severe icing. Two aircraft disappeared in the clouds. The pilots, Flying Officer A. J. McDonald and Pilot Officer V. A. G. Brochu, had both been reported missing on previous occasions. Brochu, it may be recalled, had been rescued from the Channel after two days in his dinghy, and McDonald had walked back from the other side of the lines. This time, unfortunately, they did not return.

On the long-range sorties — two and a half hours was about average time — the Spitfire pilots of No. 441 frequently flew escort to Lancasters and Halifaxes of No. 6 (R.C.A.F.) Group in attacks on Bomber Command's priority target, the synthetic oil plants in the Ruhr. They were able to observe that the flak defences of "Happy Valley" were still living up to their reputation. On many occasions the fighter pilots also sighted the "contrails" left by V-2 rockets as they were fired against England.

After celebrating Christmas at Hawkinge, the squadron travelled north to spend the rest of the winter in isolation at Skeabrae in the Orkneys, with one flight detached to Sumburgh in the Shetlands. No. 441's work during these three months in the far north resembled No. 125's activities at Torbay. Routine defensive patrols were flown over the great naval base at Scapa Flow, on guard against raiders that did not come, and the rest of the time was devoted to operational training. Pilot Officer J. E. Bohemier and Flt. Lt. E. W. Martin were lost during this period.

Without regret the squadron left its bleak home in the north and returned to Hawkinge early in April 1945 to resume its escort rôle for the heavy bombers. It was six months since the fighter pilots had so much as seen an enemy aircraft or fired a shot in action. Hopes that there might yet be an opportunity to score a few more victories were doomed to disappointment. After six escort jobs had been completed (including two particularly impressive attacks on Heligoland and

Wangerooge), the bomber offensive ceased for lack of targets.

Just before V-E Day, No. 441 moved to Hunsdon, where it joined its old comrade, No. 442 Squadron, which also had been engaged on bomber escort work during the last month of the war. The two units remained together until their final disbandment. From Hunsdon they went to Digby, their overseas birthplace, and there, at the end of May, Sqn. Ldr. Walker's pilots exchanged their Spitfire 1X-F's for Mustang III's. In July the two Canadian Mustang squadrons moved again to Milesworth in Huntingdonshire. A few days after arriving at this station, Flying Officer E. J. McCabe was killed in an accident near Hull while making a cross-country flight.

On 7 August 1945, No. 441 Squadron was officially disbanded. Flt. Lt. D. Kimball, D.F.C., "A" Flight commander when the squadron broke up, had the unique distinction of having completed 32 months' continuous service with the same unit. He had first joined it as a sergeant pilot at Torbay in December 1942. After 12 months' service in Newfoundland and Nova Scotia, he had accompanied No. 125 overseas and flown throughout the whole of No. 441's overseas tour from February 1944 until its disbandment 18 months later.

At home and overseas No. 125/441 suffered fourteen fatal casualties. Three pilots were taken prisoner, and four others returned safely after being reported missing. Nine members of the squadron were decorated with the D.F.C. The squadron badge, adopted in the last months of the war, depicts a silver fox's mask with the motto "Stalk and Kill."

Early in 1951, nine years after it had first been formed in Canada, No.441 Squadron was recreated at St. Hubert as a new unit in the R.C.A.F.'s rapidly-growing Air Defence Command. The commanding officer, Sqn. Ldr. A. R. MacKenzie, D.F.C., is a veteran fighter pilot who fought



overseas with Nos. 421 (Red Indian) and 403 (Wolf) Squadrons. In the last months of 1943 he destroyed four enemy aircraft, with a share in another, while flying with the Red Indians on fighter sweeps over Northern France. Four more destroyed and a damaged were added to his score in dog-fights over Normandy in June and July 1944, when he was a flight commander with the Wolves. Initially, No. 441 Squadron is being equipped with Vampires pending receipt of Canadian-built jet fighters.



The ROYAL CANADIAN AIR CADETS



By Arthur Macdonald, Air Cadet League of Canada

THE PAST YEAR

As 1951 drew to a close, it was clearly evident that the Air Cadet movement across Canada had reached a new peak in enthusiasm. In all parts of the country the talk was of expansion, squadron attendance figures were well up over last year, and new units were being formed at a steady rate.

The 1951 meetings of the League's Provincial Committees marked the close of an extremely busy and eventful year for the Air Cadet League. Without exception they were better attended and more enthusiastic than in any year since 1944. The high point of each provincial meeting was an inspirational address delivered by President H. L. Garner, who made a coast-to-coast tour to attend every meeting. General Manager George M. Ross reported for League Headquarters, while the R.C.A.F. was represented in the travelling party by Wing Cdr. C. M. Black, D.F.C., newly appointed Air Cadet Liaison Officer at R.C.A.F. Headquarters, and Flt. Lt. D. J. Bullock, who has taken over the important post of Air Cadet Training Officer at Trenton. The respective Air Officers Commanding were also in attendance along with their Air Cadet Liaison staffs.

The following paragraphs give a few highlights of the year's activities in each province.

British Columbia

All squadrons conducted active recruiting campaigns during 1951, and Air Cadet strength in the province now exceeds 1,000. Two new squadrons, Nos. 525 (West Vancouver) and 531

(Trail) were opened. Six B.C. squadrons also operated flights of girl Air Cadets which have been extremely successful, and several units have formed mothers' auxiliaries to assist the squadrons in social activities.

British Columbia was well represented in the flying training programme, 37 lads reporting to the Aero Club of B.C. for training. Four cadets were selected for exchange visits and two lads entered Royal Roads under League scholarships. In addition, the province was represented at the D.C.R.A. rifle competition in Ottawa by a squad from No. 89 Squadron, Victoria.

Congratulations are extended to No. 22 (Powell River) Squadron, which won the Guthrie Shield for the third consecutive year.

At the annual meeting of the provincial committee, Mr. V. R. Clerihue was elected chairman to succeed Air Commodore A. D. Bell-Irving, O.B.E., M.C., (ret.), who has given the committee outstanding leadership over the past two years.

Alberta

Under Provincial Chairman Harry F. Francis, of Calgary, the Alberta Provincial Committee supervises the activities of no less than 33 squadrons having a total enrolment of close to 2,000 Air Cadets. The province has done an outstanding job on the expansion campaign and now boasts the largest per capita population of Air Cadets in the country.

Alberta has an impressive record in flying training, and the province was awarded the A.T.C.



League President H. L. Garner receives a presentation from Mr. C. Douglas Taylor at the meeting of the Quebec Provincial Committee in Montreal. (Richard Arless Associates photo.)

Trophy for obtaining the highest average marks on the final air and ground tests. The Air Cadet League of Canada Trophy, awarded to the cadet obtaining the best score in flying training, was won by Cadet Roger J. Neill, of No. 12 (Edmonton) Squadron. Close to 700 Alberta cadets attended summer camp last year, and five top lads were selected for exchange visits.

Special mention must be made of No. 187 (High River) Squadron, which carried off the Guthrie Trophy awarded annually to the most proficient squadron in western Canada.

Saskatchewan

Provincial Chairman G. A. D. Will reports a sharp increase in the number of active squadrons and enrolment of cadets. At year's end there were 24 squadrons in Saskatchewan, and cadet strength stood at approximately 1400. It is anticipated that further new units will be opened in 1952.

Last summer, 18 Saskatchewan Air Cadets reported to flying clubs in the province. Thirteen lads obtained Air Cadet wings and were carried on to private pilot's license standard by their sponsoring committees. Four cadets were chosen for exchange visits and two lads received League scholarships to attend the Canadian Services Colleges. In addition to these special awards, 426 lads attended summer camp at Abbotsford.

Competition for the Guthrie Shield was extremely close, with No. 30 (Estevan) Squadron emerging as the final winner.

Manitoba

Close to 60 delegates from across the province attended the Manitoba annual meeting held in Winnipeg under the chairmanship of Edward Vopni. The delegates reviewed an extremely busy year and made tentative plans to move in several new directions in 1952.

At year's end, Manitoba had 13 squadrons in operation, and cadet strength was close to 1,000. Top unit for the year was No. 82 (Brandon) Squadron which eked out a narrow win over No. 176 (Winnipeg) Squadron in the Guthrie competition.

A highlight of the year was the excellent showing made by Manitoba cadet sharpshooters who were on the squad which won the Inter-Services Cadet Shoot at the D.C.R.A. meet in Ottawa. Manitoba was also well represented in flying training and exchange visits, and sent 424 boys to the Abbotsford summer camp.

North-West Ontario

The North-West Ontario Zone meeting was held in Port Arthur, with Andrew Madore in the chair. Although the expansion possibilities in this small area are limited, the committee is considering the establishment of several new units and is aiming for a total cadet strength of 700 in the area.

The zone participated fully in flying training, summer camps and exchange visits, and was also

Mr. G. A. D. Will, Chairman of the Saskatchewan Provincial Committee, presents his Esprit de Corps Trophy to Sqn. Ldr. J. Amos, of Prince Albert. Seated: League President H. L. Garner.





represented at the D.C.R.A. Rifle Shoot. Committee secretary W. James Griffis served as League representative at the D.C.R.A. matches in Ottawa.

Cadet W.O.1 Roy Swanson, of Port Arthur, earned unusual distinction when he was selected as Canada's "ambassador of goodwill" to Sweden, and also succeeded in winning the League's aeronautical engineering scholarship to the University of Toronto.

Ontario

At time of writing this report, the annual meeting of the Ontario Provincial Committee had not been held. We are able to state, however, that Ontario squadrons have completed their most successful year since the end of the war and are looking forward to an even better record in 1952.

The province was the main centre of League special activities during the past summer. Working from a base at R.C.A.F. Station Aylmer, the incoming cadet exchange parties made side-visits to Niagara Falls, Sarnia, North Bay and Algonquin Park. Aylmer was the locale of the first and highly successful Air Cadet Assembly, attended by cadets of no less than 7 countries. Another Ontario highlight was the International Drill Competition held this year at the C.N.E. in Toronto.

Canada's most populous province was, of course, well represented in the League's special projects. Ontario cadets flocked to the summer camp at Aylmer, 62 lads took flying training, 15 were selected for exchange visits, and League scholarships to the Canadian Services Colleges were won by 6 cadets.

As in other parts of Canada, most established units were operating at full capacity and a number of new squadrons was opened during the year.

Quebec

A very successful meeting of the Quebec Provincial Committee was held in Montreal under the chairmanship of A. Ross Grafton. In reviewing the past year, Mr. Grafton emphasized the leading part played by Quebec in connection with League special activities, such as exchange visits and the International Drill Competition. The Provincial

Committee played host to all visiting cadet parties and gave the lads a wonderful impression of Canada.

Cadet strength in Quebec is moving up at a good rate, with new squadrons in action at Three Rivers and Shawinigan Falls and a definite likelihood of several more units being formed in the near future.

Quebec sent a strong contingent of cadets to the Aylmer summer camp, and selected 7 outstanding lads for exchange visits and 30 boys for flying training courses. The annual competition for the Walsh Trophy and the Illsley Band Trophy was held at Montreal, and the winners were No. 141 (Ottawa Dollard) and No. 4 (Chomedey de Maisonneuve) Squadrons.

At the close of the year Mr. Grafton was succeeded as chairman by Mr. Gustave LeDroit, who is expected to carry on in the alert and progressive manner of his predecessor.

New Brunswick

The New Brunswick meeting, with Mr. Russell Lambert in the chair, featured excellent reports on squadron operation in the province.

New Brunswick units have always been noted for their sound training programmes, and once again they provided outstanding candidates for exchange visits and flying training, as well as for the highly trained precision drill team that represented Canada at the C.N.E. Although it is difficult to single out individual squadrons, particular mention should be made of the achievements of No. 313 (Edmundston) Squadron, which once again copped a number of major awards in the province. No. 161 (Saint John) Squadron also deserves applause for winning the Provincial Committee trophy for all-round squadron proficiency.

In the past year a new squadron was opened in Saint John, and there is now a strong possibility of a second unit in Moncton.

Nova Scotia

The province of Nova Scotia suffered a distinct loss when Chairman H. W. Aslin was transferred to Edmonton, but has been particularly fortunate



Toronto Air Cadets march past Princess Elizabeth and the Duke of Edinburgh in the C.N.E. grounds. ("Globe and Mail" photo.)

in obtaining Mr. F. M. Covert as a replacement. Mr. Covert is continuing to give the Committee vigorous leadership, which is reflected in the healthy condition of the movement in Nova Scotia.

Nova Scotia is second only to Alberta in the matter of expansion. Under the impetus of an all-out enrolment drive, cadet strength throughout the province has swelled to 1600 and will no doubt go even higher as one or two additional squadrons are placed on the books.

Nova Scotia sent a good contingent of cadets to the Greenwood summer camp and provided 5 boys for exchange visits. Seven lads took flying training. The province also played an important part in the International Drill Competition, supplying many of the candidates for the Canadian team.

Prince Edward Island

Great progress has been made by the League in Prince Edward Island, where the interest and co-operation of the R.C.A.F. Association has been a major factor in revitalizing the two squadrons. Provincial chairman is Roy H. Johnston, of Summerside, who heads up an executive committee selected from Association Wings in Summerside and Charlottetown.

With strong civilian support, the two P.E.I. squadrons have made steady gains over the past year. The Summerside squadron, commanded by Flt. Lt. Murray Shanks, now has a strength of almost one hundred cadets and a thoroughly attractive training programme. The Charlottetown

unit has also gone ahead steadily under the leadership of Flying Officer G. B. Rayner, and now has over 60 lads on the nominal roll.

P.E.I.'s prize-winning cadet in 1951 was Warrant Officer Charles Simpson of Summerside, who not only completed his flying scholarship course successfully but also represented the province with distinction on the exchange tour of the United Kingdom.

Newfoundland

Canada's newest province continues to be one of the leaders as far as Air Cadets are concerned. As the curtain dropped on 1951, there were seven active Cadet squadrons in Newfoundland, with a total strength of over 700 cadets. It is expected that a further fifty or sixty boys may be added to the various squadrons by the end of the training year.

One of the happier developments of the past year was the formation of No. 10 St. John's Wing. Under Wing Cdr. Fred Russell, the four St. John's squadrons have worked out a combined training programme which has been most advantageous. Two squadron bands have also united on occasions to form an excellent Wing trumpet band. All St. John's squadrons are presently sponsored by Service clubs and the committees have co-operated in an ideal manner in supervising the Wing.

The Macgillivray Proficiency Trophy went to No. 408 (Caribou) Squadron which also carried off the Morris Memorial Shield for marksmanship.

Newfoundland once again got a full turnout for the R.C.A.F. summer camp at Greenwood, where the cadets compiled an enviable record in sports. Two cadets were selected for exchange visits, 5 took flying courses at the Newfoundland Flying Club, and 10 lads found places on the International Drill Competition team.

At the close of the year, Mr. Darroch Macgillivray, who is now a member of the national executive committee of the League, relinquished the chairmanship of the Newfoundland Provincial Committee. He has been succeeded by another enthusiastic League worker, John F. Ayre, of St. John's.

A.M.E.S. 894: Part 8

The Story of a Mobile Radar Unit in North Africa

By Marshall S. Killen

THE END OF THE STORY

BY THE BEGINNING of August the number of radar stations in the western Mediterranean area had reached more than one hundred and fifty, so that direct control from Algiers was becoming too cumbersome. A new system was therefore brought into force for the maintenance and supervision of the stations. A number of Radar Servicing Sections and, in some cases, Radar Administrative and Servicing Sections, was formed. These latter units were roughly equivalent to Radar Wings in the United Kingdom and were responsible directly to Headquarters for the performance, maintenance, and general well-being of the radar units under them. No. 1 R.S.S. was formed at Djidjelli and No. 2 at Bizerta. All the best mechanics in the radar chain were selected for the R.S.S.'s, so that A.M.E.S. 894 lost Flt. Sgt. Maxim and Cpl. Glading immediately, and only managed to retain Sgt. Valeriotte by the skin of its (or his) teeth. Needless to say, the loss of Maxim and Glading was greatly felt by all members of the unit. Warrant Officer Cox, from A.M.E.S. 893, was in charge of No. 1 R.S.S. until Flt. Lt. Eddy, a Canadian in the R.A.F., arrived to take over command.

At first we tended to resent the R.S.S. parties coming around to inspect us and to tell us what was wrong and how to fix it; but, before many months had gone by, every station had reached the point where it depended upon the R.S.S.'s for almost everything.

It might be noted here, as a matter of interest, that the Commanding and Technical Officers of five of the seven R.A.S.S. and R.S.S. units which were operating in 1944, were Canadians — as also

were five of the eleven radar staff officers at Headquarters in Algiers. In May of the same year, when the British-controlled radar chain in North Africa had been greatly reduced in order to provide units for Italy and elsewhere, Canadian officers were in command of eleven of the fifteen remaining British stations. I quote these figures because so few people in this country even yet seem to realize how large a part Canadians played in the radar operations of the Mediterranean theatre.

Padre Jestice was posted to Italy, via Sicily, at the same time that we lost Flt. Sgt. Maxim and Cpl. Glading. When he left us, he was ill with malaria and had a temperature of 104°. Rather than miss his posting, however, he got one of our drivers to take him up to Tunis in his own car, depending upon forty grains of quinine which I had given him to keep his temperature down until he could get into a hospital. Throughout the months he had been with us, the Padre had held weekly services in the airmen's mess, and they were always well attended — even by our non-churchgoers. I particularly remember one service he held at an isolated D/F Radio Unit located high in the Tunisian mountains one evening in March 1943. Flying Officer Rennie and I had accompanied the Padre, and the remainder of the congregation consisted of three radio men. Small though the audience was, it did not affect the quality of the sermon. All the men of A.M.E.S. 894 thought the world of our Sky Pilot, and there was always a long waiting list for "the Padre's Cook's Tours", as he called his trips.

In August, A.M.E.S. 894 acquired a motor-boat, which we named "Maleesh" — Arabic for "it



Left to right: Flt. Lt. Killen, Sgt. Sangster, Flt. Lt. Pickford. Flt. Sgt. Valeriote is seated on bumper with Sheila, who formerly belonged to an Italian captain.

doesn't matter." The French farmer who owned the boat had no gasoline or paint, so we obtained it on the condition that we were to paint it and thoroughly overhaul the motor. After two weeks' hard work by the M.T. section, the boat was launched; but, since nobody had thought about caulking the seams, it promptly sank. After further days of toil in the hot sun, the boat was made seaworthy, and thereafter it afforded us lots of fun in down-river trips to the sea and in hunting wild ducks. When we got it first, its top speed was around four knots, but in November, when we installed a disused motor from an automobile, we really had a speed-boat to brag about.

A.M.E.S. 8009 and 8010 arrived from Setif on August 9th with their general-purpose vehicles and camp equipment. These two units were to be re-equipped with the latest in mobile GCI/COL radar equipment, which was on the way out from England. Their orders were to make A.M.E.S. 894 their base during the period of reformation and technical training. The technical vehicles and equipment were unloaded at Bone, and for the next month both units trained assiduously with what help we could give them. Ultimately, A.M.E.S. 8010, under the command of Flt. Lt. Adams, went up the east coast of Italy with the 8th Army, while A.M.E.S. 8009, under the command of Flying Officer Johnson, went up the

west coast with the 5th Army. Incidentally, Flt. Lt. Adams was complimented by the Senior Radar Officer of the Command for having the neatest and most efficient station in Italy.

Later in August, Sgt. Valeriote was promoted to Flight Sergeant and Cpl. Stephenson was made a Sergeant. The senior N.C.O.'s of all three units had a celebration on the night the promotions came through, and to judge from the noise and the aftermath of thick heads, the new appointments were well honoured. On the 21st of August, the Zouave guards were withdrawn from A.M.E.S. 894, and we were very pleased when the new guard turned out to be a platoon of the Northumberland Fusiliers. On the same day, the twin-channel R/T tenders were withdrawn, and we were given a single R/T tender which combined the functions of the other two, only on a smaller scale. As an experiment, we put the new tender in line with the technical convoy, just behind the main Diesel vehicle instead of several hundred yards distant, as was the usual practice. Contrary to the forecasts of Headquarters signals pundits, there was no interference between the radio and the radar equipment.

Our first official R.C.A.F. visitors arrived on August 29th. They were Squadron Leader Davidson and a Welfare Officer. Sqn. Ldr. Davidson was the padre from District Headquarters, which had recently been set up by the R.C.A.F. at Tunis. I was delighted to see him, as we had already met at Cranwell back in 1941. From now on, we maintained a close liaison with Canadian Headquarters and in particular with the Y.M.C.A. Auxiliary Services Officer, who was Jack Wadland, from Toronto. I can safely say that there is scarcely an R.C.A.F. man who served in North-West Africa, Malta or Italy, who does not know Jack and who is not indebted to him for some kindness or assistance. I last saw him in Florence in August 1944, when I was with No. 6 R.A.S.S. He was looking for a suitable hotel in the city to use as a rest camp for R.C.A.F. men on leave. It mattered nothing to him that the Germans were still in the other half of the city and that he could not go outside his hotel after dark because he would be sure to be shot either by an



enemy or a partisan patrol. He and an R.C.A.F. sergeant toured Italy with a mobile cinema outfit, and during the spring and summer of 1944 he did a splendid job of providing entertainment for isolated radar units. He even visited the Anzio beachhead at its hottest, and also put on a show on the island of Elba for a small radar unit that was leading a more than usually lonesome existence there.

Early in October, our routine was unpleasantly broken by a rather nasty episode. Flying Officer Jones (from A.M.E.S. 889, a Middle-East radar unit on its way to Algiers and Corsica) arrived and reported that his Crossley transmitter tender, which had been towing a captured Italian diesel trailer, had gone over a 100-foot cliff near Ain Draham and that three of his men had been killed and five injured. He himself was unable to stop long with us, as he had a deadline hour at which to report to Headquarters in Algiers, so we agreed to wait after the injured men and their kits. The dead were buried near Mateur, and the injured, among whom were two Canadians, were taken to the U.S. No. 3 General Hospital at Mateur, where they received excellent treatment. Four of them recovered, but one radar mechanic died the day after the accident. After this disaster, Command issued strict orders that in future only two men could ride in a technical vehicle; but even with these instructions in force, a number of radar men, including three from A.M.E.S. 894, were killed in Italy when Crossley tenders fell over cliffs.

As soon as the cool October days arrived, route marches were organized in order to make up to some extent for the decline of other activity since the invasion of Sicily and Italy. E.N.S.A. shows were put on nightly either in Morris or at Bône and the units round about arranged some very enjoyable dances. Even with all the entertainment thus provided, however, the excitement of the campaign was missing and the men kept asking when we were going to move to Europe to see some more action.

On the night of October 10th, our sentries saw flares to seaward. Shortly afterwards Sector rang up to say that a motor-launch was in difficulties due north of A.M.E.S. 894, and asked us to send

out a party to investigate. When we reached the coast in a Crossley truck, we found that the Cape Rosa launch, which had been on its way to Bône from A.M.E.S. 895, had run out of gasoline on the previous day and had been drifting in heavy seas until it was washed ashore. The ten men on board were safe, but very wet and hungry. Part of the cargo consisted of blankets on the way to the Cleansing Unit: some of these had been made into ropes to hold the boat down, while others had been made into tents of a sort. Soon we had a fire burning and the castaways were eating happily around it. The next morning the launch was refloated and it arrived at Bône before noon.

During the months of October and November, many Army and R.A.F. units in the Bône area were withdrawn and moved over to Italy, Corsica, and Sardinia. North Africa had ceased to be involved in enemy activity, although aerial attacks on Allied sea-borne convoys coming through from Gibraltar and bound for Italy and India still continued between Oran and Bougie. The main function of Algeria and Tunisia at this stage of the war was to provide bases for Allied aircraft, to act as rear Headquarters for Allied Armies and Air Forces, and to be a huge supply base for these latter until a sufficient number of ports in Italy had been captured and cleaned up and until the south of France was invaded.

As soon as the Tunisia campaign was finally over, periods of leave were granted to all the men who wished to take advantage of the offer. Some went to Tunis, others to Algiers. Flt. Sgt. Valeriote begged a seat on a Dakota touring southern Italy with the Canadian Army, which at that time was advancing north of Naples.

Early in October, Flying Officer Amory was posted to us as Adjutant. He turned out to be a very eager beaver, and soon made his presence with the unit felt. Through his liaison with the Army, and because he was a champion scrounger, the unit obtained a large Nissen hut for a cinema and theatre, a new kitchen range, new tents for the men, and lots of other things that helped to improve our living conditions. When I say that Flying Officer Amory was a good scrounger, it



means that he was a very good one, for we ourselves were considered well above the average.

By mid-November, A.M.E.S. 894 was all set to spend another winter at Morris — when, for me, the blow fell. A signal arrived, posting me to A.M.E.S. 8005, which had recently arrived at Cap Caxine, near Algiers. My orders were to reform this unit and take it across to Sardinia as soon as possible. On November 25th I handed over my command to Flying Officer Amory, and, after a farewell dinner, said good-bye on the following morning to all the lads with whom I had spent such a happy and never-to-be-forgotten sixteen months.

Soon after my departure the crews of A.M.E.S. 894 and 895 exchanged locations, which meant that the 894 men spent a tough winter on Cape Rosa. In January 1944, I was recalled from Sardinia to No. 1 R.S.S., and two months later was moved to Headquarters Mediterranean Allied Coastal Air Forces, in Algiers. I was still there when, in May, my old crew (now under the command of Flt. Lt. Frank Young) was ordered to leave Cape Rosa and proceed to No. 1 R.S.S. at Alma Marine, near Algiers, for refitting. I had the great pleasure of assisting in this work and in seeing the unit, looking as fit and smart as ever, embark for Italy on a Liberty ship before I flew to Naples on posting to No. 6 R.A.S.S. I reached

Naples well ahead of Flt. Lt. Young and his men, so that I was able to assist them on arrival and start them off across Italy on their way to No. 2 R.S.S., at Bari on the east coast. From Bari, the unit moved up the east coast of Italy behind the 8th Army, and finally became operational at San Benedetto, half-way between Ancona and Pescara.

In December of the same year, when the German Air Force in Italy had practically ceased to exist, nearly fifty British radar units in Italy and North Africa were disbanded. Among them were A.M.E.S. 894 and A.M.E.S. 895. By the beginning of 1945, the men of 894 were either on their way home to England or Canada or had been posted to other units. With a few exceptions, all the R.C.A.F. radar men serving in the Mediterranean area were repatriated to England and sent to Canada during the fall and winter of 1944 and 1945.

* * *

A.M.E.S. 894 is now only a memory, but it is pleasant to know that, more than eight years after the end of the Tunisian campaign, the friendships which were made during the life of the unit have not been allowed to die. Many of our Canadian ex-radar men are inveterate "hams" and members of the Air Force Amateur Radio Service, and they still keep in touch with each other via the amateur bands.

THE END

Modern Warfare

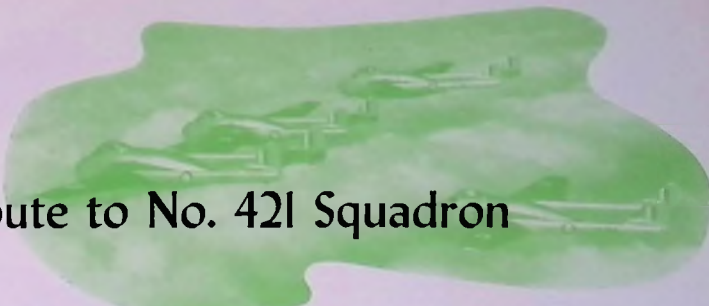
"I have a method of constructing very light and portable bridges, to be used in pursuit of, or in retreat from, the enemy, with others of a stronger sort, proof against fire, and easy to fix or remove.

"I have also most convenient and portable bombs, proper for throwing showers of small missiles, and with the smoke thereof causing great terror to the enemy.

"I can also construct covered wagons, secure and indestructible, which, entering among the enemy, will break the strongest bodies of men; and behind these the infantry will follow in safety and without impediment.

"I can make mortars and firepieces of beautiful and useful shape, entirely different from those in common use."

(Extract from a letter written to the Duke of Milan by Leonardo da Vinci in 1482. Quoted in "The National Guardsman," U.S.A.)



A Tribute to No. 421 Squadron

In January 1950, No. 421 Squadron went to England for operational training with the R.A.F. Flying R.A.F. Vampires, the Squadron spent some ten months based at Odiham, and is now returned to Canada. Some forty members of its personnel have elected to remain in England and serve with No. 410 Squadron, which has recently been sent to its own F-86's from Canada to No. 1 Fighter Wing at North Luffenham.

Published below is a postagram sent by Air Marshal Sir Basil Embry, K.B.E., C.B., D.S.O., D.S.C., A.F.C., A.O.C.-in-C. of the R.A.F.'s Fighter Command, to Air Commodore M. Costello, C.B.E. Air Member Canadian Joint Staff (London), early last November when the first of No. 421 Squadron's personnel were flown back to Canada.

"On No. 421 (R.C.A.F.) Squadron leaving Fighter Command and returning to Canada, I wish to congratulate Wing Commander Davidson and all the members of the Squadron for their excellent work and co-operation while they have been stationed in the U.K.

"No. 421 Squadron has taken a very full and active part in the Station life and amusements, as well as in ceremonial parades, inspections, and Station defence duties, besides carrying out routine day and night individual flying training. The Squadron has been engaged in fourteen air exercises in which the Odiham Wing has operated as a whole. In addition, No. 421 Squadron has flown in fourteen Sector or Group exercises, in which it has operated separately from the Wing. It has carried out five special demonstrations, among which were flying displays for the Canadian C.A.S., the Secretary of State for Air, and a ceremonial display at Digby. On the invitation of the Second Tactical Air Force, a visit was paid to Germany by No. 421 Squadron, and, in the course of normal squadron training, its aircraft have flown over most of the British Isles and over the Continent.

"While this Squadron has operated under my control it has flown nearly four thousand hours, a most noteworthy achievement and one that reflects great credit on the pilots and ground servicing organization. The officer in command of the Squadron has led the Odiham Wing on several occasions and carried out successful Wing interceptions in the annual air exercise 'Pinnacle'. The Squadron, as part of the leading Wing, flew over Buckingham Palace on the occasion of the birthday of His Majesty the King in June this year.

"I am glad to know that quite a number of the members of this Squadron have married while they have been stationed in England and that they will have therefore a personal link with this country, and particularly with Odiham. I am very sorry to say good-bye to No. 421 Squadron, and I wish the Officer Commanding and all its other members good luck and Godspeed in the future."

The Suggestion Box

The personnel whose photographs appear below have received letters of thanks from the Chief of the Air Staff for suggestions that have been officially adopted by the R.C.A.F.

LAC J. A. Grant, of No. 1 Supply Depot, suggested certain alterations to the E307 Stock Record Card that will ensure greater accuracy in balancing cards and considerably expedite the calculation of totals.

Flt. Sgt. F. T. Rootes, of No. 2 Technical Training School, modified existing equipment in such a way as to provide an easily portable battery-charging set suitable for use on summer operations, mobility exercises, etc. It takes not more than a few minutes to set up, weighs only 170 lbs., and has proved itself capable of taking care of a complete Reserve squadron's battery-charging needs throughout two weeks' summer camp.

Cpl. M. C. Marquet, of R.C.A.F. Station Sea Island, designed new equipment to be used in the servicing of hydro-matic propellers. The equipment will both facilitate work on the propellers and afford added protection against the possibility of damage.



LAC J. A. Grant.



Flt. Sgt. F. T. Rootes.



Sgt. N. Palahicky.



Cpl. M. C. Marquet.



Flt. Lt. B. C. Hartman.



Flt. Sgt. C. H. Izard.

Sgt. N. Palahicky, of R.C.A.F. Station Rockcliffe, prepared detailed and comprehensive machinists' reference charts for use in machine shops, tool cribs, workshops, or by trade advancement trainees, etc. Charts give complete information on decimals, fraction sizes, drill sizes, gauge tapers, steel specifications, etc.

Flt. Lt. B. C. Hartman, of the Accident Investigation Branch at A.F.H.Q., devised a lead-gauge for instructional purposes on skeet ranges. By its proper use, the amount of lead for all shooting-stations will be clearly indicated to the novice.

Flt. Sgt. C. H. Izard, of R.C.A.F. Station Gimli, wrote a highly informative article on the use of battery carts, which has appeared in the "Air Materiel Command Monthly News Letter". He also designed a record card for aircraft batteries that has been incorporated in the appropriate engineering order.

A Footnote to the Royal Visit

Our readers will be interested by the following letter which was sent to Air Vice-Marshal C. R. Slemon, C.B., C.B.E., A.O.C. Training Command, immediately after Their Highnesses' visit to R.C.A.F. Station Trenton.

Royal Train,
Canada.

16th October, 1951.

Dear Air Vice-Marshal:

Their Royal Highnesses The Princess Elizabeth and The Duke of Edinburgh were deeply impressed by the splendid parade at Trenton. They have asked me to write to you and send you their congratulations, and ask that you will convey their appreciation to all who took part in this impressive display. Their Royal Highnesses were particularly impressed by the perfect timing of the aerial salute, which was carried out with such precision.

The Princess Elizabeth has also asked me to tell you how proud she is to possess the Keys of the Memorial Gates, and to tell you that she will always treasure this gift.

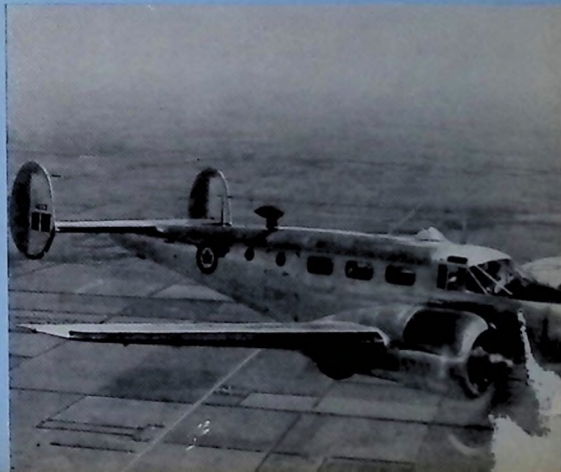
Their Royal Highnesses were very grateful for the refreshment given to them in the Mess, and also for this opportunity to meet and talk to a number of your officers and their ladies.

Yours sincerely,
(Signed) Martin Charteris

Private Secretary to
The Princess Elizabeth.

New Expeditors

One of the R.C.A.F.'s new Expeditors (specially modified Beechcraft) which are to be used for the training of pilots and navigators and for light transport work.





Royalty Sign



The excellent photo shows Their Royal Highnesses Princess Elizabeth and the Duke of Edinburgh signing the R.C.A.F. C-5 which was used throughout the last year.

as the Log

otographs, *then* by
Walker of *A.H.Q.*
Highnesses The
nd The Duke of
he log-book of the
was their personal
eir Canadian tour



ROYAL CANADIAN AIR FORCE

Association



SUCCESSFUL WESTERN TOUR

HIGHLIGHT OF THE YEAR for many Western Wings was the visit of Air Vice-Marshal D. M. Smith, C.B.E., Air Member for Technical Services. Among his party were Air Commodore D. E. MacKell, C.B.E., (ret.), manager of the R.C.A.F. Fund, and L. H. Jenkins, executive assistant to the R.C.A.F.A.'s National President, Air Vice-Marshal A. L. Morfee, C.B., C.B.E., (ret.).

In dealing with procurement and its problems in the R.C.A.F., Air Vice-Marshal Smith gave a fact-packed address. To many Association members it was a revelation of how much the Air Force has changed since their day.

Mr. Jenkins held meetings with each Wing's executive. Where more than one day was spent in a locality, special meetings were called, but otherwise the conference took place after the main function at which Air Vice-Marshal Smith spoke. In the field of projects, Mr. Jenkins dealt with co-operation with the Benevolent Fund, the Air Cadet League, and R.C.A.F. recruiting officers, as well as with the subjects of assistance to the Ground Observer Corps, amenities for the R.C.A.F. overseas, and relations with the Reserve. He discussed the problem of accommodation and Wing organization, and went into the matters of local publicity and the provision to National Headquarters of material covering Wing activities (for "The Roundel" and "Wings At Home"). All Wings had their own particular problems, and these were broached and frankly discussed.

Air Vice-Marshal Smith was unable to fill a commitment at the Lakehead, but Air Vice-Marshal C. R. Slemon, C.B., C.B.E., Air Officer

Commanding Training Command, kindly consented to take his place, and gave an excellent address.

The Air Member for Technical Services first gave his talk to a joint meeting of the Winnipeg Wing and the United Service Institute, at the latter's mess. At Regina it was also a joint meeting. Brandon, Regina, Edmonton, Lethbridge, and Medicine Hat had a dinner prior to the address; Red Deer combined the event with its annual Charter Night; while a luncheon meeting was held at Moose Jaw. Air Vice-Marshal Smith also spoke to Wings at Saskatoon, Vancouver, and Victoria.

En route to the coast, Mr. Jenkins held a Sunday meeting with Regina Group, at which representatives from Saskatoon, Moose Jaw, Yorkton and Regina Wings were present. Among

Left to right: Flying Officer A. B. Finnbogason, Oscar Olsen (Pres. of No. 500 Wing), Air Vice-Marshal D. M. Smith, Col. R. Graham, Major E. Bain, Lt. Col. W. J. Bingham.



other matters, plans were discussed for the reactivation of Moose Jaw Wing and for the formation of additional Wings in the province. On the return journey, a special evening meeting was held at Moose Jaw, at which it was decided to reform Moose Jaw Wing. A special trip was made to Prince Albert, as the result of which a new Wing is now in process of formation there. Mr. Jenkins was accompanied to Prince Albert by Jack Park, president of the Saskatchewan Group; Stanley Malach, president of the Regina Wing; and an officer from the Regina Recruiting Unit. At Moose Jaw, a large representation from Regina (including the entire executive and two officers from the Recruiting Unit) attended, and promised to give Moose Jaw Wing every assistance in its rehabilitation.

The representatives of the Benevolent Fund met with members of the Fund's various local committees.

THE WINNER!

No. 404 (Central Alberta) Wing is the winner of the first prize for the best public relations effort for R.C.A.F.A. Wings. The first contest was open to Wings only and was announced exclusively in "Wings At Home." The second competition is open to all members of the Association, and the winner will be announced in the next issue of "The Roundel."

The prize for the contest closing on February 15th will be for the Wing which shows greatest improvement in its Wing bulletin.

WING NEWS

No. 305, Montreal — Because of difficulty in arranging for extra meeting-nights, headquarters have been changed from No. 401 Auxiliary Squadron's mess to the officers' mess, Duke of Connaught Hussars. A general meeting is now held on the first Wednesday of each month, and a social evening on the third Wednesday. First meeting in the new quarters was highlighted by an address by Capt. Charles Blickstead, the Deputy Co-ordinator of Civil Defence for Montreal.— At time of writing (November 29th), new committees

have been formed as follows: entertainment — Sandy Gray, chairman; welfare — Hank Cochrane and Joan Gower-Ross, co-chairmen; public relations — Larry Ascah, chairman.

No. 404, Kitchener-Waterloo — Air Vice-Marshal A. L. Morfee was guest speaker at a general meeting which was attended by 60 members and guests. Plans were made for the annual Christmas festivities.

No. 426, Brockville — The first winter dance was staged in October at Long Beach Grill.— Jack Langmuir has been over in England to take part in a regatta at Windermere.— At the meeting on November 7th, it came to light that quite a few members were hunting-enthusiasts, and D. C. Bunce, chairman of the publicity committee, got to work trying to promote a venison dinner.— Flt. Lt. Howard Wright, of the Ottawa Recruiting Unit, spoke to a general meeting, giving an outline of the R.C.A.F. today.

No. 109, Dartmouth — After being disappointed with leads for accommodation by civilian, Air Force, and Navy authorities, Bundy Wing has obtained permission to hold meetings in the officers' mess at the Armouries in Dartmouth.— A social evening was held on November 26th.— Because the Wing has encountered little public knowledge about the Association, it has been considering the running of special advertisements to publicize the R.C.A.F.A.

No. 600, Regina — John Probe, Co-ordinator of Civil Defence for Saskatchewan, spoke to a general meeting.— Douglas Clarke, who is leaving the city, was replaced as secretary-treasurer by Miss Rhoda Farthing.— The Wing laid a wreath on the cenotaph during Armistice Day ceremonies.

No. 703, Red Deer — Until sufficient personnel should be posted to R.C.A.F. Station Penhold to support the weekly dances, it was decided to hold a dance every five weeks or so. A pre-Christmas dance has been scheduled.— For the first time, a contingent from the Wing paraded as a separate part in the Canadian Legion Armistice parade.— Red Deer intends to hold meetings in towns in its area to assess possibilities of forming Wings (or, in



No. 412 Wing on Armistice Day parade.

smaller towns, Flights) affiliated with the Red Deer Wing.— A lease has been obtained for two lots of ground at the west end of the Armouries, and it is hoped to erect a recreational centre there for the use of Penhold or transient Air Force personnel.

No. 408, Toronto — The Wing held a successful dance on November 2nd at R.C.A.F. Station Toronto, and although attendance may have been reduced by the heavy snow storm, 275 members turned up. R.C.A.F. members from Hamilton, Newmarket and the Kitchener-Waterloo Wing were among those present. A piper and drummer from No. 400 Auxiliary Squadron participated in the programme, and Frank Ellis was master of ceremonies.— A business meeting was held November 23rd, at which a number of films were shown.

No. 410, Ottawa — Wing Cdr. J. K. F. MacDonald, D.F.C., Officer Commanding No. 426 Transport Squadron, which has been engaged on the Korean airlift, gave a talk on recent operations of the squadron. Many persons, he said, did not seem to realize that No. 426 was still engaged on the Korean run, as well as carrying out domestic transportation duties. Also on the programme were two films, "Fighting Navy in Korea" and "Canada's United Nations Brigade." One of the largest turnouts for some time evidenced the attractiveness of the programme.

No. 425, Goderich — The new executive of the Huron Wing is made up entirely of members from the neighbouring community of Clinton. At the election, held on November 5th at the Sky Harbour Airport in Goderich, the following officers were chosen:

President:	Cameron Proctor
Vice-President:	L. Henderson
Secretary:	Albert Kirby
Treasurer:	R. N. Irwin

Five new members were added to the Wing in one week, and hope was high that membership would show a further increase before the next meeting. Arrangements were being made to have meetings held at R.C.A.F. Station Clinton.

No. 306, Montreal — The Maple Leaf Wing made the best showing of all Montreal Wings when 28 of its members paraded on October 24th, the occasion of the Royal Visit.— Thirty-five members, among them many women, gathered on October 24th for the Wing's first informal meeting. — For the first time, the Wing participated in the Armistice parade in a body.— Gordon McGregor, O.B.E., D.F.C., president of T.C.A., was guest speaker at the gathering on November 14th. Guest speaker at the previous meeting was Capt. Charles Blickstead, chief instructor for the Fire Department and Assistant Co-ordinator for Civil Defence in Montreal.

No. 501, Lakehead — N.A.T.O. air training now being carried out by the R.C.A.F. is to be a large part of Canada's contribution to the strengthening of the Atlantic Treaty Nations. Air Vice-Marshal C. R. Slemon, A.O.C. Training Command, in an address given on October 26th at the Fort William Collegiate Institute, outlined the present organization and work of the R.C.A.F. He told of the tremendous value of the Tactical Air Group in the Korean War and stressed the importance of the closer unity in training now being shown by the Navy, Army, and Air Force. "We must always," he said, "keep before us the vital factor of air superiority in any future conflict." — The Lakehead Wing celebrated Hallowe'en with a dance at the Village Inn.— Lack of a home of its own is a perennial problem of

No. 501. The subject was once again discussed on November 14th at a general monthly meeting. Quarters for the meeting were found in the C.P.O.'s mess, H.M.C.S. "Griffon", Port Arthur. — R.C.A.F. recruiting officers in Fort William have allowed the Wing space in their office to serve as a receiving centre for literature collected for R.C.A.F. squadrons overseas. In Port Arthur, Charlie Wong, a Wing member, has agreed to accept donations for the purpose at his café.

No. 702, Lethbridge — At a general meeting on November 21st, Lethbridge Wing decided to hold a meeting every other Wednesday, with a supper meeting on each alternate Wednesday. — The Wing has begun the procurement of fiction for No. 1 Fighter Wing, North Luffenham, England. — Establishment of an information centre at the Lethbridge Y.M.C.A. for airmen of *Clareholm* Station is contemplated.

No. 411, Chatham, Ont. — With the Air Cadets, the Air Cadet Band, and Branch 431 of the Canadian Legion, Chatham Wing participated in Armistice Day ceremonies. — On November 10th, a stag smoker was held in the new club rooms. — A Bingo was held in the market building on November 28th, and another is projected for December 5th. — The Ladies Auxiliary is planning a number of social evenings, and the Wing itself a Christmas dance. — National President Air Vice-Marshal Morfee attended when the Wing officially opened its new club rooms on November 17th.

No. 804, Vancouver — Since 40 former aircrew members who were prisoners of the enemy in the Second World War assembled at the R.C.A.F. Reserve Centre for the first meeting on October 12, the P.O.W. Wing has arranged for regular meetings and is engaged in a membership drive.

No. 308, St. Hyacinthe — A farewell party was held for Lucien Grenier, vice-president, who has been transferred to Boston. Rolland Gauvin replaced him as first vice-president and Denis Pinard was added to the executive. — The Wing hopes to have an Air Cadet Squadron in operation

by the first of the year, and the staff has already been selected from among Wing members. — Members took part in Armistice Day ceremonies.

No. 251, Edmundston — Roland G. J. Martin has been elected secretary of the Madawaska Wing. He replaces Miss Roberta Richards, who has joined the R.C.A.F.

MARITIME CONVENTION

Delegates from seven of the ten Wings comprising the executive of the Maritime Group attended a conference in Liverpool, N.S., during the week-end of November 10th and 11th. Among those in attendance were the National President and Sqn. Ldr. S. R. Miller, Maritime Co-ordinator of the Ground Observer Corps, both of whom addressed the convention. Miss Hilda Thompson of No. 100 (Bluenose) Wing, Halifax, was appointed secretary *pro-tem*, while A. F. Wigglesworth, vice-president for Nova Scotia, was chairman.

Brief reports were given by all Wing representatives. They indicated that many of the early problems were being overcome. Increased activity in sponsoring the Air Cadet League was in evidence, support was being given to the R.C.A.F. recruiting campaign, and work was being done in connection with hospitals where Service men were patients.

L. Baldock, of No. 412 Wing, lays wreath on Windsor cenotaph.





Air Vice-Marshal G. E. Brookes, C.B., O.B.E., Ontario Group President, with newly-elected president of No. 408 Wing, J. B. S. Fenning. Behind bar are (left) J. Collyer and T. Eberts. (M. G. Barkworth Photo Services.)

The convention decided to recommend to Group that a mimeographed directory of all Wings be produced. A motion was passed that the Nova Scotia and Newfoundland Wings should hold an annual field day, the suggested locale being R.C.A.F. Station Greenwood.

Mr. Wigglesworth was appointed representative to the National Executive, while George Gillespie, of No. 102 (Colchester) Wing, Truro, was nominated as Nova Scotia's vice-president for 1952. The meeting also decided to back G. M. Mulholland, of Summerside, P.E.I., as 1952 president of Maritime Group.

Civil Defence, as well as the Ground Observer Corps, was discussed; and it was reported that No. 107 (Morfee) Wing at Annapolis Royal had organized civil defence in the Valley Town.

A vote of thanks was extended to Bert Aslin, who had been national representative before his posting to Edmonton. An open forum was held on Wing projects and Operation Recruiting.

Following the business sessions, delegates were guests at Mr. Wigglesworth's home. Other functions during the evening were a dinner at the Hillcrest Inn, where Liverpool's Mayor Edgar J. Wright was host. Air Vice-Marshal Morfee told of his trip to Los Angeles to attend the U.S. Air Force Association convention. Later, delegates attended a mess party as guests of the officers of the 133rd Field Battery, R.C.A.

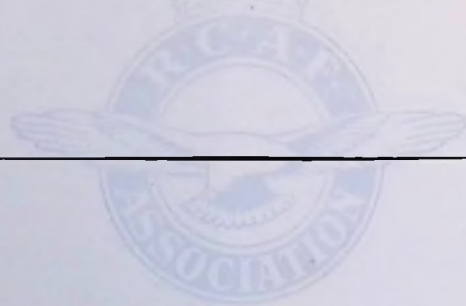
Delegates present were: Mrs. A. Edgar, No. 100 Wing; A. Edgar, No. 101 Wing; George Gillespie, No. 102 Wing; Clary Earle and George Campbell, No. 103 Wing; Herbert Inness, E. Demolitor, and Ross Gardner, No. 104 Wing; and Allan Marsh, No. 108 Wing.

NATURAL HISTORY NOTE

"A Gookle Burd is a poor type of member who changes domiciles regularly without notifying the club of his change of address. These are the Burds who make the postman unhappy, foul up the mailing list generally, and cause the club unnecessary expense in returned mail. Don't be a Gookle Burd."

("Aerographic": No. 412 Wing)

Both National Headquarters and the editor of "The Roundel" wholeheartedly endorse the views expressed by "Aerographic."



Air Superiority

By Flt. Lt. G. K. Finnie, D.F.C.

(Flt. Lt. Finnie, two of whose articles on air power we have published in earlier issues, joined the R.C.A.F. in September, 1941. He did two tours of duty as a gunner with No. 83 Pathfinder Squadron, and after the war spent one year in Germany with the Air Disarmament Wing. A six-month photo interpretation course at Washington led him to the Canadian Joint Air Training Centre at Rivers, where he spent two years as an instructor in photo interpretation. Sent from there to Denver, Col., for an intelligence course, he is now Command Intelligence Officer at Air Transport Command.—EDITOR)

THE REALISTIC APPROACH

THE SECOND WORLD WAR proved conclusively that air superiority is the most vital factor in any war between powerful nations. The ultimate helplessness of Germany and Japan forcibly demonstrated that, for the future, air superiority must be the first objective not only of our air units but of all forces which are being directed towards the common victory. This doctrine is now accepted by most military men.

It is a human failing, however, to pass over as quickly as possible the rough and less spectacular aspect of a problem in order to get at the easier and more attractive side. This applies to military no less than to any other problems. Many articles start off with the now familiar theme that air superiority is the prerequisite to successful air or ground operations, and, having thus briefly set up this condition, pass on to the tactics and strategy to be employed for the remainder of the conflict, the exploitation phase. The long and laborious build-up phase and the decisive phase are both too often neglected.

We would do well to pay closer attention to the problem of how this condition of air superiority is to be attained. In any all-out war in the immediate future we must assume that air superiority will be at least as difficult to obtain as it was against Germany. In that case, it took five years. And further, let it be borne in mind that, unless

the new enemy repeats Germany's mistakes, the air battle of the next war is likely to be even more bitter than that of the last.

Before this present age of rapid technological advancement, it was probably possible to evaluate battles or campaigns in terms of the results achieved. The character of man's weapons changed only very gradually, and the evolution of tactics and strategy was therefore equally slow. The classic examples were studied, and a consideration of the results no doubt led to fairly accurate deductions.

To-day, however, the evaluation of campaigns in terms of results rather than of cause and effect can be disastrous. New weapons and new methods must be properly analyzed. We must look deeper into the picture and learn why and how the results were obtained. Then, knowing both the cause and the effect, we may be in a better position to evaluate properly our past campaigns (and weapons) and to prepare against the future accordingly.

Nor, finally, must it be forgotten that in the past two World Wars, we have been able, eventually, to smother our opponents with men and equipment. Towards the end of each war, Germany was battling the greater part of the world. In the future, on the other hand, it is entirely possible that we may be faced with a coalition of

powers which will, in terms of both equipment and men, appreciably exceed our own.

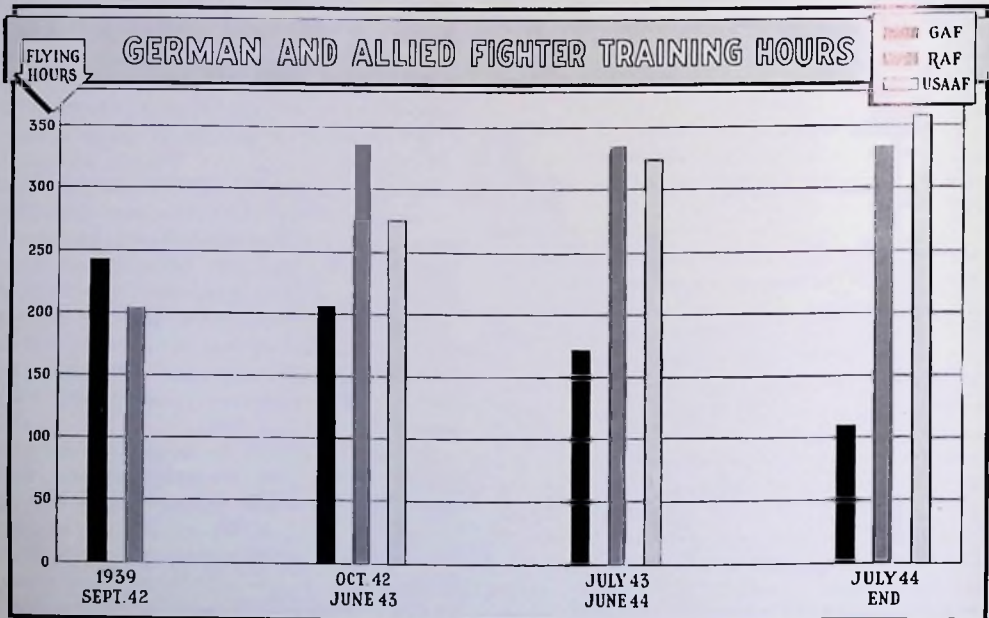
GERMANY

The inability of the Germans to subdue England in the Battle of Britain strengthened her conviction of the indecisiveness of strategic bombing. She failed, at that time, to analyze her campaign fully; she failed to take heed of its lessons. Hence the building of an adequate bomber force was not included in her future plans.

Up until the fall of 1942 (which brought the disaster of Stalingrad) Germany still had no great fears as to the outcome of the war. Her industry was greatly undermobilized, many of her war factories were working only eight hours per day, and very few women were employed in them. It was quite definitely a butter-before-guns war. In 1940-41-42, England alone out-produced Germany in the armament industry. In 1941 the Chief of Staff of the German Air Force opposed an

increase in fighter production, saying, "If I had a production of more than 360 fighters a month, I wouldn't know what to do with them." When Roosevelt announced a target of 50,000 aircraft, and then of 100,000 aircraft, per year, the Germans were not impressed. Germany's was a regulated effort, considered adequate for the task. But the miscalculation was to prove fatal.

With Stalingrad came the realization that a long war lay ahead and far greater efforts were necessary. The need for a much larger air force became evident. However, fortunately for us, Germany's oil situation had always been somewhat precarious. Production in aviation gasoline was never much above consumption, and stocks on hand were never in excess of a few months' supply. Germany could therefore either expand her front line by a reduction in training-hours or give adequate training with a resultant reduction in her proposed future air order of battle. Germany chose to reduce training and concentrate on numbers. This





was probably the greater of the two evils, but either way her back was to the wall. The accompanying chart shows the flying training hours for fighter pilots among the three main air forces. It is obvious from this comparison that German training was bound to have drastic consequences in the decisive phase of the air war which was yet to come.

With regard to the actual composition of Germany's air order of battle, the slackness of the first three years here again proved disastrous. Germany was now off balance in the air war, which was being carried to her in the form of the allied bomber offensive, and she had to concentrate on defensive measures. The following figures show convincingly the lines along which Germany was now forced to build her air arm.

	Bombers (Twin-engined)	Fighters (Single-engined)	Fighters (Twin-engined)
1942	5,371	4,542	671
1943	6,254	9,626	2,112
1944	5,041	25,860	3,006

Germany was thus being thrown on the defensive by an ever-increasing bomber offensive; and, having no bomber force herself, she was unable to retaliate.

THE ALLIES

The concept that the true expression of air power was reflected in a strategic air war directed against the source of power of an enemy, was not easily accepted by the Allied leaders. Airmen fought hard for their conviction, however, and finally this type of aerial warfare was given an official blessing. Gradually the British and Americans built up a bomber force to implement the doctrine; but they did not estimate correctly the requirements for penetration to accomplish this task. They did not build a bomber which could penetrate unescorted by day, or a long-range fighter which could accompany and assist the bombers in carrying out this primary mission. As the accomplishment of the mission demanded that the target be reached with acceptable loss rates, superiority was a complementary but prime requirement. It was a means to an end. The end

was the ability to penetrate enemy defences and knock out the source of his power.

The R.A.F. obtained the ability to penetrate under cover of night (but at a sacrifice of bombing accuracy), the Eighth Air Force by initial restricted penetrations and, early in 1944, by the use of long-range fighters. As the offensive grew and the blows became more destructive, more and more pressure was put on the Luftwaffe in its defensive rôle. This pressure was a more decisive result of the bomber offensive than any particular damage inflicted by the bombing; for, at that time (1943), although our accuracy was improving, it still was not good. Further, our target selection was faulty, as also was the commitment, at times, of our forces. We were not conducting a true strategic air offensive; rather we were piecemealing our forces on targets not always of our own choosing or within our capabilities. But the pressure was there: the Luftwaffe's training period was becoming shorter, and it was becoming a "quantity" air force in lieu of a "quality" air force. By the time escorts came into the picture (February 1944), the decisive phase of the air war had been in progress for ten months.

This added Allied advantage "set up" the Luftwaffe for quick and final defeat within the next few months. After this, the German Air Force had only to be policed. So, despite the large number of enemy aircraft destroyed in the air during 1944, the final defeat of the Luftwaffe was actually the result of years of pressure. Starting gradually, it had become inexorably heavy against a foe who had squandered the vital build-up period, was forced on the defensive, and had neither the industrial capacity nor the strength to resist this pressure indefinitely. He still had numbers, but the quality was gone, and he had become ineffective. The pressure was so heavy that operational tours for Luftwaffe personnel were unlimited. They just had to keep going until something happened.

EFFECT OF OFFENSIVE ON GERMAN TACTICS

So far Allied air superiority has not been traced to any single cause, but rather to basic German flaws and cumulative pressure. The ever-increasing

Allied bomber offensive had to be stopped by the Germans before their home front was rendered impotent — an eventuality which could only result in defeat. The Germans' realization of this fact was reflected in their tactics. After the bomber offensive had gained some intensity, the German Air Force High Command directed that, in daylight engagements, fighters must avoid or evade the escorts in order to go after the bombers. Training and other efforts were directed towards effective means of attacking bombers. Fighters, especially twins, would intercept after the escorting Allied fighters had to turn back. With the advent of long-range Allied fighters, the Germans assigned fighters to escort fighters. These would attempt to draw off the Allied escorts so that the bombers could be attacked.

Armament was also influenced by the need to stop the bomber offensive. The Germans kept increasing the calibre of their weapons so as to be more effective against the bombers. This, of course, reduced their effectiveness against opposing fighters.

Thus it appears obvious that both the strategy and tactics of the Luftwaffe were directed to stopping the decisive weapon of the Allies — the bomber — and the effort required to do this eventually proved too great for their structure to support.

By the time the long-range escorts appeared, in February 1944, the average German fighter-pilot was far from adequate to combat the pilots of the Allies. The German turkey-shoot had begun.

THE FUTURE

In the future we cannot hope to gain air superiority by the same methods that were used against Germany. We must also assume that the enemy will not make the mistakes that Germany made. The pressure we were able to apply through the "round-the-clock" saturation bombing of Germany is a thing of the past. The five-million-dollar B'36's represent far too great an investment in terms of manpower, industrial output, etc., for us to repeat the massed attacks of the last war. The pressure must be applied through smaller forces reflecting adequate intelli-

gence and soundly-developed strategy and tactics, equipment, and technology.

The answer to the problem of attaining air superiority — bombs on the right target — emerged from the last war. If we can attain the three main operational requirements of range, penetration, and bombing accuracy, then bombs on the right targets will be the decisive factor in eventually gaining air superiority and victory. They will eventually cause such dislocation of the enemy's sustaining economy that the physical defeat of his forces in the field (including his air units) will follow automatically. It appears to be the consensus of opinion among airmen that, at the present time, we have the ability to penetrate with an acceptable loss rate. General Vandenberg, at the recent MacArthur hearings, stated: "We can to-day lay waste the industrial potential of Russia." Many of our outstanding leaders, such as Winston Churchill and General Omar Bradley, have stated that it is strategic air power and the atom bomb which provide the main deterrent to all-out Russian aggression at the present time. General Vandenberg further stated that "In my opinion, the U.S.A.F. is the single potential that has kept the balance of power in our favour. It is the one thing that has, up to date, kept the Russians from deciding to go to war."

Any battle for control of the air over an enemy's homeland will be long and tough. Sustained operations will be a vital necessity. Let us think back and remember how close we came, during the Battle of Britain, to losing the British Isles as a vital base for the Anglo-American air offensive-to-be, and then how close Britain came to being starved out by the German U-Boats. We can only conclude that we must be prepared in the future for carrying out an air offensive from the source of our own power, here on this continent. There is no guarantee that a single adequate overseas base will remain to us after the commencement of hostilities.

The air war will never be won if we try to out-match the enemy on the ground and pour our resources into such a struggle. The war in the air will tax our efforts to the limit, and there can be no half-effort if it is to be won. The predominance



of effort must be channelled into the air offensive which is to be carried out over the enemy's homeland. Otherwise, like England in 1940, we will find ourselves fighting it in our own skies. The elementary truth of "first things first" must be observed; the build-up of our armies and navies must be curtailed to the degree required to give us victory in the air. Our basic concepts of the general conduct of any future conflict should orientate our total effort, from that of the factory worker right through to that of the fighting man, towards this end.

We were fortunate in the last war in having England as a base from which to carry the offensive to the heart of Germany. The loss of England would have left us without an adequate air force (with respect to range) to carry the air battle to the enemy. This situation existed in the Pacific, and years of fighting were required before air power could be directed against Japan itself. Denied the means of gaining air superiority by directly attacking the enemy's homeland, we would be helpless until the proper air force was built. When the source of the enemy's power intact, bites on the perimeter would not be conclusive. Meanwhile, the enemy would be consolidating his gains, and (even more disastrous) if he had already built an efficient long-range air force, we would immediately be on the defensive.

The air war in Korea to-day points out the lesson that it is fire-power from air to ground that is decisive. Denied the opportunity of attacking

the air fields in Manchuria, where the enemy aircraft are based, or of interdicting the flow of material required to sustain those aircraft in the air, we are reduced to air-to-air conflict as the main method of gaining air superiority. This is inconclusive. We read of fifty or eighty or a hundred jets tangling in combat and only two or three shot down. This could go on forever, and in the meanwhile we have lost air superiority in MIG Alley. The systematic bombing of airfields by B-29's has, however, rendered inoperative the enemy's main airfields and makes any forward base advancement a costly effort.

If we could step up one notch and attack targets in Manchuria, a temporary decision in the air would be possible in that theatre, though this would still be precarious, as the enemy could still feed in reinforcements from an intact home front outside the theatre of war. Only by attacking the real source of power can any decisive battle be fought.

It is imperative that we do some serious thinking about this business of control of the air. Without it we cannot win any future conflict; if the enemy were to obtain it, we might easily lose the war. It is not only an air force matter but one which is vital to all Services and which requires their full co-operation. The only yardstick which can determine the extent of the air effort is the magnitude of the job which has to be done. Only when that job is completed can we start talking about the final land battles.

Don't Forget Your Pine Tree

For landing when it's really milky, with no way of telling if the ground is near or far, snow-wise pilots fly over the landing area and drop some object of known size. The old timers used to carry along a spare pine tree. The object serves as a guide to give the pilot enough depth perception to land safely. This method is especially handy if it is necessary to make an emergency landing on the ice cap. The main thing is not to kid yourself that you can "see the ground" under such conditions.

("Flying Safety": U.S.A.F.)

★ What's the Score?

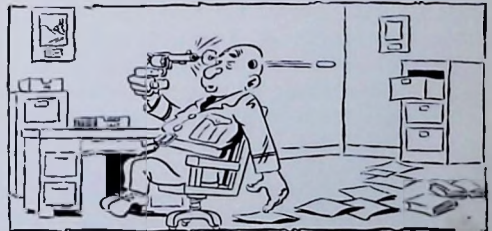
This month's questionnaire was prepared for "The Roundel" by Flt. Lt. B. Dale, of the Directorate of Air Force Security. Since Wing Commander Atherton and his posse are as sudden a bunch of hombres as ever slapped leather in a lightning draw, Service readers are urged to familiarize themselves with the right answers. The members of the Editorial Committee, whose average score was something less than 20, have recently taken to moving about headquarters in pairs. The correct answers appear on page 48.

1. A classified document is one which:
 - (a) Contains information about an enemy.
 - (b) Refers to a classified project.
 - (c) Contains information of a classified nature.
 - (d) Forms a part of a classified file.
2. A document classified "Secret":
 - (a) Must always remain "Secret".
 - (b) May be regraded.
 - (c) May not be upgraded.
 - (d) Must not be downgraded.
3. "Top Secret" information may be released when:
 - (a) The officer is of squadron leader rank or above.
 - (b) An airman is keenly interested in the subject.
 - (c) There is a "need-to-know basis" by an authorized person.
 - (d) A person is cleared.
4. Orders and instructions pertaining to the handling of classified matter are contained in:
 - (a) K.R. (Air) Revised.
 - (b) C.A.P. 524.
 - (c) The National Defence Act, Sect. 13.
 - (d) C.A.P. 425.
5. The classification of a file depends on:
 - (a) The ratio of classified and unclassified documents it contains.
 - (b) The highest classification of any document it contains.
 - (c) The lowest classification of a majority of documents it contains.
 - (d) The individual preference of any officer of air rank.
6. When transmitting documents from one point to another within Canada, two envelopes are required if:
 - (a) Documents are classified "Confidential" or above.
 - (b) The amount of money enclosed is in excess of two hundred dollars.
 - (c) The documents are transmitted by courier.
 - (d) The documents are transmitted by registered mail.
7. If a classified document is recovered after it has been lost for a short time only, you should:
 - (a) Make a D.R.O. entry.
 - (b) Submit a detailed report in writing to the C.O.
 - (c) Consult the S.S.O.
 - (d) Consult the S.M.O. and arrange for a refraction.
8. A document should be classified by:
 - (a) Security personnel.
 - (b) Intelligence personnel.
 - (c) The originator.
 - (d) The typist or stenographer.
9. The combination of a safe which holds classified information is to be changed:
 - (a) Every three months.
 - (b) Every six months.
 - (c) Every nine months.
 - (d) Every twelve months.





10. Safe combinations must also be changed **when:**
- Someone having knowledge of the combination is relieved, transferred, or discharged.
 - Someone having knowledge of the combination becomes subject to amnesia or epilepsy.
 - One or more persons have a knowledge of the combination.
 - Suspicious fingerprints have been found on the dial.
11. A classified registered document is:
- Any document held in a Central Registry.
 - Any document which carries a set of numbers and letters.
 - Any document which is subject to special accounting.
 - Any document which is restricted.
12. A good example of a classified registered document is:
- An R.C.A.F. "Secret" seal.
 - A G-10.
 - A "Secret" document.
 - A document listing new promotions.
13. Quarterly musters refer to:
- Trade remustering.
 - Periodical downgrading of documents.
 - Accounting of a certain type of documents.
 - Secret proceedings.
14. A classified document may be downgraded when:
- Content of subject of document appears in the press.
 - Requested by security police.
 - Proper authority is obtained.
 - Content of subject document is compromised.
15. When a "Top Secret" document is transmitted from one office to another in the same building by an authorized messenger, the preparation should be:
- The same as if it had been sent from Ottawa to Vancouver.
 - To seal it with a fully completed G-10.
 - To gum-seal it only.
 - To seal it in one envelope.
16. Security is the responsibility of:
- Every officer and airman.
 - Some officers but no airmen.
 - Senior N.C.O.'s.
 - The security service only.
17. A printed form which in its completed state is to be classified "Secret," should be marked:
- Secret.
 - Restricted (when incomplete).
 - Restricted and Secret.
 - Secret (when filled in).
18. The publication containing security regulations is for the use of:
- The adjutant only.
 - Every officer and airman on a Station.
 - The Education Officer.
 - Those handling classified documents only.
19. **Not** used in demanding, issuing, and recording classified registered documents is the document known as:
- J-24.
 - J-25.
 - J-32.
 - G-11.
20. If your score in this questionnaire is less than 20, you should:
- Shoot yourself.
 - Give yourself up to the R.C.M.P.
 - Learn by heart the Criminal Code of Canada.
 - Study "Security of Official Documents, Information, and Material".



Happy Warrior

The Career of General of the Air Force H. H. Arnold, U.S.A.F.

A Review Article by Captain Donald M. Vince, General Staff, Army Headquarters, Ottawa.

IT IS DIFFICULT for the mind to grasp the amazing leaps the world has made in the conquest of the air. An immense gap seems to separate the flimsy fabric kites of Blériot and the Wright Brothers from the jets and flying wings of to-day. Then suddenly one realizes that this entire period can be spanned by the life of a single man. Fortunately, one such man, General of the Air Force H. H. Arnold, survived the dangers of the air (and the no less fatal strains of high office) long enough to write his story. In *Global Mission** he gives a coherent and intensely interesting account of his career in the Air Service of the United States Army from the time when, as a 2nd Lieutenant of Infantry, he transferred to it in April 1911, to the time he resigned from it in March 1946, as General of the Air Force and Chief of the Air Staff.

Arnold's reminiscences of the first years of the United States Army Air Corps (U.S.A.A.C.) are both comprehensive and fascinating. He volunteered because he was restless, wanted excitement and/or promotion, and because his Commanding Officer told him: "Young man, I know of no better way for a person to commit suicide."** Arnold writes: "It was a challenge." It was the first of many such that he accepted, to the benefit of both the Air Corps and himself.

In the Spring of 1911, when this handsome young officer took the train to Dayton, Ohio, where the Wright Brothers had their field and

factory, his testy colonel's remark was merely a statement of simple fact. Arnold relates:

"Every morning a man would arrive in a wagon, coming along the old Springfield Turnpike. He'd hitch his horses alongside the fence around the cow pasture and sit there and wait in the wagon until noon and then he'd get out, untie his horses, turn them around, and, slowly shading his head, solemnly drive back to Dayton. The man was a local undertaker." But local undertakers got far too much trade from the air. Almost all of Arnold's friends and fellow-pilots of that time are now dead. Many of them were killed in the risky years before 1920; the rest died in crashes since. It would be salutary if those who criticize the high ranks and low age of Air Force officers would investigate the other face of the coin: the cruel number of those who died on the ladder.

Arnold's tales of how he learned to fly and of the machines of those days have an antique charm which has now vanished from the air: ". . . the only instrument used on airplanes when I began to fly was a piece of string tied to the front crossbar on the skids. When it stood out directly to the rear, everything was O.K.—the pilot was flying correctly. When it drifted to one side or the other, the plane was in a skid. That piece of string was a wonderful instrument . . ."

The first goggles worn by Army airmen "came as the result of a bug's hitting me in the eye as I was landing my plane. Prior to that time, our custom was simple. We merely turned our caps backward and were all dressed to sit on the lower wing and start flying . . . The possibility of being

**Global Mission*, by General of the Air Force H. H. Arnold. Published by Hutchinson & Co. Ltd., London. \$5.00.

**This quotation and all subsequent quotations are taken from *Global Mission* unless specifically noted otherwise.



General of the Air Force H. H. Arnold. (U.S.A.F. photo).

rammed dead by a bug had not occurred to us before. After that we wore goggles." Then, too, there was the glamour of early flying; the embarrassing thrill of being "pointed out in restaurants as if we were celebrities. We could hear people behind us say: 'There they are! They're the ones!'"

Arnold was a pioneer in the development of those military aeronautical techniques which began before the First World War with ground reconnaissance, photography, and the carrying of mail and messages. These nascent stirrings were enormously stimulated in 1917 when the United States made its entry into that war. For Arnold the war was a period of great frustration and even greater activity. He never realized his ambition "to take an air outfit to France." Like other old warriors, he records sadly: "it remains a disappointment to this day." As recompense for this, he did get other experience which proved invaluable when, twenty-nine years later, between 1936 and 1946, he was at the zenith of his personal powers and professional responsibility. In 1917 he

promptly became a full, though temporary, colonel (the youngest in the U.S. Army), the second ranking officer in the War Department Air Division, and the senior officer in Washington with wings. All this was almost too much for his essentially modest nature. On his way to and from his office Arnold slunk along back alleys and side lanes. Washington was not accustomed to thirty-year-old colonels in those days.

For Arnold the First World War passed with formative responsibilities. These included the Air Corps "640 Million Dollar Bill" of 1917 which, by the peculiarities of American Military Administration, "has never, up to the date of this writing, had the approval of the General Staff of the Army." He saw the Air Corps expand to 20,000 officers and 149,000 men, the "failure of aircraft production in 1917-18," the development of the "Bug" (American predecessor of Hitler's buzz-bomb), and much else of future worth. Then, after a belated arrival in France just before the Armistice, Arnold settled back to the frustrating life of a Regular officer in a peace-time, penny-pinching Army, and to his permanent rank of Captain.

The notorious Billy Mitchell fought loudly for the ideas of air power, sank his battleships, slipped confidential documents and prepared statements to the Press, confirmed Calvin Coolidge as his enemy, and so came finally to his Court Martial. Arnold quietly commanded the Air Corps in California, and went to the Army Industrial College. He served again in Washington as Chief of the Information Section; promoted Pan-American Airways as the "first counter-measure the United States ever took against Nazi Germany"; attended Mitchell's Court Martial; and was accordingly "exiled" to Fort Riley, Kansas.

United States inter-Service difficulties light up in Arnold's recollections of this trip west:

"... my wife getting the children around her and telling them this was going to be rough. They'd have to take it. There were bound to be fights with those Fort Riley Cavalry children who would be laying for them. Hank, who was nine then, wasn't impressed. 'Will they be tougher than those Navy kids in Washington?' he asked"

At Fort Riley, Arnold, ever the salesman of air power, obtained his Commanding General's permission to indoctrinate all those officers who came to that post to take equitation courses. He also took a commanding hand in flying the Presidential mail to Calvin Coolidge. When that taciturn individual took a holiday in the Black Hills of South Dakota: "We quickly learned one thing, and that was that President Coolidge was adamant about his mail. It made no difference whether it was raining between Washington and Chicago . . . or whether there was fog . . . between Chicago and North Platte, President Coolidge demanded his mail! He had to have his mail!" With customary agility, Arnold saw to it that "things were arranged so that every Tuesday and Thursday there was always a package of mail on President Coolidge's desk . . . regardless of what the weather conditions were, or whether our planes got through or not."

During the "Golden Age of Aviation" Arnold continued his military education; went to the Command and General Staff School at Fort Leavenworth against the Commandant's wishes (but left with his blessings), commanded other Air Corps units, and made of Lake Muroc the beginning of that famous bombing and gunnery school. He helped to fly the United States Mail — a political gesture that cost the Air Corps many lives and many lines of bad publicity. He flew with a bomber group to Alaska; met Will Rogers; and finally, in January 1936, moved back to Washington as Assistant Chief of the Air Corps.

At that time he didn't know how final this move was:

"If I had realized then that I would stay in Washington for ten consecutive years, right up to my retirement, I would almost have dared to turn my overloaded car about and drive straight back to California. As it turned out, it would be my lot to have a Command again — one of the biggest commands in history. But even at the peak of that, I was still always to remain partially a staff officer. The Chief of the Air Corps was to be also Deputy Chief of Staff of the United States Army. The Commanding General of the Army Air Forces would still be a harassed member of such undreamed-of, high-powered Staffs as the

Joint and the Combined Chiefs of Staff. There would be many thrills, but the pure exuberance of that command on the Coast was never to come back."

Henceforth, the central, the dominating, themes of Arnold's life were the expansion of the U.S.A.A.C. and the leap which the American and British Air Forces made from the tactical to the strategic plane of air power. Symbolically, the first of the U.S.A.A.C.'s four-engined bombers, two B-17 Flying Fortresses, touched down at Langley Field, Virginia, almost at the same time as the Arnold family drove into Washington. This large day-bomber was to form the wedge of strategic air power and the vortex of the day-bomber *versus* night-bomber controversy. Arnold was the man who fought for the theories of his Corps on precision day-bombing. He fought them through to a successful end. He refused to accept the "technical impossibilities" of long-range fighters; he refused to be daunted by heavy casualties or by carping criticism. He steadfastly, and successfully, objected to the subordination of strategic to

Brig.-Gen. W. Mitchell. (U.S.A.F. photo.)





President Calvin Coolidge. (U.S. National Archives photo).

tactical requirements — an objection not shared by the industry. But the amazing productive capacity and manpower resources of the United States meant that this policy was not attended by the grave results which might have happened had this dichotomy meant a serious reduction in one programme to increase the other. In the U.S.A.A.C., once production began, there was always enough for all and to spare. It was not so in the R.A.F.

In general, the air-power story of 1942-45 is well enough known to need little elaboration. In particular, General Arnold reveals interesting and important details and the large part that he played, personally, in the development and application of air power. It may be that Arnold's brief for the heavy bomber and his case for strategic bombing were over-coloured by excessive optimism and uncritical zeal. It has now been estimated that despite bombing, German war production tripled between the winter of 1941-42 and "D" Day. By the end of 1944, despite the millions of tons of high explosive lavished by the R.A.F. and the

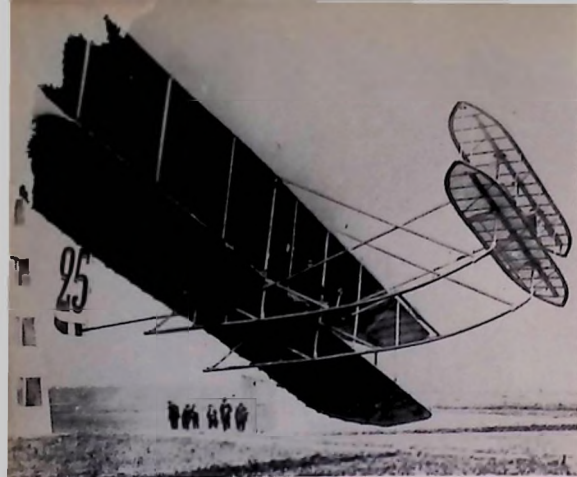
U.S.A.A.F., that same production had declined by only 20%. So, while the line between strategical and tactical here becomes hazy, it leads to the argument that the bomb loads which so delayed the German concentrations in Normandy were better spent than those which destroyed Dresden. The sound middle ground was taken by Marshal of the Royal Air Force Lord Tedder in his Lee Knowles Lectures of 1947:

"An Air Force comprised of fighters alone is not an air force and is not defence; as well have naval ships without guns, or armies without artillery. The fighter and the bomber, the guard and the punch, are complementary. The bomber operations, though unseen, are as vital to the defence of the country as the visible operations of the fighters . . . The only decisive air superiority is that established over the enemy country."

But a zealot, like a good salesman, is ever apt to oversell his product. For Arnold and the Allies, nothing much was lost through this zeal.

Less generally known than the air-power story are Arnold's relations with the President, Harry Hopkins, General Marshall, the Washington "boys," and the Joint and Combined Chiefs of Staff. His comments on his wartime associates, if affected by the calculating charity of a man who knows that others may also write, are sometimes penetrating and valuable.

With Franklin D. Roosevelt, Arnold had considerable contact and occasional conflict. He also had a calculated admiration for him — "one of the best friends the Air Force ever had." Arnold's sense of desolation and uneasiness when he was "unwelcome" at the White House shows how personally and effectively F.D.R. dominated his crew. With the ubiquitous and able Hopkins, Arnold's relations were always excellent. To Hopkins, he pays high tribute for services in the Allied war effort. Arnold admired Mr. Churchill for "his all-inclusive mind and tremendous personality." Lord Beaverbrook ("The Beaver") "struck me then — and I have never changed my opinion of him — as a most capable, far-seeing man, with tremendous executive powers." Marshal of the Royal Air Force Lord Portal draws his tribute as the most brilliant of the British Chief-



Early Wright biplane.

of Staff. For the remainder of the British V.I.P.'s, Arnold has little emphatic praise to bestow. It may be that the overwhelming forcefulness, energy, optimism and ruthlessness, which Arnold himself possessed, and which he found pre-eminently displayed in Churchill and Beaverbrook, were his criteria of greatness.

Arnold draws a sombre picture of Washington's administrative confusions and personal antipathies. It was, to borrow a phrase from *The Economist*, a place of "irresponsibility and indiscretion." On taking office, he made the scarcely relaxing discovery that, as Chief of the Air Corps, he did business *with forty-two different agencies on strictly air matters*. When Mr. Morgenthau, Secretary of the Treasury, suddenly became overall procurement chief, this muddle became even more turgid. There was a Congressional incident: "All hell broke loose." Mr. Morgenthau went to the President with his side of the story. Arnold felt he was about to lose his job. F.D.R. scolded him in front of the heads of the Defence Departments; pointed out "the desirability for everyone to be on his guard in answering questions before congressional committees"; and accused Arnold of not "playing ball." He was taboo at the White House for months.

Arnold's part in the famous conferences between Mr. Churchill and Mr. Roosevelt was, of course, limited by his Air Corps responsibility. However,

his accounts of Casablanca, Cairo, Teheran and Quebec, have a real value to the historian. This is because Arnold followed the admirable, if forbidden, practice of making and (better still) keeping notes. His stories of American Navy-Army-Air Corps rivalry in the Pacific make interesting and instructive reading in the light of subsequent events.

His account ends, appropriately enough, with that final spectacular triumph of strategic air power — the formation of the 20th Air Force of B29's and the atom-bomb attack on Japan, followed by the end of the War. As a General of the Air Force, Arnold retired in 1946, having spanned in his lifetime the development of the air from the crazy crates of 1911 to the jets and B29's of 1945.

Global Mission is principally, and naturally, concerned with the central story of air power. But it also throws light on almost all the Allied personalities and events of the Second World War. In particular, Arnold sheds a lurid beam on the unbelievable obstacles that a Government can throw in the path of an administrator. Arnold's forty-two agencies, the system of "six small-bosses," the minatory interference and intermittent apathy of Congress, the implications of phrases like "the

B-17 Flying Fortress.





Air Corps gravy train" or "the Air Force pie" — all make one search for reasons why the machine operated at all, leaving alone that degree of effectiveness to which it did attain. One reason lies in the breadth of mind, vigour of imagination, and astounding energy and devotion which the top figures displayed. In the haphazard and often inefficient bureaucracy that stewed about in Washington, the only way to get action was "to bull it through." Roosevelt, Hopkins, Marshall and Arnold, were Titans in sheer force of character. They had to be.

Arnold's restless ambition, his energy, elemental

vigour and receptiveness of mind, his loyalty to his friends and his (and their) ideas, his love of the open air, coupled with an engaging personality and a fundamental modesty, these must all have marked him from the day he left West Point (where he was never even a Corporal). He emerged as a most attractive person. If any sailor, soldier or airman of the Second World War deserved the title "Happy Warrior," it was "Hap" Arnold. It is tragic that he did not live long to enjoy his ranch in the Valley of the Sun. At least he was spared to write in his book a personal saga of his contributions to air strategy and air power.

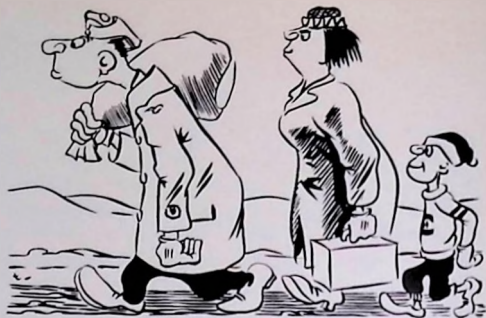
STANDARDIZATION

And because we are credibly given to understand that the often and continual altering and changing of the fashion of armes and armours, some countrys and parts of the Kingdome having armours of one fashion, and some of another, to put many of our subjects to a great and unnecessary charge, and more than need requireth, for the avoiding whereof, our will and pleasure is, and wee doe hereby appoint and command, that hereafter there shall be but one uniform fashion of armours of the said common and trayned bands throughout our said Kingdome of England and

domynion of Wales, when as any of the said armours shall be supplied and new made and that that form and fashion of armour shall be agreeable to the last and modern fashion lately set downe and appoynted to be used by the lords and others of our Council of Warre (the patterns whereof are now and shall remayn in the office of our ordinance from tyme to tyme, which is our pleasure likewise concerning gunnes, pikes, and bandaliers whereof patterns are and shall remayn from time to time in our said office).— *Extract from a commission issued by Charles I in 1631.*

("Canadian Army Journal")

Personnel Movements



August (Amendments): Officers

- S/L R. M. Beatty — 405 (M.R.) Sqn., Greenwood, to 2 (M.) O.T.U., Greenwood.
S/L J. W. Bellis, A.F.C. — 2 (M.) O.T.U., Greenwood, to 404 (M.R.) Sqn., Greenwood.

September (Amendments): Officers

- S/L R. G. Orpen — M.G.H.Q., Halifax, to 1 Grp. H.Q. (Aux.), Montreal.

October: Officers

- W/C I. H. Barclay — T.M.U., Calgary, to A.M.C.H.Q., Ottawa.
S/L C. T. Brighton — T.C.H.Q., Trenton, to R.C.A.F. Stn. Trenton.
S/L R. M. Bubel — A.M.C.H.Q., Ottawa, to R.C.A.F. Stn. North Bay.
A/C W. I. Clements, O.B.E. — A.T.C.H.Q., Lachine, to A.F.H.Q.
G/C H. G. M. Colpitts — S. C., Toronto, to C.J.A.T.C., Rivers.
S/L G. C. Edwards — C.J.S. Washington to R.C.A.F. Stn. North Bay.
S/L J. F. Edwards, D.F.C., D.F.M. — 1 Grp. H.Q. (Aux.), Montreal, to R.C.A.F. Stn. St. Hubert.
W/C H. A. Forbes, D.F.C. — 1 A.N.S., Summerside, to C.N.S., Summerside.
W/C W. M. Foster, D.F.C. — R.C.A.F. Stn. Chatham to R.C.A.F. Stn. North Bay.
S/L W. M. French, D.F.C. — 1 I.F.S., Centralia, to S.F.C., Centralia.
S/L C. F. Grigg — 1 I.F.S., Centralia, to P.R.T.S., Calgary.
S/L L. A. Hall — 410 (F.) Sqn., St. Hubert, to 410 (F.) Sqn., U.K.
W/C F. F. Lambert, D.S.O., D.F.C. — 12 A.D.G.H.Q., Vancouver, to C.J.S., Washington.
G/C H. C. LeDoux, D.F.C. — S.C., Toronto, to A.D.C.H.Q., St. Hubert.
W/C A. J. E. Leveque — T.A.G.H.Q., Edmonton, to A.D.C.H.Q., St. Hubert.
S/L J. G. Mills, D.F.C. — S.C.H.Q., Rockcliffe, to 104 C. Flt., St. Hubert.
S/L G. C. Peck — 1 A.N.S., Summerside, to C.N.S., Summerside.
W/C T. A. Spruston, M.B.E. — A.M.C.H.Q., Ottawa, to 1 F.W.H.Q., U.K.

November: Officers

- S/L A. W. Appleby, D.F.C., B.E.M. — R.U.S. (McGill) to A.F.H.Q.
G/C W. W. Bean, O.B.E. — S.C.H.Q., Rockcliffe, to R.C.A.F. Stn. Centralia.

- S/L R. M. Beer — 102 Marine Sqn., Dartmouth, to M.G.H.Q., Halifax.
A/C F. S. Carpenter, A.F.C. — T.C.H.Q., Trenton, to A.F.H.Q.
S/L J. F. Edwards, D.F.C., D.F.M. — R.C.A.F. Stn. St. Hubert to 430 (F.) Sqn., North Bay.
S/L A. E. Evans, A.F.C. — T.A.G.H.Q., Edmonton, to T.C.H.Q., Trenton.
S/L H. J. Gulen — T.C.H.Q., Trenton, to 1 I.F.S., Trenton.
G/C P. A. Gilchrist, D.F.C. — C.J.A.T.C., Rivers, to A.F.H.Q.
W/C G. R. Knowles, A.F.C. — A.M.C.H.Q., Ottawa, to A.F.H.Q.
S/L D. A. MacLean, D.F.M. — A.M.C.H.Q., Ottawa, to C.J.S. Washington.
G/C W. F. M. Newson, D.S.O., D.F.C. — R.C.A.F. Stn. Centralia to T.C.H.Q., Trenton.
W/C R. O. Shaw — M.G.H.Q., Halifax, to C.J.S. Washington.
S/L E. G. Smith, D.F.C. — 1 Grp. H. Q. (Aux.), Montreal, to A.D.C.H.Q., St. Hubert.
W/C J. M. Sutherland — C.J.S. Washington to A.F.H.Q.
W/C H. C. Vinnicombe — R.C.A.F. Stn. Chatham to C.J.S. Washington.

October: Warrant Officers

- WO2 J. A. Grate — T.A.G.H.Q., Edmonton, to A.D.C.H.Q., St. Hubert.
WO2 J. G. Dickson — 412 (T.) Sqn., Rockcliffe, to R.C.A.F. Stn. North Bay.
WO2 T. J. Glencross — 6 R.D., Trenton, to A.M.C.H.Q., Ottawa.
WO2 J. L. LaChance — 410 (F.) Sqn., St. Hubert, to 410 (F.) Sqn., U.K.
WO2 F. B. Lummis, G.M. — C.J.A.T.C., Rivers, to 430 (F.) Sqn., North Bay.
WO2 J. H. MacDonald — A.M.C.H.Q., Ottawa, to 6 R.D., Trenton.
WO2 C. M. Madsen — 1 R.C.S., Clinton, to T.C.H.Q., Trenton.
WO2 W. J. W. Parker — 2 K.T.S., Ayimer, to R.C.A.F. Stn. Centralia.
WO2 G. P. Poulos — 410 (F.) Sqn., St. Hubert, to 410 (F.) Sqn., U.K.
WO2 W. H. Scott — R.C.A.F. Stn. Greenwood to C.J.S. Washington.

November: Warrant Officers

- WO2 W. Alexander — T.C.H.Q., Trenton to R.C.A.F. Stn. Saskatoon.
WO2 G. E. Charlebois — R.C.A.F. Stn. Goose Bay to 5 S.D., Moncton.
WO1 A. Crew — T.C.H.Q., Trenton, to R.C.A.F. Stn. Whitehorse.



W02 J. A. Daniels — T.C.H.Q., Trenton, to A.M.C.H.Q., Ottawa.
 W02 L. A. Darbey — 11 S.D., Calgary, to 2 S.D., Vancouver.
 W01 H. L. Dole — A.A.S., Trenton, to T.C.H.Q., Trenton.
 W02 J. P. R. Fleming — 102 Marine Sqn., Dartmouth, to M.G.H.Q., Halifax.
 W02 J. T. Gates — T.C.H.Q., Trenton, to 1 F.T.S., Centralia.
 W02 E. C. Gonnason — T.C.H.Q., Trenton, to R.C.A.F. Stn. Snskntoon.
 W01 S. Heap — R.C.A.F. Stn. Claresholm to 2 T.T.S., Camp Borden.
 W02 J. L. Hight — 2 C.M.U., Calgary, to 1 F.W.H.Q., U.K.
 W02 E. H. Jerrett — 102 Marine Sqn., Dartmouth, to M.G.H.Q., Halifax.
 W01 R. H. Kempster — T.C.H.Q., Trenton, to A.A.S., Trenton.
 W02 L. A. Lang — T.C.H.Q., Trenton, to 10 E.U., Camp Borden.

W02 A. E. Martin — T.C.H.Q., Trenton, to R.C.A.F. Stn. Trenton.
 W01 W. J. Mosher — 102 Marine Sqn., Dartmouth, to M.G.H.Q., Halifax.
 W01 C. H. Nauffts — 102 Marine Sqn., Dartmouth, to M.G.H.Q., Halifax.
 W02 J. S. Ogston — 1 A.R.O.S., Clinton, to 1 R.C.S., Clinton.
 W01 H. G. Pratt — A.M.C.H.Q., Ottawa, to 1 S.D., Weston.
 W02 J. R. Probert — R.C.A.F. Stn. Trenton, to C.J.S. Washington.
 W02 J. C. Snider — T.C.H.Q., Trenton, to R.C.A.F. Stn. Centralia.
 W02 R. H. Strong — T.C.H.Q., Trenton, to 2 T.T.S., Camp Borden.
 W02 G. M. Wilson — 11 S.D., Calgary, to R.C.A.F. Stn. Goose Bay.
 W02 W. J. Yeo — 426 (T.) Sqn., Dorval, to 430 (F.) Sqn., North Bay.

KEY TO ABBREVIATIONS

A.A.S.	— Air Armament School	I.F.S.	— Instrument Flying School
A.D.C.H.Q.	— Air Defence Command H.Q.	K.T.S.	— Composite Training School
A.D.G.H.Q.	— Air Defence Group H.Q.	(M.)O.T.U.	— Maritime Operational Trng. Unit
A.M.C.H.Q.	— Air Materiel Command H.Q.	M.G.H.Q.	— Maritime Grp. H.Q.
A.N.S.	— Air Navigation School	M.R.	— Maritime Reconnaissance
A.R.O.S.	— Air Radio Officers' School	P.R.T.S.	— Pilot Refresher Training School
A.T.C.H.Q.	— Air Transport Command H.Q.	R.C.S.	— Radar & Communication School
C.F.	— Communication Flight	R.D.	— Repair Depot
C.J.A.C.	— Canadian Joint Air Training Centre	R.U.S.	— Reserve University Sqn.
C.J.S.	— Canadian Joint Staff	S.C.	— Staff College
C.M.U.	— Construction & Maintenance Unit	S.C.H.Q.	— Security Control H.Q.
C.N.S.	— Central Navigation School	S.D.	— Supply Depot
E.U.	— Examination Unit	S.F.C.	— School of Flying Control
F.S.	— Fighter Sqn.	(T.) Sqn.	— Transport Sqn.
F.I.S.	— Flying Instructors' School	T.A.G.H.Q.	— Tactical Air Grp. H.Q.
F.T.S.	— Flying Training School	T.C.H.Q.	— Training Command H.Q.
F.W.H.Q.	— Fighter Wing H.Q.	T.M.U.	— Technical Maintenance Unit
		T.T.S.	— Technical Training School

WHAT! NO SINKS?

The passenger terminal supervisor of Australian National Airways in Melbourne, Victoria, thought that he had received every inquiry pertaining to air travel, until a would-be passenger asked what he could take as personal luggage. "Everything but the kitchen sink, sir," jocularly replied the supervisor. "That's, funny, that's just what I want to carry," said the passenger — and went on to explain that, as there was a shortage of stainless-steel sinks in his home town, he had flown in to Melbourne on purpose to buy one.

("Flight": U.K.)

"Looking Back"

By Eric Nicol

(Reprinted by courtesy of "Torch": Can.)

DURING THE WAR I offered 25 dollars to any woman willing to spend the night alone in a darkened theatre watching the greatest horror picture since "Dracula," namely, the picture on my identification card. No one ever accepted the challenge, perhaps because I had insisted on sitting with the woman and making sure she had something to scream about.

Anyhow, I know I don't have to tell you readers what an I-card photo is like. Mine, for instance which I like to think was typical, closely resembled a zombie which had reached the station warrant officer stage, a delicate condition hovering between rigor mortis and service police.

My picture, along with everything else I owned, was taken at Manning Depot. (It is interesting to note in passing that the little men who took I-card photos were especially chosen for their hatred of humanity, and were then carefully trained to loathe photography.) When I was handed my I-card with the picture on it, I could



not suppress a morbid curiosity to know whose picture it was.

"Ha, ha, ha, what's that?" I asked.

"Ha, ha, ha, that's you," they replied.

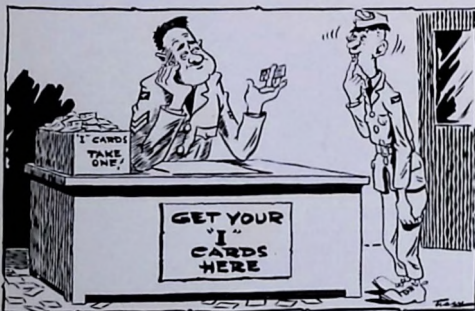
I was deeply moved. The picture revealed for the first time to an entranced world of science that my teeth were divided into thirty-four parts by a crevice through which the night wind whistled and howled while I was asleep, repeating the popular legend that I was haunted.

It also was observed that my hair, on one side of my head only, flaunting my English ancestry in the form of an old country wig, and providing pleasant shade for my ear, which was signalling a left turn at the time the picture was taken.

Like most I-card photos, mine was taken immediately after my first Manning Depot haircut and before I had learned how to keep my collar from sneaking off the back collar button and creeping up my neck with my tie for the purpose of strangling me. I was also just in the throes of becoming deeply aware that my pants were too tight in the seat.

All these factors were reflected in the photo, which glowed with the sad, soulful expression of a water spaniel hungering for a hydrant.

In order to cash a cheque, I found it necessary to show the card to the bank teller for identification. Every time I did so, the teller took one look at the closely cropped head, the opium-glazed eyes, and then reached instinctively under the counter for his gun. Bells rang all over the bank, doors were quickly locked, and the guard yelled:



"Don't move or I'll plug yah!"

Attempting to avoid this rather painful prelude to obtaining funds, I bought victory bonds, only to discover that I still had to go to the bank to pick them up.

I handed the I-card to the teller, a fine example of delayed superannuation, and, as was my wont, dropped flat on my belly to escape his line of fire.

"Who's this?" asked the teller, pointing at my picture.

"That," I said, rising cautiously and dusting myself off, "is me."

He adjusted his spectacles and peered closer at the card.

"What's happened to your wrinkles, bub?" he demanded suspiciously. "You got wrinkles in this picture."

"Those are not wrinkles," I replied quietly. "You're looking at my fingerprint. The picture is above it."



He turned the card around, nodding thoughtfully.

"Says here you got a mole on your left cheek," he cawed, staring at my left cheek.

I could feel several hundred people in line at the next wicket ogling my mole. Under the concentrated gaze, I felt the mole growing bigger and bushier, rippling in the breeze, high as elephant grass, perfect rhino country.

"Can't see it," finally declared the teller. "Guess they musta been making a mountain outta a molehill, hee hee!"

Ignoring his shout of laughter, I picked up my bonds and my I-card, and dragged my mole out of the bank without a word.

From then on, I kept my money in an abandoned sock, and showed the I-card only to service police, who knew how to defend themselves against practically anything.

Letters to the Editor

R.C.A.F. DOCUMENTS REQUIRED

Dear Sir:

This Library has undertaken the assembling and recording of the regimental histories of the Second World War. Your H.Q. library has a copy of our published list of American regimental histories. We have made a good start with the histories of our Allies.

Three Canadian titles have so far eluded us:

"Battle History: 666", published by No. 666 Squadron.

"Flap", published by 39 (R.C.A.F.) Reconnaissance Wing.

A History of No. 5 E.F.T.S. (R.C.A.F.)

Would you be kind enough to run a notice in "The Roundel" of our needs? Such a notice might catch the eye of a reader who has an unwanted copy.

C. E. Dornbusch,
Special Assistant in Government
Documents,
New York Public Library,
Fifth Avenue & 42nd Street,
New York 18, N.Y., U.S.A.

(Will any reader who can help Mr. Dornbusch please write him directly?—Editor)

Answers to "What's the Score?"

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

A BATTLE TO THE FINISH

Dear Sir:

It has come to my attention that your authoritative publication claims the world's record ski-jump to be 351 ft. (See question 16, "What's the Score?", Sept. 1951).

After holding a round-table conference with my top sports-minded associates, and after much diligent research in the 1951 edition of "Information Please!" we have come to a unanimous decision that Dan Netzell, of Sweden, holds the record with a jump of 442.7 ft. The jump was made on 3 March 1950, at Oberstdorf, in Germany. Obviously it will be a battle to the finish as to which publication emerges as our more reliable source of knowledge.

Forgive us for exposing you even further to the thunder of Sgt. Shatterproof.

Cpl. (name undecipherable)

(The battle is already over, and a defeated "Roundel" lies licking its wounds.—Editor)

NO. 402 SQUADRON

Dear Sir:

I have read with interest several of the squadron histories that have appeared in "The Roundel", and I would appreciate if you would let me know whether the history of No. 402 (City of Winnipeg) Fighter Squadron has yet made its appearance. I was attached to that squadron for two years.

R. D. Wilson (R.C.A.F.),
39 Richelieu St.,
Quebec, P.Q.

(The history of No. 402 Squadron was published in our March 1950 issue, of which we are now out of stock. Possibly some fellow-member of the Association can help Mr. Wilson by giving or lending him a copy of the issue.—EDITOR)



"Latest thing, old boy. Swept back."

("Aeronautics". U.K.)



The Hawker P-1067

Although its performance figures and armament details are still on the secret list, many informed critics on both sides of the Atlantic are of the opinion that this aircraft, which is now in regular production for the R.A.F., is probably the fastest and most efficient fighter in the world.

