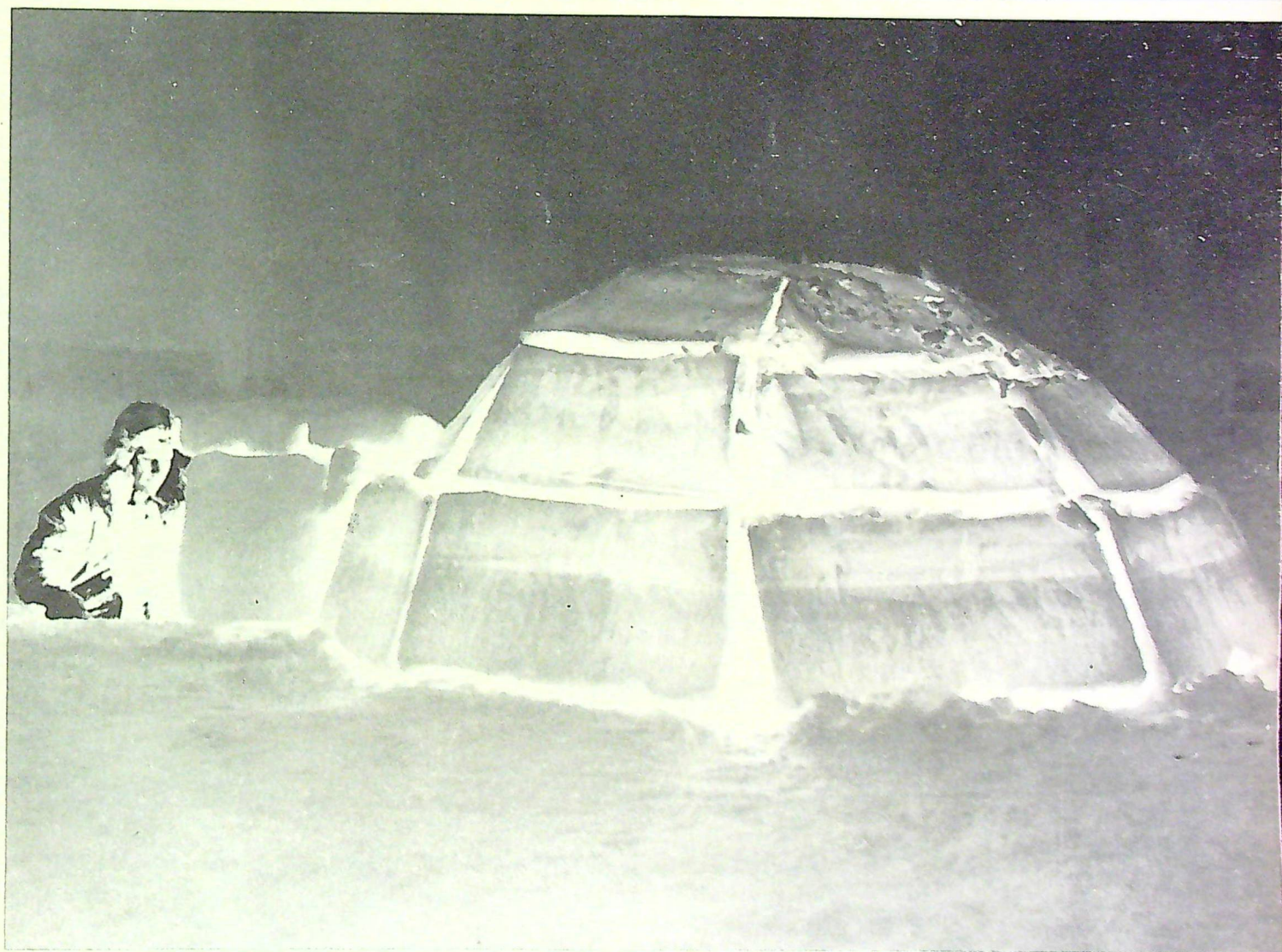


The CROWNDEL

Vol. 6, No. 6
JUNE 1954



ROYAL CANADIAN AIR FORCE



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 Royal Canadian Air Force

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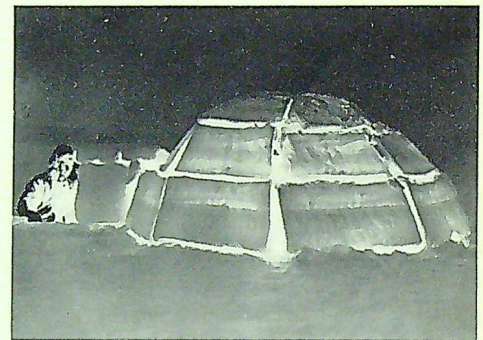
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This Month's Cover



Flying Officer L. I. Sandberg crawls into a one-man igloo during the arctic survival course at Ikkaluk (Fish) Lake, near Cambridge Bay. The photograph was taken at the beginning of April by W.O.2 D. E. Sankey, of the R.C.A.F.'s Directorate of Public Relations. Interior lighting was provided by a gas lamp.

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

A LETTER FROM THE PRIME MINISTER



Ottawa,
March 27, 1954.

The Honourable Brooke Claxton,
Minister of National Defence,
Ottawa.

My dear Colleague:

On the completion of my recent trip around the world, I wish to convey my sincere thanks and appreciation to all those concerned in the Department of National Defence for their efforts in making the tour a success.

The service rendered myself and my party by the officers and crew of the RCAF C-5 was magnificent in every sense of the word and fully in keeping with the highest traditions of the Royal Canadian Air Force.

Not less outstanding were the arrangements for the visits to the Brigades in Germany and Korea and the air bases in Europe and the destroyer squadron in Tokyo. On each occasion the careful planning and smooth carrying out of the programme ensured that these visits were of particular value and interest. Without the able assistance of all three services and in particular the outstanding contribution of the officers and men of Air Transport Command, the tour could not have achieved what it has in developing Canada's relations with the countries visited.

I should be grateful if you would pass on to those concerned my appreciation and thanks for a job well done.

Yours sincerely,

SGT. SHATTERPROOF'S CUP IS FULL

Sir:

This month my pen falters. I have been sitting in my room, seeking inspiration from the busts of Caesar and Napoleon which gaze down from my walls. Often though they have served to guide me through dark hours in the past, now for the first time they fail me. The bold eyes that once conquered Cleopatra's heart are filmed over with despair; the spirit that even Elba could not break is now shaken to the very core. The cup of my bitterness, Sir, is full. Alone I must sit and watch "The Roundel" founder between the Scylla of Service policy and the Charybdis of editorial neglect.

Yet, even in a crisis like this, my heart does not entirely fail me. I seem to hear, echoing down the centuries, the rallying-cry of Sir Shambles le Shatterproof as he was being basted with boiling oil half-way up a scaling-ladder outside the walls of beleaguered Antioch. Though not to be printed here, it nerves me for the task in hand.

Are you, Sir — is the Brass — aware that "The Roundel" is not only papering the walls of Canada's igloos (as you so tactlessly revealed on the February cover), but that it is held in high esteem in the Kremlin as the symbol of democratic decadence? Well may you, Sir — and the Brass — blench at my words! But blenching alone cannot whiten your sepulchres. Ere the tocsin sounds — ere the Canadian Taxpayer shakes off his lethargy and the dreaded cry of "On to Ottawa!" is heard throughout the land, let us turn to "The Roundel" and assess it with honest eyes. Two citations from recent issues will suffice to demonstrate my point.

In February's "What's the Score?" you published a question concerning the fuses on our grenades. I think, Sir, that I shall not be accused of overstatement if I say that, but for the hawk-like vigilance of a few rightfully-suspicious readers, thousands of our trusting ground defence personnel would long since have been reduced to pro-



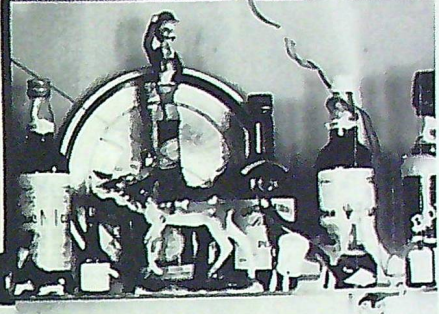
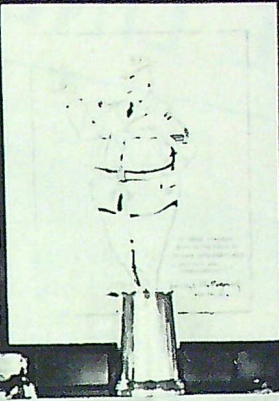
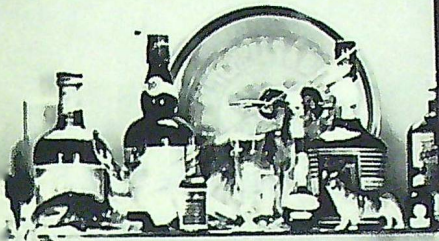
duce. Practical jokes occasionally have their place in life; but a moment's reflection should have convinced you — and the Brass — that to instruct men to hold a four-second grenade for seven seconds is not leadership of the highest calibre.

Again, in March, Mr. Edward Phillips sought elucidation of a knotty point connected with transonic flight. Did he receive a sane answer? No. All he received was an admission that the R.C.A.F. neither knows nor cares if its gallant young pilots go up when they want to go down or down when they should go up. Even if we ignore the frustration likely to be engendered in the minds of our air crew, such a situation cannot fail to impress the taxpayer as economically unsound.

To turn now to more pleasant matters, I have just received from No. 30 Air Materiel Base two photographs of the mug which its senior N.C.O.s were kind enough to present to me while I was overseas last year representing the boys in the

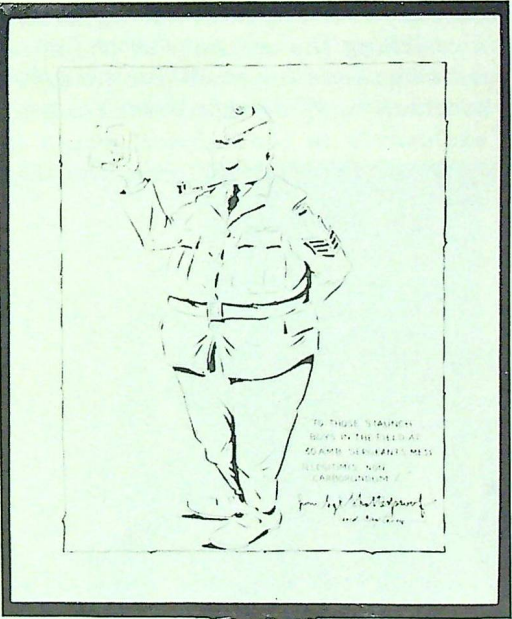
MONTREAL
DORVAL QUE AIRPORT

OTTAWA



WINNIPEG MANITOBA

SASKATOON SASKATCHEWAN



field as Ambassador (without portfolio) at the Coronation of Her Majesty. I was, if you recall, accompanied by Warrant Officer Tracy, whose first hesitant footsteps I was privileged to guide through the troubled fields of international diplomacy.

The inscription on the mug reads:
SERGEANTS' MESS
30 A.M.B., R.C.A.F.
LANGAR, ENGLAND
1953

PRESENTED TO
SGT. SHATTERPROOF
IN APPRECIATION OF A
LOST WEEK-END

Lest you, Sir — or the Brass — should misinterpret the last line of the inscription, I should point out that the word "lost" is used in the sense of "bygone".

Shatterproof

BETWEEN THE LINES

A Résumé of Flying Instructor Training in the R.C.A.F.

By Flying Officer J. A. Emery, D.F.C.

(The brief story that follows grew out of a casual perusal of Central Flying School's "Line Book", which was started in 1940 by Sqn. Ldr. D. M. Edwards, the officer then commanding the unit, in order to record the unofficial history of C.F.S. The writer wishes to state that he is greatly indebted to various serving and former members of the R.C.A.F. for having permitted him to scan their log-books and for their kindness in checking the accuracy of the finished story. Needless to say, in a general sketch such as this, it has been impossible to include the names of more than a few of those who contributed so much to flying instructor training in our Service; nor, without months of work devoted exclusively to the subject, would it be possible to recapture the colourful atmosphere amid which, in days now past, the Service flying instructor learned his art.—EDITOR.)

A WELL-THUMBED album at R.C.A.F. Station Trenton tells the story of the Central Flying School, a unit which grew from a small flight in 1939 to giant proportions, and which (with the three Flying Instructors' Schools formed in 1942) produced the instructors who went on to train the majority of the almost 50,000 pilots who learned to fly in Canada under the British Commonwealth Air Training Plan. This album is known as the "Line Book". Much of the story is told in pictures and clippings, many now yellowing and brittle with age, and much can be read between the lines. It was, indeed, what he read between the lines that aroused the writer's curiosity to the point where he decided to look a little more deeply into

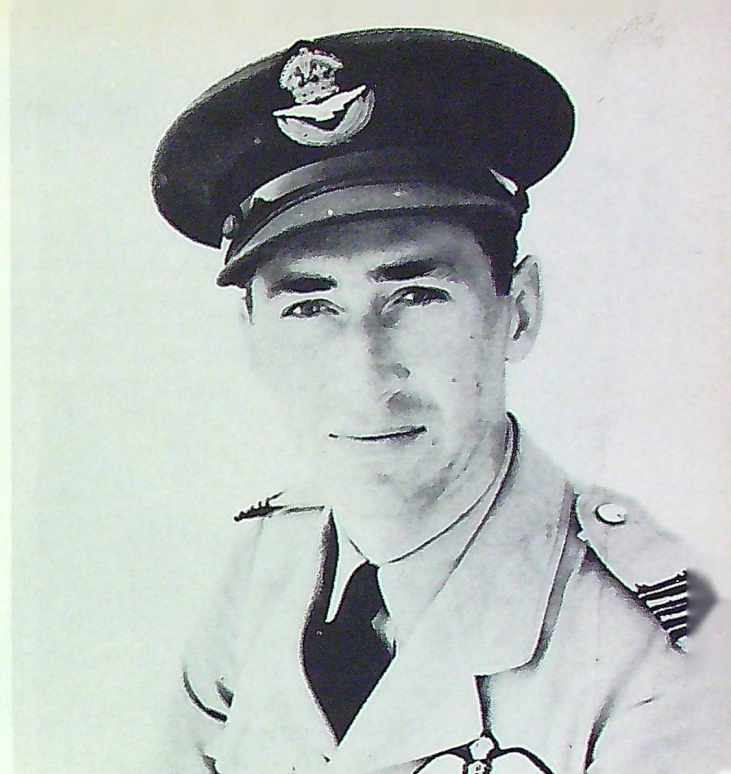


the whole history of flying instructor training in the Service. Before he can begin his narrative, however, a few words are necessary on "how it all began."

* * *

Except for the pioneer pilots, men who would fly have always had some sort of instruction before setting off on their first solo flights. To start with, lessons were sketchy, to say the least; and pilots often left their training schools after being taught little more than how to take off, skid around in a cautious turn, and land. More advanced manoeuvres they learned from what was often a grim teacher — experience. In the early years of the First World War many pilots went into action with a very limited, or with no, understanding of aerobatics, and they depended on experiment and advice from experienced operational pilots to increase their knowledge.

At first, a pupil was simply taught to follow the motions of the instructor until he could duplicate them well enough to go solo. Then followed a few more hours of solo flying and the student would be sent out as a qualified pilot. The job of instructing



Sqn. Ldr. N. D. Petersen

A flying instructors' course at Trenton in 1932. Left to right: Flying Officer D. M. Edwards, Flt. Lt. V. Thompson (instructor), Flying Officers F. M. Gobeil, E. A. McNab, Flt. Lt. W. I. Riddell (instructor), Flying Officers W. A. Jones, R. C. Hawtrey, E. A. McGowan.





Wing Cdr. D. M. Edwards, 1940.

Flt. Lt. John Fauquier in 1940.



was further complicated by the fact that teacher and pupil had no means of communicating with one another except by shouting above the wind and engine noises, which often meant that the instructor would throttle back the engine to reduce noise enough to get his point across. This, one imagines, could have been slightly disconcerting to the student. Pilots were certainly produced by the method, but not without a great many casualties.

Late in 1917, a whole new plan of flying instruction was introduced at Gosport in England. The origination of the scheme has been credited chiefly to Major Robert Smith-Barry, of the Royal Flying Corps, who began by making a study of what actually happened in turns and other manoeuvres, of how the control surfaces came into play, and of the various effects of the controls in different attitudes of the 'plane. (Up until that time, the understanding of such matters had been confined chiefly to aeronautical engineers and designers, and was not considered to be too essential for the average pilot.) He then gathered around him at Gosport a group of hand-picked, experienced pilots, and they set about instructing by

explaining the theory of flight and teaching manoeuvres by stages. These pilots also developed the "patter"—a standardized series of instructions—which, with modifications necessary as aircraft became more complicated, is still used today in the Commonwealth Air Forces as the world-famous C.F.S. system of instruction.

Smith-Barry started his system after he convinced the authorities that a pupil could be taught more in a few weeks with the new technique than he could be taught in months under the old method. He also convinced them that his system would cut down casualties—which it did, and accidents became rare occurrences at Gosport.

Another major contribution from Gosport to the art of flying instruction was the Gosport speaking-tube, a simple but highly effective inter-communication system that allowed two-way talk between the cockpits.

It was indeed an honour for an instructor to become a "passed Gosport" pilot. The only higher distinction was to be kept on as an instructor at the school itself.

* * *

Many Canadian pilots took instructors' courses at Gosport. Among the graduates who were with the Canadian Air Force when the first post-war course of *ab initio* students began their flying training in May 1923, were: Sqn. Ldr. A.A.L. Cuffe (Air Vice-Marshal, retired), Sqn. Ldr. N. R. Anderson (Air Vice-Marshal, deceased), Flt. Lt. R. S. Grandy (Group Capt., O.B.E., retired), and Flt. Lt. G. E. Brookes (Air Vice-Marshal, C.B., O.B.E., retired). The last-mentioned officer, first as flight commander and then as commanding officer of the Flying Training School at Camp Borden, was directly connected with the training of pilots during almost the entire pre-war period of the R.C.A.F.

From the scant records of the first few years, it appears that refresher courses were given at Camp Borden for experienced pilots, who would then be ready to instruct the students coming in for summer flying training. In the R.C.A.F. Weekly Orders of 27 March 1926, notification was made that a flying instructors' refresher course was scheduled for the last three weeks of April. The instructors were Flt. Lt. Brookes, Flt. Lt. Grandy, and Flying Officer J. L. E. A. deNiverville (Air Vice-Marshal, C.B., ret.). Under instruction were Sqn. Ldr. A. B. Shearer (Air Vice-Marshal, deceased), Flt. Lt. C. M. McEwen, M.C., D.F.C. (Air Vice-Marshal, C.B., ret.), Flying Officers H. W. Hewson (Flt. Lt., deceased), D. A. Harding, A.F.C. (Group Capt., O.B.E., ret.), A. H. Hull (Air Cdre., ret.), E. G. Fullerton (Group Capt., A.F.C., ret.), and Pilot Officer E. E. Middleton (Air Vice-Marshal, C.B.E., ret.). The comparatively large number of pilots taking the course was indicative of the increasing number of student pilots in the R.C.A.F. at that time.

The connection with the R.A.F. Central Flying School was not lost. Flying Officer G. K. Trim (Flt. Lt., rel.) went to England to take the course at Upavon early in 1926, and Flt. Lt. Brookes

took C.F.S. training at Wittering in 1927. The policy of sending an R.C.A.F. pilot on this course was continued each year, when possible, and the instructor would bring back any changes in technique being used by the R.A.F.

In 1928, a number of experienced R.A.F. instructors came to Canada to join the R.C.A.F., and after taking refresher courses, they went on to teach pupils. Also in 1928, the Air Force began to give instructors' courses to civilian pilots, who would then go back to instruct at their own flying clubs. By 1928 there were two squadrons of three flights each at Camp Borden, ready to instruct during the summer months, and to do other types of flying when called upon.

When the Air Force budget was drastically reduced in 1932, many of the former R.A.F.

Wing Cdr. G. P. Dunlop.





Wing Cdr. F. C. Carling-Kelly.

instructors had to be released, and certain of the post-war-trained R.C.A.F. pilots were selected for training as instructors. The first course of this period was held early in 1932 at the recently-opened station at Trenton, with Flt. Lt. W. I. Riddell (Wing Cdr., ret.) and Flying Officer V. W. Thompson (Sqn. Ldr., A.F.C., rel.) as instructors. On course were: Flying Officers D. M. Edwards (Group Capt., A.F.C.), E. A. McNab (Group Capt., O.B.E., D.F.C.), F. M. Gobeil (Wing Cdr., A.F.C.), W. A. Jones (Group Capt., deceased), R. C. Hawtrey (Group Capt.), and E. A. McGowan (Group Capt., ret.).

In addition to instructing students, the above-mentioned pilots flew with the demonstration flight of Siskin fighters which had been formed at Camp Borden in 1930. The flight gave exhibitions of formation flying and aerobatics at many Canadian cities, and visited Cleveland, Ohio, for the National Air Races in 1931.

* * *

The training of instructors was continued. Small courses were held from time to time and pilots were still sent to England to take the R.A.F. Central Flying School course. Thus, the approach of the war found the R.C.A.F. with a nucleus of trained instructors. However, there was still no separate school for the teaching of new instructors. This was the situation in the spring of 1939.

It was to allow pilots to attend a school of their own for instructor training that a Flying Instructor Flight (later to become the C.F.S.) was formed at Camp Borden in 1939, with a staff of two pilots, under the command of Flt. Lt. G. P. Dunlop (Group Capt., A.F.C.).

The first students were 10 civilian instructors from various flying clubs where pilots were being trained for the R.C.A.F. Their course lasted approximately six weeks, and included lectures on ground subjects in addition to instruction in aerobatics, instrument flying, and sequence. Three R.C.A.F. pilots comprised the next course.

The first expansion in the organization came in July 1939, when the flight became the Flying Instructors' School, with Flt. Lt. N. D. Petersen as officer commanding and Flt. Lt. Dunlop as chief flying instructor. The staff was increased from two to approximately 12 pilots, and strength was bolstered still more the following month with the arrival of five instructors from the R.A.F. Central Flying School. The number of trainees was increased accordingly and, in mid-August, 14 civilian and 10 R.C.A.F. pilots reported for training.

On the outbreak of the war, the school was still in the process of organizing and was growing rapidly to accommodate the flood of "bush pilots" and commercial pilots who poured in to be qualified as flying instructors. The pupils were many and, for a time, the teachers were few. The first course of 37 commercial pilots arrived early in October. Their training consisted of one month of all phases of flying, a one-month course in instructing, and advanced training and gunnery at Trenton.

The incoming pilots, skilled though they may have been at flying, found that there was more to



take up their time than just the mastering of instructional techniques. Lessons in Air Force routine and many hours on the parade square were included in their training and eventually they went out to form a sound foundation for the flying training schools which were to open.

The transfer of the school to its present home at Trenton was made in January 1940. Operations ceased at Camp Borden on a Saturday and were resumed the next Tuesday at the new location.

Two months later, another change in command came about when Sqn. Ldr. D. M. Edwards (who had taken the instructors' course at Trenton in 1932, and a C.F.S. course in England) took over from Flt. Lt. Petersen, who then became C.F.I., with Flt. Lt. Dunlop as assistant C.F.I. On 17 April the school was re-christened under its present name — the Central Flying School.

Along with a steady increase of personnel, the number of aircraft and types increased too. The original Fleets were augmented by a Boeing 217, Lockheeds, Harvards, and Oxfords. The first Fairey Battle in Canada was flown at C.F.S. early in 1940.

Many well-known Air Force names appear on the school's staff roll at this time. Among them are: Sqn. Ldr. V. H. Patriarche (Group Capt., O.B.E., A.F.C.), Flt. Lt. D. A. R. Bradshaw (Air Cdre., D.F.C.), Flt. Lt. John Fauquier (Air Cdre., D.S.O., D.F.C., rel.), Flt. Lt. M. Lipton (Group Capt., A.F.C.), Flying Officer J. C. Wickett (Wing Cdr., A.F.C.) and Flying Officer F. H. Pearce (Wing Cdr., A.F.C.).

Five courses were under way by February 1940: two for R.C.A.F. pilots, two for commercial pilots and one for civilian elementary instructors.

The latter were enlisted in the Air Force and attended the C.F.S. course, after which they went on leave without pay — in fact, became civilians again — and were posted to the various civilian-operated flying schools across Canada. Their course, which lasted for four weeks, included 50 hours of flying, and such ground subjects as airmanship, theory of flight, psychology of flying instruction, and technical subjects. The other courses lasted for six weeks and consisted of 45 hours of flying, with instruction on advanced

single- and twin-engined aircraft, and night flying.

* * *

In the early war years, the school expanded month by month, trying to keep pace with the seemingly insatiable demands of the B.C.A.T.P. for more and more qualified instructors. By the end of July 1940, when it first reported its strength, the C.F.S. had grown to 386 personnel; six months later it had almost doubled in size. At the end of March 1941 it reached the 800 mark, and it kept on growing until, by the end of July 1941, it numbered over 1,100 personnel — officers, airmen, airwomen, and civilians. It remained at approximately this strength throughout the next year, reaching an all-time peak of 1,217 in June 1942. During most of this period, the school remained under the direction of one or other of the three officers who might be called its founders — Edwards, Dunlop, and Petersen.

Noted in the "Line Book" at this time are matters which had nothing to do with turning out flying instructors. One personnel problem concerned an airman who wanted a transfer. His memo requesting a transfer said, in part: "Having a large range of feminine associates with whom I am constantly in contact, I would like to be transferred where this dangerous environment would not be present. I feel that the life I am living will result in a permanent disability unless some change is made." He asked for a posting overseas or, as an alternative, to Vancouver, where his *fiancée* lived. His request was sent on to higher authorities by the O.C., who suggested that the petition be considered on "passionate rather than compassionate grounds." It was interesting to note that he got his transfer — to the Bombing and Gunnery School at Mossbank, Sask.

There is also a letter from a puzzled resident (whom we shall call "John Smith") of the Trenton area. He said, "Dear Sir: Kindly let me know if a 'plane hit and damaged the roof of a barn on the field formerly used as a landing field on the farm of John Smith, as it has either been hit by a 'plane or lightning. And oblige, John Smith."

Sqn. Ldr. Edwards was promoted to Wing Cdr, in December 1940, and, in March of the following

year, he handed over his command to Sqn. Ldr. Petersen, who for the preceding few months had been at No. 3 Service Flying Training School. At about this time the spring break-up caused a temporary move for the school. As Trenton was unsuitable for flying, the aircraft were flown to Picton and Mountain View, where instruction continued until all the flights were able to move back home early in April.

At the beginning of May 1941, Sqn. Ldr. Dunlop (soon to be promoted to Wing Cdr.), who

in the United Kingdom. Petersen became a Wing Cdr. as C.O. of No. 409 Squadron, and was killed in a flying accident on 2 September 1941.

An indication of the productivity of C.F.S. may be obtained from the fact that by the end of 1941 a total of 1,938 instructors had been graduated. During the next seven months, almost 700 more instructors passed through the school, making a grand total of 2,622 by the end of July 1942, when a reorganization took place. In addition to the training carried out at Trenton, it might be noted



The C.F.S. aerobatic team which flew at the Canadian National Exhibition and the National Air Show in 1953. Left to right: Flt. Lt. D. M. Payne, D.F.C., Flying

Officer A. R. Lehman, D.F.C., Flt. Lt. R. J. Leather, Sqn. Ldr. L. J. Hill, Major M. C. Felts (U.S.A.F. exchange officer), Flt. Lts. G. V. Frostad, R. K. Scott.

had first organized the Flying Instructors' Flight at Camp Borden in 1939, returned to C.F.S. after a brief absence at No. 3 S.F.T.S. and succeeded Petersen in command. Then Sqn. Ldr. Petersen and two of his staff, Sqn. Ldr. P. Y. Davoud (O.B.E., D.S.O., D.F.C., rel.) and Flt. Lt. Lipton, left for overseas — the first officers from C.F.S. to receive such postings. All three went to R.C.A.F. night-fighter squadrons which were being formed

that visiting flights were sent out from the school to tour the schools of the B.C.A.T.P. and keep check on the standard of instruction.

On 1 March 1942, Wing Cdr. F. C. Carling-Kelly (Group Capt., A.F.C.), previously the C.F.I., took over command of the school from Wing Cdr. Dunlop.

* * *

A major change was soon to be made in the organization of C.F.S. In order to meet increased demands for flying instructors for the training schools in Canada, and to provide replacements for pilots who went overseas after a tour of instructional duty, it was decided to form separate Flying Instructors' Schools, leaving to C.F.S. the task of giving post-graduate refresher courses, senior instructor training, and supervision of the operation of the F.I.S.s.

Three Flying Instructors' Schools were formed in 1942. The first to operate was No. 2, at Claresholm, Alta. (later moved to Vulcan and thence to Pearce, Alta.), where instructor training began towards the end of April. No. 1 F.I.S. at Trenton and No. 3 at Arnprior, Ont., were formed in August. No. 3 was disbanded on 28 January 1944, when the B.C.A.T.P. passed its peak development; and Nos. 1 and 2 were closed in January of the following year, when the training plan was rapidly contracting. Between the end of July 1942, and the end of August 1945, No. 1 F.I.S. at Trenton graduated just over 2,000 instructors which, added to the previous output of C.F.S., made a grand total of 4,631 from the outbreak of war.

By the time the three F.I.S.s were in operation, all C.F.S. personnel, with the exception of officers on staff and a few airmen, were attached to the Station Maintenance Wing at Trenton, which resulted in the strength of the school dropping to 25 officers and men. Incidentally, when the reorganization was made, C.F.S. was allotted the numeral 1, and this prefix remained in use until early in 1945.

As the course of the war made it possible to close many of the flying training schools during the last months of 1944, the C.F.S. and F.I.S.s were operating on a reduced basis. It was then decided, as an economy measure, once more to combine the two schools at Trenton, and on 1 February 1945, No. 1 C.F.S. and No. 1 F.I.S. were reorganized as the Central Flying School. It comprised a flying instructors' course, and one or more composite visiting flights. At the end of March 1945, as a major contribution to the B.C.A.T.P., C.F.S. (and No. 1 F.I.S.) had contributed an average of

69 instructors a month from the beginning of September 1939.

During the first post-war months, which were a period of reorganization throughout the whole of the R.C.A.F., the school's activities were at a low ebb. Its strength, which had fallen to 138 by the end of 1945, dropped sharply in the next few months until, by the end of May 1946, it stood at no more than ten. For the greater part of 1946 only a research flight appears to have been active, with a small staff designated to write syllabi for future flying and flying instructor training, prepare a guide for testing, draft standard test cards for use at F.T.S., rewrite C.A.P. 1, and categorize and re-categorize instructors.

The post-war career of Central Flying School began on 1 April 1947, under the R.C.A.F.'s plan for regrouping its units. At that time its function was simply defined as "to train personnel as pilots and instructors in accordance with approved syllabi." This was soon expanded into a detailed and comprehensive programme in keeping with its title of the Air Force's Central Flying School. Its duties, as elaborated in February 1948, were: to train instructors for the R.C.A.F., to keep the technique of flying instruction in the R.C.A.F. at the highest standard, to maintain close liaison with other training schools and conversion units, to prepare or review syllabi for flying and conversion training, to bring pilots' notes and check lists up to date, to pronounce upon the flying technique for all types of Service aircraft, and, by liaison with other Services and civilian sources, to ensure that the R.C.A.F. was kept abreast of developments in the art of flying and flying instruction.

The summer of 1947 marked the beginning of helicopter training in the R.C.A.F. Flt. Lt. P. Clarke was sent to Bridgeport, Conn., for a conversion course, after which he ferried two machines to Trenton and trained two pilots at C.F.S. In January of the next year, another noteworthy occurrence was the arrival of the first Vampires and the introduction of conversion courses on them. Wing Cdr. F. R. Sharp, D.F.C. (then O.C. of C.F.S. and now a Group Captain), was the first pilot to go solo on the first conversion course. Nine courses were completed before the end of 1948,

with instruction being given to pilots on the C.F.S. staff, Auxiliary Squadron instructors, and pilots from A.F.H.Q. and Air Armament School. A Vampire display team was formed during the summer and, under command of Sqn. Ldr. F. O. Bartlett, put on a total of 24 displays in the United States, Quebec, and Ontario, including a daily show at the Canadian National Exhibition in Toronto.

In the summers of 1947, 1948, and 1949, training courses were given in which groups of R.C.N. pilots were included; and the first Instrument Rating Qualifying Course to be conducted by C.F.S. was introduced in September 1949.

A unit badge for the Central Flying School was approved by the King in 1949 and, on 28 June 1950, it was formally presented by Group Capt. Dunlop (then commanding officer of R.C.A.F. Station Trenton) to Sqn. Ldr. G. Sutherland, who had taken over as officer commanding from Wing Cdr. G. A. Folkins, A.F.C. (successor to Wing Cdr. Sharp in 1949). The badge shows the lamp of learning against the background of a maple leaf, and bears the motto "*Hodie docemus ut cras doceant*"—"We teach today that they may teach tomorrow."

The second major reorganization of the Central Flying School came about on 24 February 1951, when No. 1 Flying Instructors' School was formed at Trenton to relieve C.F.S. of the necessity of training instructors. This change was called for by an increasing need for more and more instructors to handle the expanding flying training programme in the R.C.A.F., and to teach the students arriving from the N.A.T.O. countries. C.F.S. was to remain responsible for the other aspects of the flying training programme of the R.C.A.F. as laid down in 1948.

Sqn. Ldr. W. J. Smith, D.F.C., was officer commanding C.F.S. at the time of the second reorganization. His successor was Wing Cdr. F. H. Watkins, D.F.C., who, in turn, was succeeded by Wing Cdr. J. H. Dempster, A.F.C.

* * *

As the actual training of all flying instructors is now done at the Flying Instructors' School (commanded by Wing Cdr. E. J. McLeod), a brief outline of the latter's function may be of interest.

Two main courses are run at the school: one for basic instruction; and the other for advanced. The latter is divided into two parts—one for pilots who will instruct on single-engined aircraft, the other for pilots who will instruct on twin-engined.

Students on the basic course study instructional techniques, navigation, meteorology, principles of flight, radio aids, and engineering, in addition to receiving an intensive flying course during which they are brought up to instrument-rating standards.

The advanced course is really a conversion course on a particular type of aircraft as, normally, the pupil is already a qualified instructor. Students who will go on to instruct at single-engined Advanced Flying Schools do their flying on T-33s, while the twin pilots fly Mitchells and Expeditors. In addition to the above-mentioned courses,

Sqn. Ldr. A. M. Halkett, D.F.M. (chief training standards officer), and Wing Cdr. J. H. Dempster, A.F.C., examine the "Line Book".



refresher courses are also given at F.I.S. for the benefit of previously-qualified instructors who have been off flying for some time.

* * *

C.F.S., at present commanded by Wing Cdr. C. H. Mussells, D.S.O., O.B.E., D.F.C., consists of four flights:

- The Training Standards Flight (concerned with the preparation of syllabi for pilot training courses, the development of lesson plans for air and ground instruction, and the review of pilots' training manuals, orders, and films).
- The Research Flight (responsible for the development of new training techniques and equipment for both ground and air instruction, and the review and amendments of pilots' operating instructions).
- The Air Examination Flight (responsible for reporting on the standard of air instruction, and maintaining uniformity of flying testing by the instructors at the various schools. Teams from this flight visit each flying school for two or three weeks twice a year, during which time they fly with the pupils to see that instructional

standards are being kept up, give categorization tests, and investigate and report on any matters which may affect the standard of the graduate pilot).

- The Ground Examination Flight, whose chief task is the setting of standard examinations to cover academic subjects at F.T.S.s and A.F.S.s.

The types of aircraft now on strength at the school include the Harvard, Expeditor, Mitchell, Lancaster, Mustang, Dakota, and T-33 "Silver Star". During the past summer, an aerial display team from the school put on flying demonstrations at the C.N.E. and the National Air Show in Toronto.

The principal function of the Central Flying School today is, as indicated above, the monitoring of the pilot training programme in the R.C.A.F. Thus, although C.F.S. is a school without actual pupils, there are no pilots being trained in the R.C.A.F. today who do not feel its influence.

The Suggestion Box

★ ★ ★

The Chief of the Air Staff has written letters of thanks to the undermentioned N.C.O.s for original suggestions that have been officially adopted by the R.C.A.F.

Sgt. A. A. Burge, of No. 1 Fighter Wing, designed a new type of wrench for connecting the flexible joint of the heat and vent system during engine installation on Sabre aircraft.

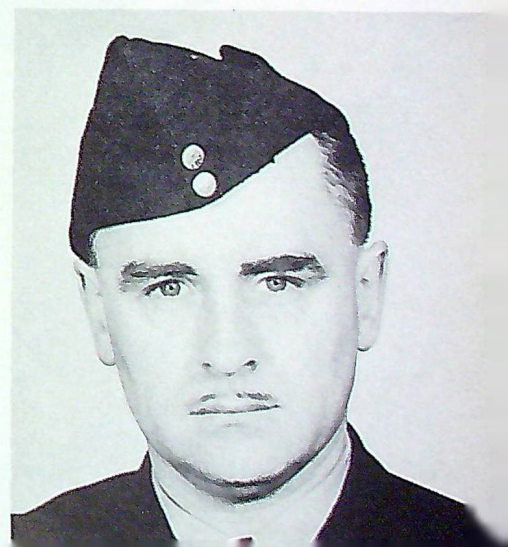
Cpl. L. Muir, of R.C.A.F. Station St. Johns, suggested the insertion of a hard rubber plug in the breech of the Sten machine carbine during certain training exercises. Such a procedure will eliminate the damage or clogging sometimes occasioned by the use of paper or 4" x 2" cleaning material.

Flt. Sgt. J. R. Jenkins, of R.C.A.F. Station Comox, proposed a new and more informative method for the publication of A.F.R.O.s effecting the cancellation of previous A.F.R.O.s.

Sgt. A. A. Burge

Cpl. L. Muir

Flt. Sgt. J. R. Jenkins



Pin-Points in the Past

In the last issue of "The Roundel" we reprinted extracts from the first orders issued by the Canadian Air Force. From late in 1922 the C.A.F. was being reorganized from its non-permanent basis to a permanent basis, a process which was finally completed by the promulgation of King's Regulations and Orders (R.C.A.F.) on 1 April 1924. It is from C.A.F. Weekly Orders published during the above transition period that the following extract has been taken:

CANADIAN AIR FORCE WEEKLY ORDERS
PART 1 Serial No. 21-23
Page 1

ADMINISTRATION March 12th. 1923.
ROYAL CANADIAN AIR FORCE No. 21/23

1. His Majesty the King has been graciously pleased to approve of the "Canadian Air Force" being designated as the "Royal Canadian Air Force."
 2. This last designation will apply to the Permanent Force only, the temporary "Canadian Air Force" will be still known as the "Canadian Air Force."
- NOTE: Although the organization of the Permanent Canadian Air Force is not yet complete, the prefix will apply to that part of the Canadian Air Force which will eventually become the Permanent Canadian Air Force.

A few weeks later, we find:

ROYAL CANADIAN AIR FORCE WEEKLY ORDERS
ADMINISTRATION Page 2.
Serial No. 37-38
April 23rd. 1923.
AK7/2

Motto for the Royal Canadian Air Force No. 38/23
The Motto "Per Ardua Ad Astra" has been adopted by the
Royal Canadian Air Force.
The use of the motto "Sic Itur Ad Astra" will be discontinued forthwith.
H. Edwards,
Flight Lieutenant,
for Assistant Director, G.S. & A.G.
Royal Canadian Air Force

Flt. Lt. H. Edwards died in February 1952 an Air Marshal, C.B. (retired).

Then finally we come to the first Weekly Orders ever promulgated by the Royal Canadian Air Force as such:

ROYAL CANADIAN AIR FORCE

Serial No. 29-30
Page 1
April 1st. 1924.

WEEKLY ORDERS

Issued by Wing Commander W. G. Barker, V.C., D.S.O.,
M.C., A.D.C.

Acting Director, Royal Canadian Air Force.

PART 1 "ADMINISTRATION" No. 29/24

1. ORDER IN COUNCIL
(P.C. 353)

AT THE GOVERNMENT HOUSE AT OTTAWA
Tuesday, the 4th day of March, 1924.

Present:

His Excellency the Governor
General in Council

His Excellency the Governor General in Council, on recommendation of the Minister of National Defence, and under the powers conferred by Section 5 of the Air Board Act, Chapter 11 of the Statutes of 1919, is pleased to approve and doth hereby approve the King's Regulations and Orders for the Royal Canadian Air Force, hereto attached:—

His Excellency in Council on the same recommendation is further pleased to order as follows:—

(i) Those Sections, Regulations, rules and paragraphs of the Air Force Act, the Rules of Procedure, thereunder, and the King's Regulations and Orders for the Royal Air Force, respectively, referred to in the said King's Regulations and Orders for the Royal Canadian Air Force, and all amendments to such sections, regulations, rules and paragraphs, not inconsistent with the said King's Regulations and Orders for the Royal Canadian Air Force, shall have the same force and effect as if they had been regulations made by the Governor General in Council for the government of the Royal Canadian Air Force.

(ii) The annexed # King's Regulations and Orders for the Royal Canadian Air Force shall come into force and effect on the first day of April, 1924, and on their so coming into force, the regulations for the Canadian Air Force, approved by the Governor General in Council on the 2nd September, 1920, shall be cancelled.

(Canada Gazette dated 25-3-24)



Front row (left to right): P.P.O.s J. N. McNeil, S. Merritt, R. Cooil, unidentified, Davis, Strathy, W. Irvine, Weldon Brown, Durnin, W. C. Weaver, unidentified, D. McDonald. Second row (l. to r.): Flt. Lts. J. L. M. White, D.F.C. (deceased), H. W. Hewson (dec.), G. J. Blackmore, G. E. Brookes (Air Vice-Marshal, C.B., O.B.E., retired), G. V. Walsh (Air Vice-Marshal, C.B., C.B.E., ret.), Sqn. Ldr. N. R. Anderson (Air Vice-Marshal, C.B., dec.), Wing Cdr. L. S. Breadner, D.S.C. (Air Chief-Marshal, C.B., dec.), Sqn. Ldr. A. B. Shearer (Air Vice-Marshal, dec.), Flt. Lts. G. E. Wait (Air Vice-Marshal, C.B.E., ret.), R. Grant, F. J. Mawdesley (Group Capt., A.F.C., ret.), R. Collis (Air Cdre., ret.), Flying Officer A. L. Morfee (Air Vice-Marshal, C.B., C.B.E., ret.).

Third row, (l. to r.): Pilot Officer A. P. Campbell (R.A.F.: Group Capt., C.B.E.), Flying Officers G. K. Trim, F. S. Coghill (Wing Cdr., ret.), Pilot Officer F. G. Wait, Flying Officers D. A. Harding, A.F.C. (Group Capt., O.B.E., ret.), F. J. Crossfield (dec.), J. L. E. A. de Niverville (Air Vice-Marshal, C.B., ret.), T. A. Lawrence (Air Vice-Marshal, C.B., ret.), Pilot Officers A. J. Ashton (Air Cdre., ret.), B. G. Carr-Harris (Wing Cdr. dec.), R. M. Carr-Harris, P.P.O.s C. R. Slemon, Glynn, B. F. Johnson (Air Cdre., O.B.E., ret.), C. M. Anderson. Back row (l. to r.): P.P.O.s W. D. Van Vliet (Group Capt., dec.), P. Fair, unidentified, E. J. Durnin, R. E. McBurney (Air Vice-Marshal, C.B.E., ret.), E. R. Suttie, Evans, unidentified, Day, unidentified, McLaughlin, Stevenson, J. Moar, D. Patterson, unidentified.

The photograph which appears in this month's "Pin-Points" shows the staff officers and the first and second courses of Provisional Pilot Officers (P.P.O.s) at Camp Borden in October 1924. It will be noted that the dark blue uniform of the Canadian Air Force was being worn at that time. Twelve of the officers and cadets rose to Air Vice-

Marshal or higher rank. The present Chief of the Air Staff, Air Marshal C. R. Slemon, C.B., C.B.E., is fourth from the right in the third row. The only other officer still serving in the R.C.A.F. is Air Vice-Marshal F. G. Wait, C.B.E., who is fourth from the left in the third row.

ERRATUM
 Page 20 of April issue. "No. 694", in
 third line, should read "No. 604".

Fact and Fiction

Two Review Articles by Wing Commander Hitchens, Air Historian.

HERE are two books* which, though completely different in subject matter, have one thing in common — they both deal with both fact and fiction. Andrew Cunningham's story is a work of fiction that has the ring of authenticity because it is based upon fact. Ewen Montagu's account of Operation "Mincemeat" describes a "fiction" that was accepted as a fact and proved to be one of the most successful hoaxes of the Second World War. Both books make intensely interesting reading.

* * *

"Tumult in the Clouds" is a tale of the war in the air, gives a graphic picture of night-fighting over Western Europe and the Mediterranean as seen by the "back-seat driver", the navigator and radar operator in the Beaufighters and Mosquitoes. Mr. Cunningham knows whereof he writes, for he was himself a night-fighter navigator who completed two tours and ended the war with a D.F.C. and squadron-leader rank. The author points out that, although he has woven into his narrative events of which he had personal knowledge, his book is "essentially a work of fiction" and that "no attempt to portray characters from life is intended". Nevertheless he makes his incidents so vivid and his characters so real that the reader will find it difficult to remember that the story is just "fiction".

The book opens as Dan Fielding, who relates the story, has finished his course at Navigation School and is leaving to become — so he hopes — a navigator in Bomber Command. Much to his disappointment, he is diverted from this objective to become a radar operator on night-fighters. From an Operational Training Unit, where Fielding was crewed up with a pilot whose heart had been set on flying a Spitfire, he is posted to a Beaufighter squadron. The preliminary period of constant training on interception exercises, before becoming operational, is for him an agonizing and frustrating experience, principally because of his pilot's lack of serious interest and patience in radar stalking. A stroke of luck finally teams Fielding with another pilot and he is able to take his part in the unit's night operations. The activities typical of a Beaufighter night-fighter squadron at this period of the war are well described — intruder operations over France and the Low Countries in support of our bombers, the night defence of England against enemy raiders, patrols over the Bay of Biscay to give night cover to convoys en route to North Africa, and the monotony of routine night-fighter patrols when enemy activity against Britain had virtually ceased.

On completion of his first tour, Fielding is posted to an O.T.U. for six months as an instructor. Then, as navigator on a Mosquito, he flies out to Malta to join a night-fighter squadron for the Sicilian campaign in July and August 1943. For a time "trade" is quite good; then it falls off and there is little to do except some long-range convoy escort work. After the fall of Sicily, Fielding goes with a

*Andrew Cunningham: "Tumult in the Clouds". Peter Davies, London; 1953. Pp. 206. Distributed in Canada by the British Book Service (Canada) Ltd. Price \$2.50.
Ewen Montagu: "The man Who Never Was. The Story of Operation Mincemeat". With a foreword by Lord Ismay, G.C.B., C.H., D.S.O. Evans Brothers Limited, London; 1953. Pp. 144; illustrated. Distributed in Canada by the British Book Service (Canada) Ltd. Price \$2.50.

detachment to Catania and then to Sardinia, where the crews carry out some intruder operations over southern France. A move forward takes the squadron to Foggia in Italy, where, in addition to night interception of enemy aircraft, there are more intruder trips into Yugoslavia to attack barges on the Danube. Just before his second tour ends, the young Englishman meets and falls in love with an American nurse.

Returning home in the winter of 1943-44, Fielding becomes navigator officer at a training unit for a short time until an opportunity comes to crew up with an old friend of training-school days for some mysterious special operation. After special training in low-level bombing with split-second timing, the six Mosquito crews selected for the job learn that their mission is to destroy one particular building in Amsterdam where the Gestapo has its headquarters. The attack is successfully carried out at dawn, but over the target Fielding's aircraft is hit by flak and one engine is knocked out. Limping homeward, the Mosquito has almost reached safety when it is attacked by a group of Focke-Wulf fighters. The pilot is killed and Fielding receives a wound in the shoulder, but the aircraft continues to fly straight and level long enough to enable him to bale out into the sea. When he regains consciousness in a hospital his *fiancée* is by his side.

Several times in the narration of his experiences, Fielding (who, like the author of the book, was a teacher in civil life) expresses a longing "for the gift to paint, to try to express this wonder" of night-fighting. Mr. Cunningham has succeeded in doing it very well in words. There are striking passages describing the "sheer joy" of flying on nights "when there was magic in the air", and other equally vivid descriptions of squadron life and scenes in Malta and Gozo, Foggia and Capri.

* * *

The second book, "The Man Who Never Was", deals with an entirely different phase of the war. It is the "fantastic (but true) story" of a brilliant piece of deception by a team of British intelligence officers who created a fictitious character so skill-

fully that the enemy accepted him (and his documents) as authentic. The author, a distinguished lawyer who today holds the office of Judge Advocate of the Fleet, served with the Naval Intelligence Division at the Admiralty throughout the greater part of the war and played the leading part in creating the outstandingly successful fiction of a "man who never was". The book, it should be added, is published with official permission.

In the cemetery at Huelva, Spain, there is a grave bearing a tombstone in memory of Major William Martin of the Royal Marines who died on April 24th, 1943. But the inscription on the stone is a complete fiction. The man whose body lies there was not named William Martin; he was not an officer in the Royal Marines; he did not die in April 1943. Who he was and what he did in real life, and when he actually died, will never be known, except to a very few who are bound to secrecy. Yet "Major Martin" has gained a place in history, not for what he did in life but for a service rendered after death. As a corpse, this "man who never was" accomplished "more than most could achieve by a lifetime of service", for he was the means of carrying through a classic example of a *ruse de guerre*, one that succeeded beyond the wildest dreams of its originators and was responsible for saving the lives of hundreds of British and American Servicemen.

It all began in a small British inter-Service, inter-departmental committee which dealt with security measures for intended operations. After the Allied invasion of North Africa (Operation "Torch") the next objective was Sicily. It was so obvious a move (Churchill remarked "anybody but a damn fool would *know* it is Sicily") that the committee cudgelled their brains to devise some way of putting the enemy "off the scent". Lt.-Cdr. Montagu came up with the idea of using a body to plant false documents in the hands of the Germans, and "The Team" then set out to get official approval and work out the plan down to the most minute detail. As a code-name for this cover-plan for Operation "Husky" (the invasion of Sicily) Montagu selected the gruesome title Operation "Mincemeat."



The first problem was to get a body which would satisfy all the requirements of the scheme and "stand up" under a post mortem (i.e. actual cause of death not incompatible with the ostensible cause). That proved to be quite difficult, but one was finally obtained and put away on ice while all the necessary details were arranged. The Spanish coast near Huelva was selected as the scene of the "plant" because there was an active German agent there and Montagu was sure the Spanish could be relied upon to make available to him any important papers they might find. The papers which the body was to carry required the most meticulous preparation, as they would have to appear genuine to the most critical examiner. The key one was a friendly, chatty letter which General Sir Archibald Nye wrote (personally) to General Alexander, in which the Vice-Chief of the Imperial General Staff indicated that the Allied plan was to launch attacks at the two ends of the Mediterranean (Sardinia and Greece) while using Sicily (Operation "Husky") as "cover target" for the real objectives. Several other official letters were also prepared with equal care and skill.

Official documents alone were not sufficient. It was necessary to "create" William Martin as an officer and a man so as to meet every possible question which the German Intelligence Service might ask to satisfy themselves that he and his papers were genuine. Identification discs and cards, personal letters from his "*fiancée*", his "father" and the family lawyer, bills and theatre tickets stubs, were among the items used as (to quote Pooh-Bah) "corroborative detail, intended to give artistic verisimilitude to an otherwise bald and unconvincing narrative".

Finally everything was ready, and Major Martin, packed in a special container, was loaded on a submarine and started on his journey. In the early morning of 30 April 1943, the body was placed in the sea off the Spanish coast. Later that day it was recovered by a Spanish launch, turned over to the British Vice-Consul in Huelva and buried the next day with full military honours. As soon as this information was passed to London the Admiralty was careful to continue to "play it straight": arrangements were made to have

wreaths placed on the grave from "the family" and "Pam" (the *fiancée*), and a tombstone installed. Later Major Martin's name was published in the casualty lists — one final "corroborative detail".

Meanwhile, with appropriate concern, the Admiralty had demanded that secret papers which Major Martin had been carrying should be returned by the Spanish authorities (they were not with the body when it was turned over to the Vice-Consul for burial). They were finally returned to London later in May, and Lt.-Cdr. Montagu was able to satisfy himself that, despite their seemingly intact seals, the letters had in fact been opened. There was no doubt that Major Martin had played his assigned rôle perfectly. The false information had been planted. All that Montagu and "The Team" could do now was wait to see if Berlin would swallow "Mince meat".

Operation "Husky" went in, as planned, on July 10th, and Montagu soon had evidence that the Germans had at least nibbled at the bait, for the enemy had clearly switched his defensive efforts from the southern side of Sicily (where our forces actually landed) to the western and northern flanks of the island as if to meet a diversionary attack from Sardinia. But just how fully the Germans had been deceived was not learned until enemy records became available for examination after the war. In them there was convincing proof that the German Intelligence Service, the Operational Staffs, the Supreme Command, and even Hitler himself, had swallowed "Mince meat" holus-bolus.

As Montagu had expected, the German Intelligence Service had received from their agent in Huelva copies of the key documents which Major Martin carried. After satisfying themselves that the papers were not a "plant", the G.I.S. studied them carefully in every detail and then passed them on with their "appreciation" to the High Command. Previously the German High Command had, quite naturally, been expecting the next Allied attack to fall on Sicily, but, after receiving the copies of Martin's documents and the intelligence appreciation of them, the Staff Chiefs and the Fuehrer abruptly changed their

plans and prepared to meet landings in the eastern and western Mediterranean. A Panzer division was moved all the way across Europe from France to the Peloponnesus. The Navy laid new minefields off the Greek coast, set up coastal defence batteries and moved flotillas of motor-torpedo-boats from Sicily to Greek bases. In the west the defences of Sardinia were strengthened and also along the north coast of Sicily (to meet an expected diversionary attack from Sardinia). Even when the Allies landed in Sicily, the Germans for a time regarded the operation as a diversion and still

thought that the main assaults were going to come in Greece and Sardinia. As late as July 25th, Hitler sent his outstanding commander, Rommel, to take charge of the forces in Greece!

So operation "Mincemeat" fooled the Spaniards, fooled the German Intelligence Service, fooled the German Operational Staffs and Supreme Command, and fooled Hitler himself. Major Martin had given the lie to the old adage that "dead men tell no tales", and Lt.-Cdr. Montagu received the O.B.E. for his part in creating the "man who never was".

THE CANADIAN AERONAUTICAL INSTITUTE

On February 6th of this year the Canadian Aeronautical Institute came into being. This is a non-profit organization similar to, and associated with, the Engineering Institute of Canada, the Royal Aeronautical Society of the U.K., and the Institute of the Aeronautical Sciences of the U.S.

The primary object of the Institute is to advance the art, science, and engineering, related to aeronautics. Branches have been formed in Ottawa, Toronto, and Montreal, and others will be formed as sufficient members enrol in other parts of Canada. Monthly meetings will be held in these centres, and a quarterly Journal will be issued this fall.

Though the membership is composed largely of aircraft technicians and engineers, various grades of membership are open to anyone interested or engaged in aeronautics. Any R.C.A.F. personnel interested in joining should write for an application form and the by-laws to:

The Canadian Aeronautical Institute,
104A O'Connor Bldg.,
304 Laurier Avenue West,
Ottawa 4, Ontario.

THE PARTY LINE

COMMITTEES

By Air Commodore R. A. Cameron

(Committees have always served as a favourite butt for the wit of the man who likes to think of himself as an aggressive and forceful fellow who gets things done "without all this waffling". None the less, an air force that did not make extensive use of committees would be a sorry sort of an organization in which to work. In this article, Air Cdre. Cameron gives us a clear statement of the need for and the proper functions of all the various types of committee on one or more of which a member of the R.C.A.F. may reasonably expect at some time or other to serve. The author, who is now Director of Organization and Establishments at A.F.H.Q., joined the Service in 1930, was trained as a pilot, and in 1937 went to England to attend the R.A.F. Air Armament School. Returning to Canada, he served in Training Command until the outbreak of war. Appointed to the command of No. 1 Bombing and Gunnery School in the summer of 1940, he was transferred to A.F.H.Q. in 1941 for a two-year period as Director of Armament and Director of Operational Requirements, successively, before going overseas in March 1945 to serve with the 2nd. Tactical Air Force. After receiving the R.A.F. Staff College course in England, he was brought back to Canada and, in March 1947, appointed as Canadian Air Attaché in Prague. In 1950 he became C.O. of R.C.A.F. Station Rockcliffe, after which he attended the National Defence College Course, at Kingston.—EDITOR.)

*On station or staff, by an effort of will,
I always contrive to keep perfectly still,
For it takes but a word of interest or pity,
And wham!—there I am on another Com-
mittee!*

INTRODUCTION

It will be recalled that some wiseacre recently commented that "The bicycle is here to stay." The same remark might apply — whether you like it or not — to the Committee. Therefore it will be worth while advertising a few simple truths about this much-abused concomitant of a military hierarchy and to explain the hold it has on the executive mentality.

I suppose it's fair to say that committees date pretty well from the dawn of time. They have always had an important part to play in human organization, a fact which by and large should make them socially acceptable. But nevertheless there seems to be an odour attached to them which apparently stems from the fact that, in the modern history of the Air Force, they have become so prevalent and they demand so much of the executive's time. In an organization headed by one man who knows all the answers, committees of course aren't necessary. However, as the enterprise grows in size and complexity, it becomes more and more impractical for any one man to fortify himself with the encyclopedic knowledge necessary to run it;



and, since good advice is needed to beget good decisions, up pops the committee. The more complex the organization, and the more technical the equipment used by it, the greater the number of committees which are necessary to provide the right advice.

The committee is first and last an advisory organization. Air Force Headquarters, right from the C.A.S. down to the lowest echelon, have two superimposed organizational networks for efficient management. There is the executive network, with its responsibility and authority clearly defined; and there is the advisory network, which consists essentially of committees — and where responsibility and authority are both sometimes much in doubt. The word “essentially” is used advisedly. The committee is the backbone of the advisory network, but before it we have the individual contact, the informal gathering, and the regular staff meeting. (Beyond the Service committee there is the inter-Service committee, the inter-departmental committee, and finally the government-industry association on boards, panels, etc.)

Service committees are non-voting organizations, and as bodies they have no executive authority. The only executive potential which a committee has is that vested in the members composing the committee. It might be argued that this is tantamount to giving the committee executive authority, but, in point of fact, organizations represented on a committee are not necessarily bound by the committee’s decisions. Such decisions can always be challenged by individual members who have appropriate executive backing.

It would, none the less, be unwise to underestimate the power of a committee. Most executives nowadays require firm recommendations to guide them. Committee action is a good “firming” medium; and it is not many executives who will move in the face of strong committee recommendations without valid and supportable reasons for so doing. The higher echelons in the Air Force management are no exception to these principles, and thus the well-run committee does have an effect on the direction of policy which quite dwarfs the fact that it has no executive authority in itself.

TYPES OF COMMITTEE

In dealing with committees (either from the policy end of creating them to meet a need, or from the working end of having to sit through countless hours of discussion and achieve some benefit therefrom) it is desirable to keep in mind the several types of committee which exist and the specific functions which they perform. First, then, here are the various kinds of committees encountered in the R.C.A.F.:

- The working committee.**
- The project team.**
- The steering committee.**
- The screening committee.**
- The *ad hoc* committee.**
- The panel.**
- The joint committee.**

Working Committee.

This type of committee is generally assembled to complete a specific job. Members usually come from several sources and may or may not report to the same executive head in the day-to-day performance of their tasks. Normally they will be working full time on a specific activity until the job is complete, when the committee should automatically be dissolved. If there is need to have a working committee on a more or less full-time basis, then a regularly established organization, such as a Service — or joint-Service — directorate (or element thereof), should be considered.

Project Team.

This appellation indicates a group of individuals assembled for something more than a weekly meeting but not necessarily on a permanent basis. Some periods may be devoted to full-time work on specific details; however, a lot of a project team’s activity may border on the activity of a steering committee. It is a name used essentially to add tempo to a requirement between the working committee and the steering committee.

Steering Committee.

This describes the type of committee which is most prevalent. They service all levels of executives



who are in doubt as to the wisdom of unilateral proposals or who require guidance beyond the capability of their immediate subordinates to recommend.

The Ad Hoc Committee.

This terminology describes a steering or screening committee which is generally assembled to resolve one or two specific points and then disbanded. It does not involve any formal constitution, but a record of agreements is usually kept.

Far from this type of committee being over-exploited, it is considered that much good would be accomplished by a greater use of it. Everyone has seen the file which started life with a simple problem to resolve and which, two or three months later, has developed into a bulky bit of bureaucracy containing no more meaty morsels than might have been forthcoming at an *ad hoc* gathering of individuals to exchange views and outline a course of action.

Screening Committee.

This is a specialized version of the steering committee, commonly associated with financial processes.

Panel.

A dressed-up name for a committee.

Joint Committee.

This name is, strictly speaking, out of place. All the types of committee presently listed involve "functional designators", i.e. working, project, steering, etc. The term "joint" is a "composition designator" and a joint committee may be any one of the other six types mentioned. However, it is included in the list and described because it plays such an important part in the committee hierarchy of defence headquarters.

The senior joint committee is the Chiefs of Staff Committee. Roughly speaking the Chiefs of Staff require two types of advice:

- advice related to matters of strategy and Canada's position in the international military field; and
- advice on inter-Service matters.

This is rather an over-simplification, but to provide the Chiefs with this advice, and in addition to the numerous committees which each Chief has in his own Service, there is a proliferation of inter-Service committees known as Joint Committees. They cover a very wide range of subjects, a few of which are: pay, dress, discipline, accommodation, dependents' education, health, transportation, weapons, training, communications, intelligence, and planning.

Executive lines of authority for a joint committee are somewhat difficult to define. It is, of course, in the case of committee disagreement where difficulty arises. In an ordinary Service committee, disagreement is resolved by the executive head to whom the committee is responsible. In the case of the joint committee, disagreement is resolved at the next senior joint committee, and ultimately the Chiefs of Staff Committee itself may be called in to arbitrate. In the case of disagreement among the Chiefs of Staff (which the Chairman naturally does everything to avoid) the matter is referred to the Minister for resolution.

THE FEATURES OF A WELL-ESTABLISHED COMMITTEE

First and foremost a committee should have some clearly defined terms of reference, and, equally important, these terms of reference should be kept up to date in the light of changing traffic due to changing circumstances. Executive lines of authority should be clearly established and defined. This latter is particularly necessary in the case of the subcommittee.

The intention of any staff officer to create a new committee should be communicated to the appropriate organization staff. The proposed terms of reference can then be studied in relation to those for any existing committee, and functional overlaps can be eliminated. It then may be both necessary and desirable to issue an organization order covering the committee activity, and this would of course be done by the organization branch. This organization order has the dual function of codifying terms of reference, and it is a means of advertising to all concerned the existence of a



committee which may be useful to other than those who have an immediate requirement for it.

Executive Back-Up.

It should be appreciated that without proper executive back-up it is practically impossible to hope that any committee will function effectively. Proper executive back-up consists of the preparation of agendas, co-ordination of the preparation and the circulation of supporting data, the keeping of minutes, follow-up to see that the recommendations of the committee result in proper executive action, and liaison with agencies not represented on the committee.

In general, the chairmanship of any committee should be vested in the individual with the greatest interest in the functioning of it, and thus the necessary executive back-up will flow logically from the executive staff of the chairman. The secretary of any committee will likewise normally come from the chairman's executive organization.

The job of being a committee chairman is more of a science than people at first imagine. It is common knowledge that a weak chairman will result in much waste of time and energy on the part of committee members. A chairman should take the trouble to study the prerequisites of a good committee chairman, and he must make a conscientious effort to inject into the proceedings the tact, courtesy, co-operation, and nice combination of flexibility and firmness which combine to make committee work both pleasant and effective. A committee is basically an advisory organization, and it is the chairman who is in the best position to extract the most valuable sort of information from the members and to mould details into constructive thought which will be of use in making executive decisions.

The committee hierarchy frequently gets so complex that there is a great need for close liaison between one committee and another. To accomplish this, it is frequently convenient and most practicable to draw committee secretaries from a common pool. This device is resorted to most notably in the case of the joint committee structure, where there is a common secretariat.

WHEN TO USE A COMMITTEE

In most major military formations at the present time, we find the executive network from top to bottom pretty well honeycombed with committees that cover all major fields where co-ordinated advice is necessary. But in so far as there is no committee which is actually a part of the executive lines of communication (though some in the joint-Service field approach this position), the question will frequently arise: when should a committee be used or when should it be by-passed?

In the case of traffic originating at lower levels, recourse to committee advice will rest as a decision of the executive concerned. For comparatively unimportant matters (where a telephone call, informal visit, or staff meeting will suffice) it will naturally not be necessary to trouble a committee. But, as previously stated, if the matter is important, committee consideration is generally essential before senior executives will make a decision. Thus, as a rule, it is always advisable to have an important matter pass through such committees as are available on the way up the executive chain.

In the case of business originating at the upper levels, there is perhaps more frequent cause for confusion. People are prone to assume that, because a very senior individual has originated a project, the matter can be finalized without reference to committees. But this is not necessarily so. A high executive may originate a project, but when it appears back before him in a final form for approval, he has every reason to expect that it will have been filtered by all the executive and advisory agencies available, and that what he has been asked to approve is the most reasonable answer available from the existing staff mechanism.

It should again be emphasized that the committee is an important advisory organization, usually has wide representation, and is capable of very useful work in firming up proposals no matter at what level they originate.

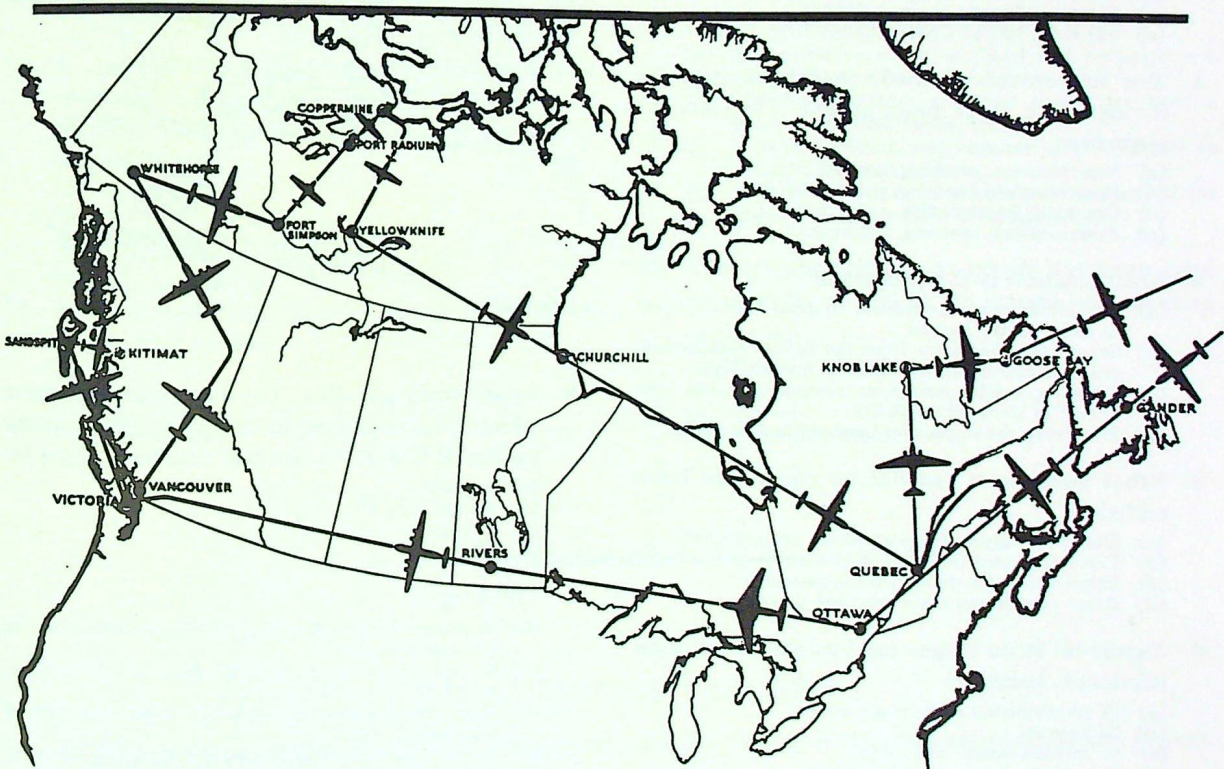
A FEW IMPORTANT DON'TS

It will be appropriate to end this discussion on committees with a warning against some of the more prevalent pitfalls.

- *Don't* let your committee become a "catch-all" for any type of unresolved problem. Make sure that submissions relate to your terms of reference.
- *Don't* let items get on your agenda which can be actioned by unilateral decision and intelligent staff action — but *do* remember that many committees are useful screening forums — and
- *don't* refer an item for committee discussion as a means of postponing executive decision.
- *Don't*, by waiting for production of minutes, delay such executive follow-up action as is within your competence.
- *Don't* let an item get on the agenda without being sponsored by an individual who has done some thinking and is prepared to table the story with or without recommendations.
- *Don't* set up a committee (other than of the *ad hoc* or working type) without checking with the organization branch of your staff H.Q., and when a committee no longer serves a purpose, again *don't* fail to contact the org. boys and get it off the books.



ROUTE MAP H.R.H. THE DUKE OF EDINBURGH'S VISIT TO CANADA JULY 29TH TO AUGUST 17TH



WHAT'S THE SCORE?

Last month Mr. John Macoun, of the Customs Excise Laboratory in Ottawa, was kind enough to prepare a questionnaire for us on the subject of alcohol. This month he has again provided us with twenty questions — on petroleum. Though all but two of the members of the Editorial Committee own cars, and though four of them are pilots, their average score was only 10. Correct answers appear on page 48.

WHAT'S THE SCORE?

- All petroleum is now believed to have originated from:
 - Vegetable deposits of the Carboniferous Age.
 - Organic matters deposited by marine life.
 - The action of the sea on limestone.
 - The fossilized remains of early mammals.
- The first oil well was sunk in:
 - 1853, by the Americans (560 ft.)
 - 1496, by Leonardo da Vinci (98 ft.)
 - 214, by a Roman engineer (850 ft.)
 - 200 B.C., by the Chinese (3,500 ft.)
- The refinement of crude petroleum may be divided into three main stages. They are, in sequence:
 - Fractionation, cracking, treating.
 - Fractionation, cracking, polymerization.
 - Cracking, fractionation, reduction.
 - Fractionation, treating, cracking.
- Fractionation is the process of:
 - Subjecting crude petroleum to great heat in order to drive off the carbon.
 - Separating the heavy from the lighter components of crude petroleum by means of a centrifuge.
 - Dividing crude petroleum (by distillation) into "cuts" of different volatility.
 - Removing the impurities from crude petroleum.
- Ethyl gasoline is gasoline to which has been added:
 - Diethylene glycol (to prevent its being drunk).
 - Tetraethyl lead (to prevent "knock").
 - Ethyl iodide (to deodorize the gasoline).
 - Ethyl alcohol (to lower the flash-point).
- Castor oil is no longer used as an aero-engine lubricant, because:
 - Of its medicinal effect on air crew.
 - Of its cost.
 - It "breaks down" too easily.
 - It tends to "gum up" the engine.

7. "Octane rating" is a measure of:

- Viscosity.
- Non-susceptibility to detonation.
- Volatility.
- Calorific value.



- Apart from gasoline, the petroleum product which has been used in the greatest quantity by the R.C.A.F. in the last fourteen years is:
 - Asphalt.
 - Lubricating oil.
 - Kerosene.
 - Grease.
- Cracking is:
 - A process by which heavier oils are broken down to produce gasoline.
 - A heat treatment given to gasoline in order to improve its octane rating.
 - A process designed to reduce the inflammability of lubricating oils.
 - A method of distilling gasoline from the heavier products of fractionation.



10. In descending order of volatility (i.e. in order of fractionation) are:
- (a) Lubricating oil, kerosine, gas oil, gasoline.
 - (b) Kerosine, gasoline, lubricating oil, gas oil.
 - (c) Gasoline, kerosine, gas oil, lubricating oil.
 - (d) Gas oil, gasoline, lubricating oil, kerosine.
11. The R.C.A.F.'s Medical Branch does *not* use petroleum products:
- (a) As laxatives.
 - (b) In the immediate treatment of burns.
 - (c) With surgical dressings.
 - (d) For lubricating X-ray equipment.
12. The natural gas which is in general domestic use in Canada:
- (a) Is a mixture of hydrocarbon gases derived naturally from the same source as petroleum.
 - (b) Was formerly associated by the superstitious with Will-o'-the-Wisp.
 - (c) Is in no way related to petroleum.
 - (d) Has its source in subterranean swamps.
13. Not necessarily a petroleum product is:
- (a) Kerosine.
 - (b) Vaseline.
 - (c) Ethylene glycol.
 - (d) Mineral seal oil.
14. A material which is added to lubricating oils in order to remove the non-volatile products of combustion from the inner parts of an engine is known as:
- (a) An emulsifier.
 - (b) A solvent.
 - (c) A detergent.
 - (d) A catalyst.
15. Most lubricating greases are a mixture of lubricating oil and:
- (a) Glue.
 - (b) Soap.
 - (c) Graphite.
 - (d) Vegetable fibre.
16. "Viscosity" is the term applied to a lubricating oil's:
- (a) Specific gravity.
 - (b) State of refinement.
 - (c) Price per gallon.
 - (d) Resistance to flow.
17. The S.A.E. (Society of Automotive Engineers) number of a lubricating oil is a code number indicating:
- (a) Its viscosity.
 - (b) Its weight per fluid ounce.
 - (c) Its kinematic viscosity at 100°F.
 - (d) The temperature (C.) at which it lubricates most efficiently.
18. Aviation gasoline is undesirable as a fuel for automobiles because:
- (a) It is liable to burst the cylinders.
 - (b) It smells particularly offensive.
 - (c) It tends to detonate.
 - (d) Its high lead content fouls up the sparks plugs.
19. A diesel engine weighs more per horsepower than a gasoline engine because:
- (a) The corrosive action of diesel fuel necessitates a greater thickness of metal.
 - (b) The high cylinder pressures necessitate heavier bearings, cylinder heads, etc.
 - (c) It is less efficient and requires more cylinders to produce the same power.
 - (d) Heavier cylinders are necessary on account of the highly explosive nature of diesel fuel.
20. The crudest petroleum which has been used successfully as fuel for an internal combustion engine is:
- (a) Kerosine.
 - (b) Diesel fuel.
 - (c) Gas oil.
 - (d) Crude petroleum.

THE SUPREME FAILURE

Of all failures, to fail in a witticism is the worst, and the mishap is the more calamitous in a drawn-out and detailed one. (*Walter Savage Landor.*)

SOMETHING MORE ON ACCOUNTS



By Sgt. W. S. Warnock, No. 1 Technical Training School, Aylmer.

(Sgt. Warnock, himself an accounts clerk, here sends us a reply to Eric Nicol's "Something on Accounts", which, it may be recalled, was reprinted in "The Roundel" for December 1953. — EDITOR).

WHEN Eric Nicol's article was republished, were the Editor's apologies offered to the moss-covered war-time square-pegs-in-round-holes who, often through no fault of their own, were clerk accountants? No. Those gallant men went down fighting a noble battle, so bless their little pointed heads and let them rest.

Or could it be that writer Nicol's article was resuscitated in order to serve as a spear aimed at the very heart of the hardest-working, most criticized, and least heralded branch of the R.C.A.F. today? Lest we forget, the dozing A.C.2s of war-time accounts fame now form, as senior N.C.O.s or accountant officers, the core of the present Accounts Branch.

Eric Nicol's humour is appreciated in the sense intended. But was there not a certain amount of reason for the time spent in morning-long pay parades at Manning Depots? It was certainly no enviable task to pay 6,000 airmen and keep your wits about you. Yet, when the accountant officer's smile slipped a little, someone immediately inferred that he resembled a character from Mickey Spillane.

Did it ever occur to the writer that clerk accountants are human too? If the other (conscienceless) personnel of the station dash towards the dining-room when the whistle blows, should not the clerk accountants? If the other (time-killing) personnel of the unit take time off for sports and current events, should not the clerk accountants? And if the other (hard-working) personnel of the

R.C.A.F. are entitled to close shop at 5 p.m., why not the clerk accountants?

Most people feel that time spent leaning on the accountant's counter is time well spent. Some Accounts Sections have a poster which reads "Queries will be entertained at 1400 hours daily", and at 1400 hours sharp the show starts. But do we find that the accountant officer begins to play frantically with the dial on his safe, or that the 'phone keeps ringing (by prearrangement), or that every clerk becomes instantly afflicted with an impenetrable deafness? We do not.

Each clerk accountant knows that his job is to provide service with a smile to his fellow Servicemen. Have you ever noticed the contented faces of the satisfied customers leaving the paymaster's wicket? Wallets are bulging and their owners are happy in the knowledge of having squeezed in an extra meal on a travel claim or of having converted their grandmother's kitchen clock on a moving-expense claim.

Certain sections or individuals have a tendency not to play ball with Accounts. Sometime when these types present themselves at the accounts counter, the N.C.O. i/c pay would get the greatest pleasure out of telling them there'll be no pay issued until after Christmas. (This he would do, of course, simply in order to see the expressions on their faces. The temptation is great.)

Next time Eric Nicol is near a peace-time Accounts Section, could he be induced to bring us up to date on his findings?

Personnel Movements ★ ★ ★

OFFICERS: MARCH

S/L A. W. Appleby, DFC, BEM — AFHQ to 2 ANS, Winnipeg.
 S/L W. C. Christmas — RCAF Stn Trenton to RCAF Stn Penhold.
 G/C R. M. Cox, DFC, AFC — NATO Defence College to AFHQ
 S/L W. T. H. Gill, DFC — 441 (F) Sqn, U.K., to 1 Air Div HQ, France.
 W/C N. Grant — RCAF Stn Summerside to RCAF Stn Goose Bay.
 W/C P. M. Hale, AFC — RCAF Stn MacDonald to AFHQ.
 S/L J. A. O. Levesque, DFC — 1 Air Div HQ, France, to 438 (F) Sqn (Aux), St. Hubert.
 S/L B. A. C. Prudhomme — ADCHQ, St. Hubert, to AAFCE HQ.
 G/C J. C. Scott, DSO — ADCHQ, St. Hubert, to RCAF Stn Aylmer.
 S/L J. W. Stewart — CEPE (CARDE), Valcartier, to 12 TSU, Weston.
 S/L J. A. Watt — 3 (AW) OTU, North Bay, to 419 (AW) Sqn, North Bay.

OFFICERS: APRIL

S/L A. G. Brunet, DFC — 438 (F) Sqn (Aux), St. Hubert, to FIS, Trenton.
 S/L J. F. Fewell — CEPE, Rockcliffe, to CEPE (CARDE), Valcartier.
 S/L C. F. Grigg — 4 FTS, Penhold, to FIS, Trenton.
 S/L E. Hurry — 1 TAC, Edmonton, to 12 ADGpHQ, Vancouver.
 W/C C. R. Knowles, AFC — AFHQ to CJS London.
 S/L J. M. MacArthur — 30 AMB, U.K., to 1 SD, Weston.
 W/C D. L. S. MacWilliam, AFC — AFHQ to FIS, Trenton.
 S/L M. W. McClellan, MBE — CEPE, Rockcliffe, to AFHQ.
 S/L P. G. McLaren — CJS Washington to AFHQ.
 S/L E. F. Nelles, DFC — RCAF Stn Uplands to FIS, Trenton.
 S/L C. S. Olsen — 412 (T) Sqn, Rockcliffe, to 426 (T) Sqn, Dorval.
 S/L W. S. Pearce — AFHQ to CEPE, Rockcliffe.
 W/C J. G. Showler, AFC — RCAF Stn Goose Bay to 408 (Ph) Sqn, Rockcliffe.
 W/C E. A. Smith — 1 SD, Weston, to 12 TSU, Weston.
 S/L E. W. Smith, DSO — 442 (F) Sqn (Aux), Sea Island, to RCAF Stn Trenton.
 W/C V. C. H. Stuart — AFHQ to 1 Air Div HQ, France.
 G/C C. L. Trecarten, OBE — RCAF Stn Aylmer to TCHQ, Trenton.

WARRANT OFFICERS: MARCH

WO1 C. P. Gillman — 2 CMU, Calgary, to RCAF Stn Rockcliffe.
 WO1 W. G. Gooding — 121 C & R Flt, Sea Island, to 442 (F) Sqn (Aux), Sea Island.
 WO2 A. MacAuley — 1 SD, Weston, to 12 TSU, Weston.
 WO1 J. C. Snider — RCAF Stn Winnipeg to RCAF Stn St. Johns.

WO1 J. O. Titley — 3 FWgHQ, Germany, to 427 (F) Sqn, Germany.

WARRANT OFFICERS: APRIL

WO2 R. D. Bogue — 12 TSU, Weston, to AFHQ.
 WO1 H. L. Dole — 1 R&CS, Clinton, to 2 TTS, Camp Borden.
 WO2 S. M. Estwick — 1 R&CS, Clinton, to RCAF Stn Centralia.
 WO2 A. H. Gibb — 408 (Ph) Sqn, Rockcliffe, to 4 (T) OTU, Trenton.
 WO1 N. M. Gill — RCAF Stn Sea Island to RCAF Stn Goose Bay.
 WO2 L. S. Hiltchey — RCAF Stn Edmonton to 1 TAC, Edmonton.
 WO2 A. B. Hillman — AMCHQ, Ottawa, to RCAF Stn Bagotville.
 WO2 W. T. James — 408 (Ph) Sqn, Rockcliffe, to 426 (T) Sqn, Dorval.
 WO1 F. Machan — 407 (MR) Sqn, Comox, 6 RD, Trenton.
 WO2 N. J. Matthews — 1 R & CS, Clinton, to 2 TTS, Camp Borden.
 WO1 E. H. Miller — AFHQ to SHAPE HQ, France.
 WO2 C. N. Rooke — AFHQ to 1 SD Weston.
 WO2 A. Short — RCAF Stn Centralia to 30 AMB, U.K.
 WO1 F. J. Welsh — RCAF Stn London to RCAF Stn St. Johns.
 WO2 G. A. Westhaver — RCAF Stn Summerside to RCAF Stn St. Hubert.

KEY TO ABBREVIATIONS

AAFCE — Allied Air Forces Central Europe
 ADCHQ — Air Defence Command Headquarters
 ADGpHQ — Air Defence Group Headquarters
 AFHQ — Air Force Headquarters
 AMB — Air Materiel Base
 AMCHQ — Air Materiel Command Headquarters
 ANS — Air Navigation School
 (AW) — All Weather
 CARDE — Canadian Armaments Research and Development Establishment
 CEPE — Canadian Experimental and Proving Establishment
 CJS — Canadian Joint Staff
 CMU — Construction and Maintenance Unit
 C&R Flt — Communications and Rescue Flight
 (F) — Fighter
 FIS — Flying Instructors School
 FTS — Flying Training School
 FWgHQ — Fighter Wing Headquarters
 GpHQ — Group Headquarters
 (MR) — Maritime Reconnaissance
 OTU — Operational Training Unit
 (Ph) — Photographic
 R&CS — Radar and Communications School
 RD — Repair Depot
 SD — Supply Depot
 SHAPE — Supreme Headquarters Allied Powers Europe
 (T) — Transport
 TAC — Tactical Air Command
 TCHQ — Training Command Headquarters
 TSU — Technical Service Unit
 TTS — Technical Training School

Feminine Gen

(From L.A.W. R. M. Koehn and L.A.W. H. L. Soucy, both of R.C.A.F. Station St. Hubert, come accounts of their first flights in the CF-100. "They tell us", they write, "that we're the first women to ride in Canada's new all-weather fighter." Faced with the problem of which of these two excellent narratives we should publish, we have decided upon L.A.W. Soucy's because it is more detailed and may serve to give our own readers a clearer idea of what a first flight in a CF-100 feels like. The authoress is a Group 2 Armament Systems Technician and also holds a private pilot's licence.—EDITOR.)

SOU AND THE CF-100

Sleek and silver they gleamed, their white and red trim a saucy challenge to the depression of the greying afternoon. The height of their straight square-tipped wings gave them the appearance of being about to lift in flight. The thick but smooth-flowing lines of the twin Orendas hinted at the leashed power within.

"Like to go flying?" asked a casual voice beside me.

I whirled from the crew-room window. It was the flight lieutenant who is second-in-charge of our navigators.

"Would I!" I gasped.

"'48 needs an air test on the radar. You can handle that, can't you?"

I agreed emphatically, privately wondering if, in my excitement, I'd even remember how to turn on the set.

It was not hard to find a flying-suit that fitted my height (though bulk was another matter). The real difficulty arose over the oxygen mask. Such masks as were available seemed to have been designed for the square-jawed he-men portrayed in the recruiting ads, not for the smaller faces of airwomen. Finally, however, we managed to tighten one sufficiently so that it slipped only when pushed, instead of all the time.

"The cabin's pressurized above twelve thousand, anyway," remarked the navigator, who was fitting me out, "so a little leakage won't be serious. If you feel you're not getting enough oxygen, you can switch over to one hundred per cent."

Suited, and carrying my helmets, I walked out across the tarmac and climbed up the ladder into the aircraft while it was being refuelled. The navigator, perched on the port nacelle, gave me a brief cockpit check.

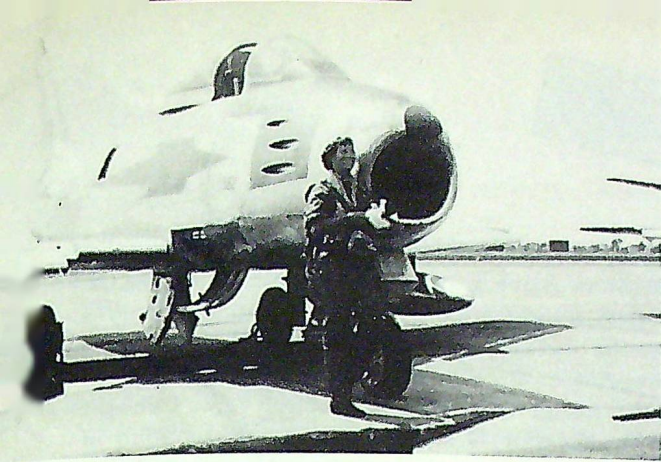
"You'll be responsible for seeing that all the proper resets on that panel are on," he informed me. "All the red ones must be up — same with the radio resets over there." He indicated another panel on the other side of the cockpit.

Well, bless AVRO for that bit of foresight, I thought, picturing my confusion had there been no colour difference between the dozens of little switches!

"Now," he continued, "if you'll look back beside your seat there, you'll see the emergency undercarriage and flap buttons."

I looked, puzzled to see only what appeared to be a couple of broad-headed screws. "These?" I asked, pointing at one of them.

"Don't touch 'em!" I was cautioned instantly. "If the electric system should go for a chop



L.A.W. H. L. Soucy

during flight, the pilot will ask you to use those. You won't be able to see them when you're strapped in, but you'll be able to reach back all right.— Not that there's much chance you'll have to," he added comfortingly. "And there's the oxygen blinker to your right."

I nodded. The little yellow piece showing through the window of the gauge would slide out of sight each time oxygen was drawn through the valve.

"Now, those clips on the belt of your flying suit fit into these on the seat pack. They hold the pack to you, in case of ejection. You know the ejection procedure?"

"Yes, Sir." I nodded again, recalling one of my course lectures. "Canopy off by either pilot or navigator, feet back into the seat foot rests, knees together, then"—lifting both hands above my head, I made a gesture of tugging on the ejection handle—"then unlock the lap strap and kick free of the seat . . ."

"And pull your ripcord," he added, grinning.

Finally, both planes of "Red Section" were ready. Air crew and ground crew strode out to the line while the flight lieutenant helped me to strap myself in.

Then he handed me a navigator's "hood" (a black cloth used to block out the sunlight which would render the fluorescent radar scope trace invisible) and showed me how to fasten it or tuck it back out of the way.

Cloth helmet on, mask secured, oxygen hose connected, radio lead plugged in—and finally the crash helmet, with its red and white squadron colours, was pushed firmly on to my head by the navigator, as an L.A.C. pulled the seat pin, which

is a safety device to prevent the firing of the ejection seat's explosive charge while the 'plane is on the ground. He held it before my eyes before shoving it into the little storage pocket on the side of the seat. How often had I made the same gesture myself! It made my reversed situation even more vivid to me.

The mechanics climbed down and took away the ladder. My pilot cranked forward the canopy and signalled the ground crew that he was ready to start the engine. First the port, then the starboard Orenda hummed into life. Even when the engines were being run up, there was no shake or clatter—only a deep throbbing sensation of power.

Presently our companion aircraft, '61, was also ready for takeoff. I heard my pilot's voice on the radio.

"Trout Tower, this is Red Leader. Over."

"Roger—Trout Tower. Go ahead. Over."

"Trout Tower—Red Leader. Taxi clearance. Over."

"Roger, Red Leader. Clear to taxi to button of Two Four. Wind two five at twenty. Altimeter two eight eight two. Time two zero. Over."

"Roger—Red Leader checks. Over."

Brakes released, we slid forward and taxied past the other 'plane, which followed us on down the taxi strip.

At the downwind end of the runway we paused, while Red Leader requested ". . . clearance for formation take-off . . ."

"Red Leader, there is a Vampire in the circuit. He is just on the break over the button. Stand by. Over."

"Red Leader roger."

There was the Vampire. It swung overhead, disappeared on the downwind and base legs of its circuit, and reappeared low to the left on its final approach. Sweeping past us, the little aircraft touched down and raced on up the runway.

"Red section clear to line-up and hold."

We moved on to the end of the runway. Half behind us, '61 lined up to our right. A nod between the pilots—and the two 'planes, as one, rolled forward. The white cross-lines on the runway began to flash by . . .

It was hard to distinguish the sense of lift that

announces flying speed. Only when I saw '61's wheels clear of the runway was I sure we were airborne.

The airport fell away behind us and we seemed to plunge upward toward the slightly broken layer of altocumulus. The world turned white, '61 vague beside us, then . . .

Puffy and white — dazzling white — the clouds spread out below us to the horizon. There were no landmarks to break the long sweep of it about us. Above and around us was a sky so blue that one wanted to swim in it; and, to the west, a sun like molten gold poured its radiance over us. Indeed, we seemed to be immersed in a golden liquid of marvellous transparency and warmth of colour.

Through the breaks in the clouds I could catch glimpses of the ground, where landmarks were dark grey against the lighter grey of the snow-covered fields. How I pitied all the wingless creatures who were looking up to an overcast sky, receiving but brief glimpses of the sun which spread its brightness over my entire world up here! Who has not flown has not lived.

My pilot contacted Ground Radar.

"Firefly Control, this is Joppa Red Leader, airborne at two six, heading three six zero at angels twenty. Over."

"Roger, Joppa Red Leader; this is Firefly Control. We have you in good radar contact. Over."

"Firefly Control, Joppa Red Leader. Request bubble check. Over".

"Roger, Joppa Red Leader; steer three four zero. Over."

"Red Leader checks three four zero."

After a few minutes came the further information, "Joppa Red Leader, this is Firefly Control. You are now twenty miles south of check-point."

We dived through one of the breaks in the cloud to locate the designated landmark. Then we pulled sharply up in a climbing turn so steep and fast that I was clasped helplessly immobile in my seat. I thrilled to the view of close ground and closer clouds flashing past our port wing tip. For the first time I really appreciated our speed.

Rather unwisely, I chose this moment to start observing my radar set. Tossing the black cloth over my head, I bent to watch the glowing trace

sweep across the face of the scope. A feeling of slight negative g told me we were diving again. I paid no attention to the warning. Suddenly a terrific pressure slammed at my bent head, dragging it down almost against the radar panel. In an upright position, with a clear view, I delight in the pressure of a pull-out, even to the point of black-out; but bowed forward, under a stuffy light-proof cloth, I momentarily panicked. Somehow I dragged my hands up and clawed the cloth clear of my head. What a relief to see those dizzying flashes of cloud! And how foolish I felt for my moment of claustrophobia.

We now prepared for the test I was to make on the radar. The other aircraft pulled out ahead of us to present a target and I again buried myself with the radar. Ground checks I had done in plenty, but this was my first experience of an air-to-air "attack" on a moving target. Like a novice hunter, I shook with "buck fever." The seconds it took me to spot my target seemed like minutes. Grabbing the hand control I "locked on" and answered the pilot's query with "Got him, Sir!" The test proceeded . . .

When all had been proved satisfactory, I settled back to enjoy the rest of the flight with undivided attention.

For a while we flew in formation well above the surface of those delicious-looking clouds, going as high as twenty-three thousand feet, which was a new record for me.

Diverging for "elbow room," both 'planes began doing rolls. Sky and clouds tumbled alternately over us. I hoped for more aerobatics; but soon the two 'planes formed up again. '61 took over the leadership, and once more we were flying under radioed guidance from the ground.

Gradually I became aware of a feeling of tiredness. Maybe the effect of g I thought. It hadn't been excessive, but I wasn't used to it. Perhaps some extra oxygen would pep me up. I held my mask pressed tightly against my face, watching the blinker tell me I was breathing the proper oxygen-air mixture instead of mostly cabin air, as I had been doing. It seemed to help. As long as it was not a symptom of my first case of air-sickness,

as I had briefly feared, I couldn't care less how tired I got.

By now the sun had dropped far enough to be turning reddish. The clouds had lost their brilliance, but continued to look like scoops of whipped cream; and our companion 'plane still shone silver and red and white against the blue and white backdrop.

Red Leader announced that the section was going on to the tower frequency, then requested permission from the tower to make a formation let-down. Guided by the Automatic Direction Finder from the tower, we turned on to course and began to descend. Although I regretted that the flight was coming to an end, I was conscious of a feeling of relief, so great had my weariness become.

I listened to the radio voice guiding us down. The altimeter rolled slowly back: twenty thousand, eighteen, fifteen, twelve, ten . . . Suddenly my tiredness was gone and I realized then that minor oxygen starvation had been bothering me until we dropped below pressurization height and I began to breath fresh air again.

Ground Controlled Approach took us over at 5,000 feet and continued to talk us down. "Dive brakes out," said Red Leader. I felt '48 quiver lightly.

The ground was still invisible beneath a now solid undercast, which was no longer the blinding layer of whiteness it had been an hour before. Under the increasingly red rays of a sun that had sunk low on the horizon, it was a dull white, turning slowly grey.

Moments later, we dropped into the cloud, and even the bright paint on '61 was dimmed in the obscuring greyness. Then we broke through, and the beauty of the undercast was irretrievably ex-



L.A.W. R. M. Koehn

changed for the oppressive monotony of an overcast.

We slid smoothly on down our approach path. So accurate had been our instructions that no alterations in the flight path were needed when we once more saw landmarks.

"Wheels down," came the order; and both 'planes unfolded their respective undercarriages.

"Red Leader," inquired G.C.A., "is Red One or Red Two landing on this approach?"

"Red Two," '61's pilot informed them. "He is on the starboard side. I will go around for a normal approach after he has landed."

The runway was suddenly before us. As we dropped the few remaining feet, '61 pulled up and disappeared from sight. White-marked black asphalt flashed beneath us. Smoothly, '48's wheels made contact and gradually braked the landing run.

We taxied back to the line in front of our hangar. The Orendas whispered into silence.

HASTEN SLOWLY

Sir Amice Pawlet, when he saw too much haste made in any matter, was wont to say, "Stay a while, that we may make an end the sooner."
(Francis Bacon.)

THE BALLOONATICS

(The author of the following personal reminiscence is a retired R.A.F. Group Captain of many years' experience. In the letter which accompanied his story he writes: "I was most interested in Colonel Rivers-Macpherson's article, 'Soaring in a Sausage', and I share his awe of the hazards faced by those remarkable men who manned the observation balloons of the First World War. It is a great pity that they have so long remained among the unsung heroes of the air. The inglorious small part played by myself in this phase of aerial warfare is hardly to my credit, and you will readily understand my desire to remain anonymous!"— EDITOR.)

IN 1915, while serving in France with the 5th Battalion of the Gordon Highlanders, during a brief period of rest from the trenches I was lunching with a very old friend who was commanding a Balloon Wing. The Officers' Mess overlooked the Messines Ridge. The trenches were clearly visible, as were the occasional bursts of shells. We could hear an odd "crump" or two as the nearer ones exploded, and the "rat-tat-tat" of machine guns indicated the nearness of the Mess to the enemy. Over a pink gin or two before lunch, we had swapped accounts of our various experiences. Then, during lunch itself, we shared an excellent bottle of burgundy which was nicely rounded off by a glass or two of port.

Sitting on the steps of the Mess, full of the contented feeling that follows a perfect meal, we enjoyed our cigars as we watched three of my friend's observation balloons swaying in a fairly strong wind at the end of their long cables. I had just finished describing my recent eight days in the trenches immediately in front of us, when suddenly he asked: "Would you like to have a look at them from the air?"

My sense of caution must have been lulled by good food and excellent wine, for I replied with enthusiasm: "Rather, I'd love to."

Could I have foreseen what I was in for, I would have risen silently and made my way with all possible speed back to my battalion. As it was, we were shortly afterwards both installed in a large deep wicker basket and the winch had begun to let out its cable.

* * *

Always I am filled with nausea and a very real fear of falling when I look over the edge of a high cliff or tall building. Thus, the higher the balloon soared into the sky, the smaller and shallower the basket seemed to become. The fact that it did not remain on an even keel, but swayed alarmingly from side to side, filled me with an urgent desire to sit on the floor in preference to standing.

As the sky above us was overcast with a good deal of cloud, our ascent ceased at about 2,000 feet. The C.O. bent over the basket edge and pointed below.

"There is your old line, and there, just across the way, are the German trenches."

Until then I had carefully avoided looking below, preferring to concentrate on the large gas-bag above my head, or on the very distant scene. However, I now cautiously peered below. Only those who share with me the dislike for looking directly down from high places can appreciate how I disliked having to do so. None the less, I managed to assume a certain nonchalance.

"What a marvellous view!"

"The three balloons south of us", my friend went on, "are spotting for the guns shelling that village half right and —" here he paused, and with a mixture of anxiety and annoyance added — "Oh, Hell! Look at that."

I had already seen it. An aeroplane with enemy markings had dived through the clouds above the most southerly balloon.

Almost simultaneously with the appearance of the aircraft, I had seen two diminutive figures

leave the balloon basket and white parachutes open and descend slowly earthwards. There was a "rat-tat-tat" from the German pilot's machine-gun, and almost at once a glow of orange flame appeared that quickly enveloped the balloon, which rapidly sank in flames — passing uncomfortably near to the white parachutes and their little figures. To my disgust, the German dived towards them and once again there was a "rat-tat-tat" from his machine gun. The aircraft then swept up towards the balloon next but one to ours. The Wing Commander immediately turned to me. "This is where we step out on to nothing."

"Where is our air support?" I asked anxiously.

"The only air support you are going to have in about two minutes is in that bag, laddie," he replied, indicating a parachute pack. "I'll help you put it on."

"No thanks! I'm staying where I am until they haul us down."

"There'll be no time to haul us down. We'll have to jump overboard — and quick about it!"

"You do what you like, old boy. I'm staying in this basket." I was getting obstinate . . .

Despite the gravity of the situation, I saw a light of amusement in his eyes. "There's no time to argue, laddie," he said. "You're about to take off on your first flight."

In the struggle that followed, I was no match for him. Although I resisted stoutly, he was twice my size and I was like a child in his hands. After the briefest of tussles, he got the equipment on me by dint of kneeling on me in the bottom of the basket. Then, panting a little from his exertions, he lifted me on to the edge of the basket where he held me face downwards. When I glanced up at him there was a grin of amusement on his face. In rough friendliness he ruffled my hair.

"Happy landings!" he said.

Then taking me by the back of my collar and back of my Sam Browne belt (the seat of my breeches not being available, as I wore the kilt), he lifted me clear of the basket. For an awful moment, far below me, the earth swayed from side to side as we swung in the wind. Then he dropped me, and I hurtled down through space.

Eyes tightly shut, I wondered whether I would



be killed instantly when that sickening "thud" came as my body crashed to earth 2,000 feet below, or whether consciousness would depart before I reached the ground. It seemed to me that I must almost be there, when a jerk on the harness told me that I was receiving the "air support" promised me. On opening my eyes, I saw the large white parachute fully open above me. This way and that I swayed, while the earth performed nauseating movements far below me and the unsuitability of the kilt for parachute descents became speedily apparent. Far above me was the balloon from which I had so unwillingly been parted, but of the other balloons there was no trace. Somewhere near I heard the roar of an aeroplane engine, and the German aircraft loomed large into view above and behind me. Would he dive and riddle me with machine gun bullets or attack the balloon? He did a steep banking turn towards the latter and it was not until that moment that I saw my companion jump.

It was with somewhat mixed feelings that I watched the sudden approach of a British aircraft — relief when I saw the German instantly turn homewards and realized that we would not be machine-gunned, and a reaction of resentment at seeing the balloon now safe above me and at realizing that a little earlier appearance of our rescuer would have obviated both my present suspension between heaven and earth as well as the shameful struggle that had preceded it.

Even now, however, my troubles were not quite over. I noticed that not only was I descending quite fast, but that a strong wind was carrying me rapidly over the ground towards a very large lake. Even if I did not land in the water, I was certainly going to make my landing at a time when the earth was travelling past me at about twenty miles an hour. This was disconcerting.

I decided to attempt the same sort of technique that I used in my youth when jumping on and off swiftly-moving roundabouts. Just before touching down, I commenced running in the direction the

earth was travelling. Unfortunately, because of my swinging and turning in the air when I actually landed, I was running in the wrong direction and fell flat on my face, in which position I was dragged some distance before managing to struggle to my feet, very scratched and badly bruised. Despite leaning back and resisting with all my strength, I was forced onwards by the parachute at a stumbling run towards the lake — “Dickibush” Lake. Again I fell down, and it was while I was being dragged over the roughest ground on my back that I managed to release myself from the harness. I was then ten yards from the edge of the water. As I sat there, dishevelled, bruised, and utterly exhausted, my parachute blew into the lake.

It was with a deep sense of gratitude that I made my way back that night to join my comrades of the 51st (Highland) Division in the comparative safety of the trenches and to “shoot a wonderful line of bull” to an unbelieving audience. I have no doubt but that it made a better story than this revised and more truthful version.

CANADA

We are a North American nation, but we are also proud to be a member of a Commonwealth of Nations which includes all the other non-American English-speaking countries — and some others, including three in Asia. In this dual rôle, Canadians are supposed to have special qualifications, and a special incentive, for assisting the lion and the eagle to live peacefully together — an achievement which is neither biologically nor politically easy. Our value in this respect may be overstressed, but there is, I think, something to it. More than once, I know from experience, a Canadian has been able to advocate a British position in Washington without dire consequences because he did it in an American accent, while his support in London of an American position has been listened to more attentively because the advocate may have had his trans-Atlantic words

softened by an Oxford education, and, in any event, is a subject of the Queen. Someone, indeed, has cynically observed that we Canadians are so busy being British in Washington and American in London that we often forget to be Canadians. It is a danger, I admit, but I do not think we have succumbed to it. If we were tempted to, the facts of our history, and the pattern of our population, would come to the rescue. Our national existence is based on two founding races, only one of which is British, and the other isn't American! Furthermore, we are developing into a strong awareness of our own separate identity, as we stand confidently now on our own feet, moving toward a great national destiny but anxious, in the process, to keep in step with our friends.

(The Hon. L. B. Pearson)

The ROYAL CANADIAN AIR CADETS

By Arthur Macdonald, Air Cadet League of Canada

EXCHANGES PLANNED

As a result of a lengthy trip made by the Honorary President, C. Douglas Taylor, the Air Cadet League is able to announce continuation of the international exchange visits programme on

exactly the same basis as last year. Acting as the League's "director in charge of external relationships", Mr. Taylor has visited the United Kingdom, continental Europe, and the United States, in order to line up exchange plans, with six different countries, for a total of 58 cadets. Groups of 25 cadets will be exchanged with the United States and Britain, and two cadets each will visit Norway, Sweden, Holland, and Denmark.

Mr. Taylor was accompanied on his extensive travels by League General Manager George M. Ross and Wing Cdr. C. M. Black, D.F.C., Senior Air Cadet Liaison Officer at A.F.H.Q.

In addition to the exchange programme, the following special activities will be carried out by the League and the R.C.A.F. during the coming summer:

Two Western "exchange visits". The picture in the classroom was taken when cadets of No. 248 (Shaunavon) Squadron were entertained by No. 20 Squadron in Assiniboia, Sask. The other photograph shows a combined church parade which was held in Dawson Creek, B.C., where No. 353 Squadron played host to a large group of cadets from Prince George. (Bilvic Studios photo.)



- Camps for upwards of 4,000 cadets will be held at Greenwood, N.S., Clinton, Ont., and Abbotsford, B.C. The camps will again offer advanced instruction for cadets, familiarization flights, and a full schedule of organized sports.

The first Group of the Netherlands "Jeugd Luchtvaart Brigade" (Youth Air Brigade), near the Hague. Patterned after the Air Cadet movement in Canada, the Youth Air Brigade is a direct development of the international Air Cadet exchange visit scheme. Attending the inauguration were C. Douglas Taylor, Honorary President of the Air Cadet League; G. W. Ross, General Manager; and Wing Cdr. C. D. Black, D.F.C., Senior Air Cadet Liaison Officer. (Anpfoto).

CADET HERO

The Royal Canadian Air Force, the Air Cadet League, and the citizens of Chatham, Ont., paid official tribute recently to Air Cadet Hector J. Moore, who was drowned last summer while saving the life of a young friend.

In a moving ceremony at the Kinsmen Auditorium, attended by many military and civic dignitaries, Mr. and Mrs. Vital Moore received, from the hands of Air Vice-Marshal J. G. Kerr,



- Two hundred and fifty cadets will be selected to receive R.C.A.F. flying scholarships, which provide for 30 hours of flying instruction and sufficient ground tuition to qualify the cadets for private pilots' licences. At the time of writing, more than 300 cadets have qualified in every respect for the course. One hundred cadets from across Canada will again be selected to attend the second Senior Leader Course to be held at R.C.A.F. Station Camp Borden. The Course will be of seven weeks' duration, and successful graduates will receive a training bonus of \$100.
- A forty-cadet drill team will be selected from the Camp Borden group to represent Canada at the International Drill Competition, to be held in late August at St. Paul, Minnesota.

Names of all the cadets selected for the above-mentioned awards will be announced officially by the League early in June.

C.B.E., A.F.C., the Cadet Award for Bravery which was awarded posthumously to their son.

Hector Moore, on 9 July 1953, saved the life of a ten-year-old girl who fell into the Thames River while playing. In effecting the rescue, he so exhausted himself that he was unable to regain land and was drowned. As stated in the official citation: "Cadet Moore, without hesitation and with complete disregard for his own safety, offered his own life in order to save that of a friend. No one could give more or deserve higher honour."

Air Vice-Marshal Kerr, in making the award, noted that it is the responsibility of adults to set a good example for youth. "Here", he said, "we



Air Vice-Marshal G. E. Brookes, C.B., O.B.E., with cadets of No. 1 Wing, Vancouver.

Cadet Sgt. R. Smith of No. 34 Squadron, pictured here with his mother, Mrs. G. Smith, after receiving his wings on "Parents' Night". The squadron is sponsored by No. 600 (Regina) Wing, R.C.A.F.A.

have an inspiring reversal of that ideal, for Hector Moore, by his unselfish devotion to a friend, has set a high personal example for every one of us. We are proud to know", he concluded, "that Hector Moore wore the uniform of an Air Cadet."

From the solemn opening music, played by the Air Force's Training Command Band, to the final drill of No. 294 Squadron's precision squad, the presentation was both an impressive military ceremony and a well-deserved tribute to a courageous young Canadian.

CLOSE CALL

Air Cadet Lorne Mahar, of No. 507 (Kentville



Lions) Squadron, was the central figure in an incident that involved the Halifax Flying Club, the R.C.M.P., and the R.C.A.F.'s Search and Rescue service. Fortunately, the story has a happy ending.

Cadet Mahar, who learned to fly under an R.C.A.F. Air Cadet scholarship, took off recently in a float-equipped Piper Cub from the Halifax Flying Club base at Waverley. He was planning a routine cross-country flight that would take him to Short Lake near Truro, then to Sheet Harbour, and back to Waverley. On the second leg of his triangular route, he strayed slightly off course and, on reaching the coast, he ran into fog that obscured the shoreline and left him wondering exactly where he was.

His fuel began to run low as he searched for a landmark, so he decided to attempt a landing on the only patch of clear water in sight — a small lake in very rocky terrain. Young Mahar managed to make the difficult landing safely, taxi his 'plane to the shore and started out to walk the three or four miles to the nearest telephone. Meanwhile, the aircraft had been reported overdue and the Search and Rescue service of the R.C.A.F. and the R.C.M.P. were swinging into action.

Flying club president L. Allen took off with H. Nelson in the latter's aircraft to get the search under way. They landed at Lake Charlotte and 'phoned the club to learn that Mahar had finished his long hike and had reported his whereabouts. The club officials promptly took off, duplicated Mahar's tricky landing, and refuelled the Piper Cub. Mr. Allen then flew the Cub back to Waverley with Cadet Mahar aboard.

The incident behind him, Mr. Allen then had to rush to City Hall where, as an alderman, he was due to represent his ward at a meeting of the City Council.

CADET TEST-PILOT

For most boys, the thought of being a test-pilot remains merely a dream.



Cadet W.O.2 W. Tarling. (Star photo.)

But a 16-year-old Scarboro Air Cadet, William Tarling, was "test-pilot for a day" at the de Havilland aircraft plant, where he flew both jets and propeller-driven aircraft just a matter of months after his first solo.

A W.O.2 in No. 218 Squadron, of Toronto, Bill was the winner of an annual judging to select the top all-round Air Cadet. The one day's job was the prize.

Bill, who became an Air Cadet even before his dad (who was a member of the R.C.A.F. in the Second World War and is now an Air Cadet adjutant), made his first solo earlier this year, a few days after he turned 16. With 18 hours now in his log-book, he expects to receive his Air Cadet wings soon, under a training scheme backed by the Danforth Lions Club, which sponsors No. 218 Squadron.

In more than four years with the squadron, he's never missed a parade. His brother Frank, 15, also has a perfect attendance record with the Air Cadets. Like Bill, he is a Boy Scout and a track star.



ROYAL CANADIAN AIR FORCE

Association



(This section is prepared by the R.C.A.F. Association and does not necessarily reflect the official views of the R.C.A.F.)

WING NEWS

No. 302 (City of Quebec) Wing, Quebec

No. 302 Wing recently held the second in a series of four "Famous Canadians" dinners which it is sponsoring this season. The guest speaker on this occasion was A. H. Hollingworth, M.P., Toronto. Mr. Hollingworth chose as his subject "Choosing a Canadian Flag". He is noted for his efforts in the campaigning for a distinctive Canadian flag. On his visit to Quebec, Mr. Hollingworth put his newly-acquired French vocabulary to good use when he addressed the members of the Wing, as the newspapers put it, "in impeccable French". W. LeGallais introduced the speaker and L. Villeneuve thanked Mr. Hollingworth on behalf of the Wing.

No. 310 (Wilno) Wing, Montreal

On 9 April, Air Vice-Marshal G. E. Brookes, C.B., O.B.E., National President, presented the Charter to No. 310 (Wilno) Wing. The Wilno Wing is composed principally of members of Polish extraction who served with or under the direction of the R.A.F. during the Second World War. The Wing has an initial membership of approximately 100. Honoured guests present at the Charter presentation included Air Vice-Marshal A. L. James, C.B.E., and B. Kwiecinski, a former Air Commodore and Polish Air Attaché in Great Britain during the war. A number of members from the other Wings in Montreal were also present.

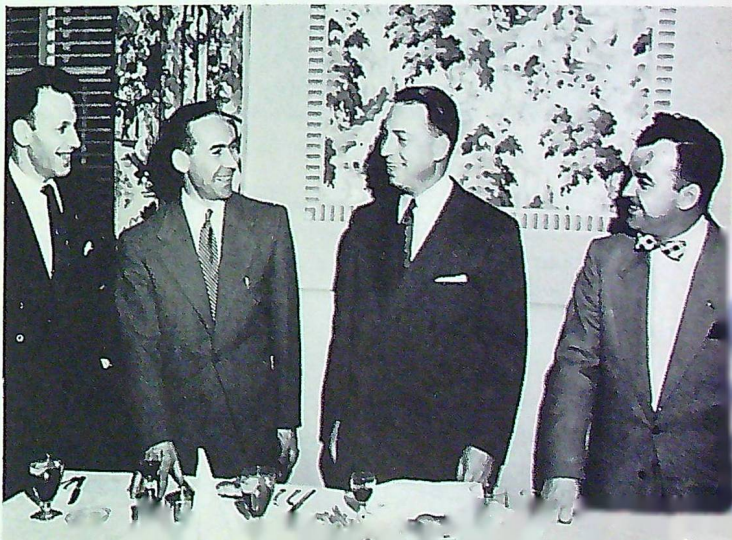
No. 404 (Kitchener-Waterloo) Wing, Kitchener

No. 404 Wing recently held its annual dance at Rosslyn Grove, with an approximate attendance of 400. The dance was highlighted by the draw for a television set, which netted \$1200. The money will be used in support of the Air Cadet Squadron which this Wing sponsors so well.

No. 412 (Windsor) Wing, Windsor

The Windsor Air Force Club, which sponsors two Air Cadet squadrons, recently took 75 air cadets for a day's visit to R.C.A.F. Station Centralia. The dreams of these eager cadets were realized when they took to the air from Windsor airport. The cadets were afforded a royal time at R.C.A.F. Station Centralia.

No. 302 Wing. L. to r.: S. Lax (President), W. LeGallais (dinner Chairman), A. H. Hollingsworth, M.P., L. Villeneuve (Wing Director).



No. 700 (Edmonton) Wing, Edmonton

This year the members of No. 700 Wing prevailed upon former Group Captain D. (Tiny) Ferris, D.F.C., to do a repeat in the president's chair. "Tiny" served as president of the Wing during the organizational year of 1949, and under his direction the Wing prospered.

Many things are planned for 700 Wing this year, and we are confident they will be accomplished.

The event was so successful that plans are in the making for a bigger and better show next year.

No. 432 (Sault Ste. Marie) Wing, Sault Ste. Marie

No. 432 Wing held its charter night in the form

No. 310 (Wilno) Wing. L. to r.: B. Kwiecinski, K. Nowak (Treasurer), Air Vice-Marshal A. L. James, C.B.E., Air Vice-Marshal G. E. Brookes, C.B., O.B.E., K. Bielecki (President).

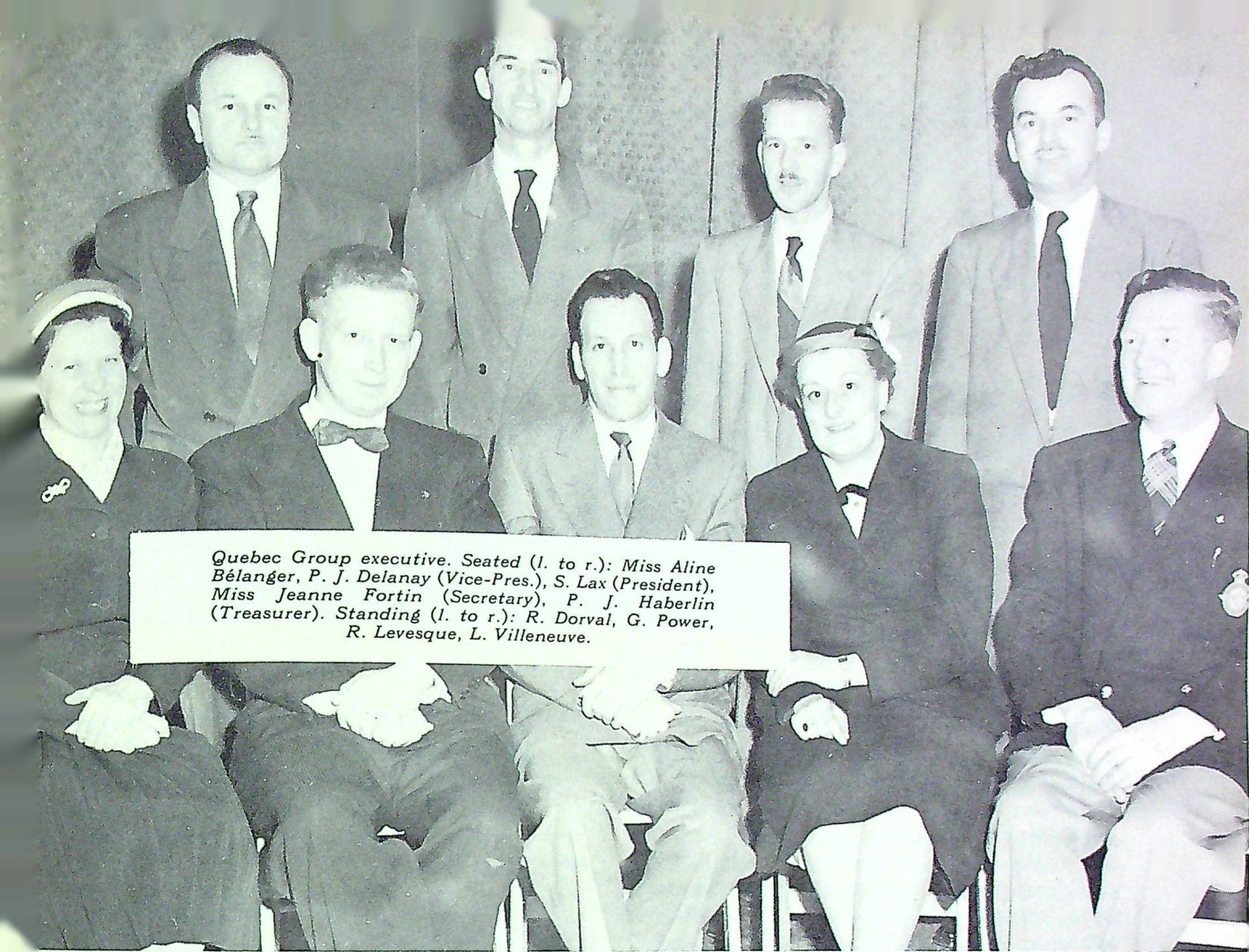


No. 702 (Lethbridge) Wing, Lethbridge

No. 702 Wing sponsored an international curling bonspiel, with rinks from American Air Force bases and from R.C.A.F. stations in Western Canada competing. The winning rink was from R.C.A.F. Station Penhold.

of a dinner and dance, and Air Vice-Marshal Brookes was the guest speaker. Over 100 persons attended, and the National President reports a very excellent meeting.

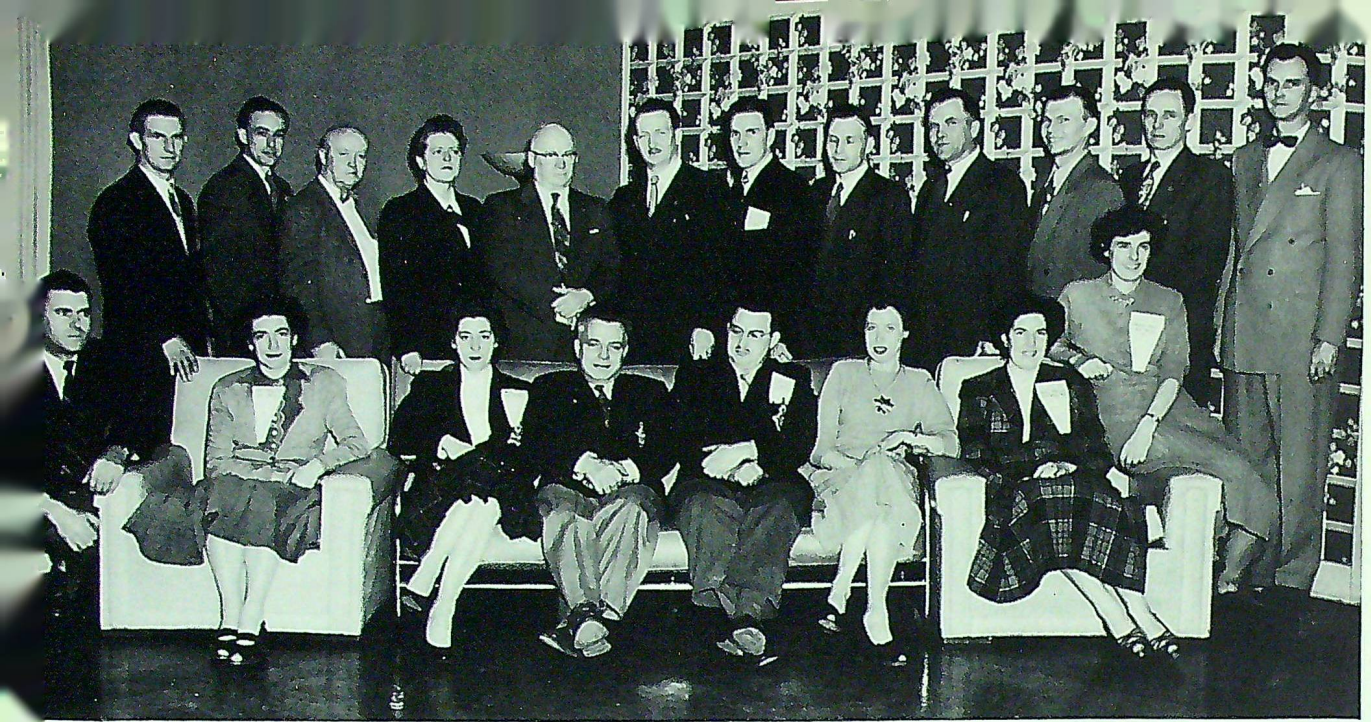
A. N. Shrive, president of the Sault Ste. Marie Wing, has rejoined the Air Force. He was succeeded in office by E. Walton.



Quebec Group executive. Seated (l. to r.): Miss Aline Bélanger, P. J. Delanay (Vice-Pres.), S. Lax (President), Miss Jeanne Fortin (Secretary), P. J. Haberlin (Treasurer). Standing (l. to r.): R. Dorval, G. Power, R. Levesque, L. Villeneuve.



No. 429 (Elgin) Wing, St. Thomas. Left to right: J. Jury (Treasurer), J. Magnusson (2nd Vice-President), A. Wicks (President), K. Comfort, D. McCartney (1st Vice Pres.), W. Allen (Corresponding Secretary), L. Dunlop (Recording Secretary).



Saskatchewan Group delegates at annual convention.

No. 200 (Summerside) Wing, Summerside

At the annual meeting of No. 200 Wing, Dr. Gallant was elected president for the ensuing year. This Wing is very active in the sponsorship of the Air Cadet squadron. They have 100 air cadets, and are in the process of forming a bugle band. In reporting on the Wing activities during his year of office, the retiring president, J. Mungall, paid tribute to the excellent co-operation received by the Wing from the Commanding Officer and staff of R.C.A.F. Station Summerside.

TO SPONSOR GOLF TOURNAMENT

On Saturday and Sunday, July 10th and 11th, the Alberta Group of the Association is sponsoring its annual golf tournament, which is open to all R.C.A.F. units and Association Wings in Western Canada, and also U.S.A.A.F. formations. The tournament will be held at the Red Deer Golf and Country Club, and individual and team prizes, as well as a Grand Challenge Cup, will go to the winners. The Alberta Group is to be congratulated on this effort and we wish the tournament the best of luck.

GROUP CONVENTIONS

The newly elected Group executive for British Columbia is as follows:

- | | |
|--------------------------|---|
| Immediate Past President | — Ivan B. Quinn |
| President | — G. A. Brebner |
| Vice-President | — Garfield Cross |
| Secretary | — Mrs. Cherie Hall |
| Treasurer | — Bruce Campbell |
| Directors | — A. W. Carter
— John Stewart
— Cameron Maddin
— Derek Inman |

The executives of the other Groups were published in the April issue of "The Roundel".

MARCH RECRUITING

The following are the results of recruiting by Association Wings for the month of March:

	Contacts	Enrolments
No. 416 Kingston	16	4
No. 401 Kirkland Lake	1	0
No. 402 Sudbury	1	1
No. 700 Edmonton	3	0
No. 703 Red Deer	3	1
	24	6

NO. 900 (ARUA) WING

30 May 1954.

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

Dear Sir:

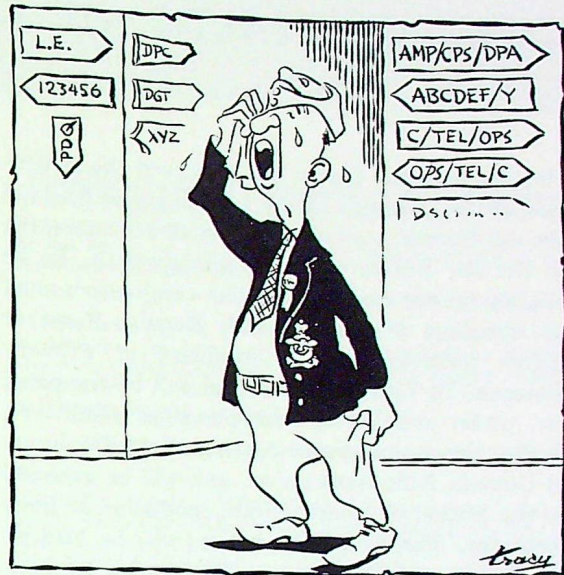
All of us at No. 900 (Ardua) Wing are looking forward to our next meeting, at which we expect

to hear a report from our delegate who attended the recent National Convention in Ottawa. Just from hearsay it seems that he gained a good deal from the sessions, and also had a fine time into the bargain during his visit to the Capital City.

He had an unfortunate experience last year. Our delegate was well briefed on many matters which we wanted to have discussed on the floor of the convention. He was laden down with rules and regulations, amendments, criticisms, propositions, suggestions — all for the benefit of the R.C.A.F.A. — and we expected him to give a good account of himself. However, for reasons which I will run over briefly, he was not able to do so. It was not really through any fault of his own, but rather because of a combination of unfortunate circumstances.

It seems that all went well on the first morning of the convention, but, what with the opening ceremonies and all, our delegate did not have a suitable opportunity of getting in what he had to say. He conserved his strength for the afternoon, when he planned to take over. Before setting out for the meeting, he had a hurried lunch and went to Air Force Headquarters to look up a chap who had been with him on the squadron during the war. Now this might seem like a simple enough thing to do, but apparently there is more to looking up a chap at A.F.H.Q. than meets the eye. In short, our lad got lost.

He said he began his quest and walked for approximately three quarters of an hour through endless corridors, passageways, chasms, and up and down staircases, only to find himself right back at the doorway from which he had started. He got his bearings again and set out full of confidence. Believe it or not, but he made another complete circuit and arrived back at his starting-point, although it had taken him a bit longer the second time as he was beginning to tire. Thoroughly disgusted, he charged out into the sunlight. Unfortunately, the exit was just across the street from a place of refreshment, into which he popped to calm his nerves. After such a trying experience they needed considerable soothing, and by the time he arrived at the convention hall the afternoon session was just about to break up. Our



delegate had also forgotten his R.C.A.F.A. cap while steadying himself, and he had to go back to retrieve it.

He had a good time at the convention dinner. So good in fact that the sun was peeking over the Gatineau hills by the time he got back to his hotel. He set his alarm but did not pull out the gadget to make it work and he only woke in time for lunch.

Just as he was about to set off for the afternoon session, he ran into the M.P. from our constituency. Now there are several things our town needs and our delegate began to lobby right there and then for a new airport, quarters for our Wing, a new post office, a new railroad station, new hospitals and schools, and several other things. Naturally a good deal of time was spent in discussion and our delegate finally arrived at the convention just in time to join in the singing of God Save the Queen.

Yours, with Air Power,

Corresponding Secretary,
No. 900 (Ardua) Wing.



COMMONWEALTH AIR FORCES SHOOTING-MEDAL

Her Majesty the Queen has approved the institution of the "Queen's Medal for Champion Shots of the Air Forces", to encourage small-arms shooting in the Air Forces of the Commonwealth. To be eligible for the medal, Canadian competitors must be members of the R.C.A.F. Regular Force or active members of the Auxiliary or Primary Reserve. In Canada the medal will be competed for, under small-arms championships conditions, during the annual prize meeting of the Dominion of Canada Rifle Association, and will be awarded to the winner of a competition conducted at these meetings. The first competition will be held at the Connaught Rifle Ranges, Ottawa, on Wednesday, 11 August 1954.

The participants will be required to use Service rifles without slings and will fire a total of 40

rounds. The shoot will be conducted in 4 phases: deliberate fire at 600 yards, fire with movement at distances ranging from 100 yards to 600 yards, rapid fire at 300 yards, and snaphooting at 300 yards.

Made of silver, the medal is circular in form and bears the crowned head of the Sovereign on one side and on the other the inscription "The Queen's Medal for Champion Shots of the Air Forces", together with a representation of Hermes mounted on a hawk in flight and throwing a javelin. The recipient's name will be engraved on the rim of the medal. The ribbon accompanying the award is of dark crimson with three vertical stripes of dark blue, light blue, and dark blue, respectively, each an eighth of an inch in width, at either edge.

NEW LIGHT ON HISTORY

Underneath the photograph of a modelled head of Homo Neanderthalensis the following caption appears in the weekly magazine section of a Toronto newspaper:

"The bust with retreating forehead and jaw is a representation of Neanderthal man, predecessor of true man, but far above any parent ape stocks. Dutch professor Koenigswald now thinks the ape-man arose at least 1,000 years ago."

Letters to the Editor ★ ★ ★

ABRACADABRA

Dear Sir:

Sgt. Shatterproof's column in "The Roundel" for March indicates that the honourable Sergeant should turn again to his "Grimoire of Black Magic" and become a trifle more familiar with the powers of the Hand of Glory. The "Hand" was actually a candle formed by moulding the collected fat from the fried right hand of a gibbeted man around a not-to-be-mentioned-here sort of wick. Its one and only power was the ability to paralyze all but the person who set it burning if the naked flame was in their sight.

I hope that in the future Shatterproof will turn any matters containing such delicate information over to the technical branch for screening before casting what I consider to be a slur on his ancestor's ability. Poor old Goody!

Flying Officer M. N. Young,
No. 15 "X" Depot.

(Having forwarded the above letter to the old wardog, we received the following reply: "Far be it from me, Sir — a simple airman unversed in the arcane sciences — to bandy spells with a warlock of such erudition as Flying Officer Young. None the less, I suspect that my ancestress' deviation from the normal procedure may have been attributable to her reluctance to use the type of wick of which he speaks. Modesty and consideration for others were her watchwords. Legend has it, indeed, that she never flew over the local monastery unless she was wearing slacks. — Incidentally, Sir, am I indebted to Flying Officer Young's telekinetic prowess for the small green frog whom I found treading beer amid the foam of my pre-prandial yesterday evening? Sgt. Highball, my only neighbour at the bar, denied any complicity in the matter."—EDITOR.)

ADVENTURE IN ENGLISH

Dear Sir:

The following is an actual extract from a Daily Routine Order dated 7 Apr.:

6 DISCIPLINE Greatcoats, Raincoats — Optional wearing of

Effective Monday 12 Apr 54 personnel have the option of wearing greatcoats or raincoats or may dispense with the wearing of same.

Personnel other than officers and WO1s wearing other than greatcoats are not to wear gloves.

Sqn. Ldr. (name withheld)

"SELLING THE R.C.A.F."

Dear Sir:

I thoroughly enjoy each issue of "The Roundel", but I would like to suggest that more space be given to the activities of the airmen, mainly corporals and aircraftmen.

I would like to read about some of the activities of our hard-working airmen, without whose support and enthusiasm the Air Force would not be the fine Service it is. I remember how in England the mechanics and technicians worked through and cold drizzling rain in order that the Halifaxes could fly, and somehow I never felt that they were given the credit they deserved.

Perhaps you could run articles on such matters as guidance for newly-enlisted airmen to help them along in their Air Force careers. I am sure there are many who have not read the fine article by Cpl. V. V. Kellar, "Selling the R.C.A.F." Could you not reprint it?

Flying Officer J. Gendron.

(We thank Flying Officer Gendron for his letter and suggestions. We have written to Flying Officer Kellar, who is now the Accounts Officer at No. 2 Supply Depot, to ask him if he would bring his article up to date for publication in our next issue.—EDITOR.)

NO HORNPIPES FOR WINNIPEG

Dear Sir:

Your March issue of "The Roundel" carries a most comprehensive treatise on Telecommunications under the heading of "The Party Line". Publication of this article in the pages of "The Roundel" is certain to promote better understanding and appreciation of the important rôles that have been assigned to the Telecommunications people of the R.C.A.F.

We of the Telecom Section at R.C.A.F. Station Winnipeg, however, have been faced with a bit of a poser. Either we must discredit your very admirable magazine or we must accept your word as gospel and learn to do the hornpipe.

On page 18 you credit the manning of the J.T.R.C. at Winnipeg to the Navy. Much as we realize that the Navy, or any other Service for that matter, would be proud to man so efficient a link as the J.T.R.C., we hardly expected you, our friend, to forsake us.

Flt. Lt. D. V. Kyle,
R.C.A.F. Station Winnipeg.

P.S. After having her wrist slapped at least ten times for spelling "teletype" as "teletype", our typist now insists that since you had the Service wrong, the spelling must also be wrong. She persists in spelling it "teletype". What shall I do?

("The Roundel" blushes beneath Flt. Lt. Kyle's deserved rebuke. The Winnipeg J.T.R.C. is manned by the R.C.A.F. As regards "teletype", though the word is etymologically inconsistent, it should be used in preference to "teletype" when referring to teleprinting equipment in general. "Teletype" is a trade name.—EDITOR.)

NO. 6 S.F.T.S. REUNION

Dear Sir:

Each year since 1945, former members of No. 6 S.F.T.S., Dunnville, have been holding an annual reunion and banquet.

The next celebration will be held at the Dunnville Golf and Country Club, commencing at 10.00 hours on Saturday, September 25th. Advance notice and D.R.O.s will be forwarded to all on our current mailing list, and other names should be sent to Mr. V. B. Collins, Box 868, Dunnville, Ontario.

It is our belief that No. 6 is the only war-time training school that has been holding annual reunions for its former members.

Frank Scholfield,
Box 814, Dunnville, Ont.



MESSAGE CENTRES AND THE N.D.C.S.

Dear Sir:

Part one of "Telecommunications in the R.C.A.F." states: "Message Centres are NOT part of the N.D.C.S."

This quotation may cause considerable controversy and raising of eyebrows by Telecom personnel. I firmly believe that Message Centres are part of the N.D.C.S. — i.e. traffic handled at R.C.A.F. Station Saskatoon is tri-Service. Also, the syllabus of instruction at 1 R. & C.S. (if my memory has not failed) refers to Message Centres as part of the N.D.C.S.

Apart from the above, no truer words were ever published than: "Staff types who automatically classify as SECRET the date of St. Swithins Sunday School Picnic".

Congratulations to staff of "The Roundel" for their help in keeping up good relationships and *esprit de corps* in the Air Force.

Sgt. J. Sentes,
R.C.A.F. Station Saskatoon.

(We are informed by the Directorate of Telecom Engineering that Wing Cdr. Gooderham's statement is substantially correct. "The requirement of Message Centres is the responsibility of the individual Service. The fact that some stations handle traffic for other Services is based on mutual agreements between the Services concerned".—EDITOR.)

REVERSAL OF CONTROLS

("The Roundel" was guilty of great carelessness in its reply to Mr. Phillips' letter on the above subject in the March issue, and we ask him to accept our apologies for the apparently cavalier treatment of his question. By some mischance, we printed only the first paragraph of the Director of Development's answer to it. Flt. Lt. Moran, however, has answered Mr. Phillips' question even more fully in the letter which follows.—EDITOR.)

Dear Sir:

Mr. Edward Phillips' letter in your March 1954 issue requests an explanation of whether or not control reversal occurs at the speed of sound. He quotes one article which states that "no reversal of control is found on wings or control surfaces at supersonic speeds, providing they are sufficiently rigid and thin", and another which states that "the controls reverse themselves at that speed" ("that speed" meaning Mach 1.0, or the speed of sound). The present letter attempts to answer Mr. Phillips' question.

It must be accepted first that an aircraft is an "elastic" structure: when external loads are applied to it, it changes shape. Secondly, aerodynamic ("air") loads, such as lift and

drag, vary as the square of the velocity. Since these air loads act upon the aircraft structure, the aircraft deforms under them. But since the loads are different at each speed, then any aircraft has a different shape at each speed at which it flies. This answers one of Mr. Phillips' queries. The spar or spars in any aircraft, the Starfire included, bend under these air loads. How far a wing, for instance, bends — or twists — under these air loads, depends on the stiffness of the wing.

When an aileron on a wing, or an elevator on a tailplane, is deflected downward by the pilot, an "up-force" is felt on the structure of the trailing edge. Remember that this force is greater at higher speeds. To simplify the explanation, this has the effect of raising the trailing edge in relation to the leading edge, and the relative amount of movement is determined by the applied force (which is greater at greater speeds), and the "stiffness" or rigidity of the wing, which is the same at all speeds. A flexible, or non-rigid, wing will twist farther than a stiff wing if equal loads are applied. While the downward-deflected aileron tends to increase the lift, the downward rotation of the leading edge relative to the trailing edge tends to decrease the lift. When a speed known as the "control reversal speed" is reached, the effects are exactly balanced. At any higher speed, the opposing effect of the twisting structure ahead of the control surface becomes greater than the effect of the deflected control surface, and control reversal results.

It is coincidence only if this reversal speed occurs at Mach unity. High-speed (transonic) aircraft require very thin wings, which tend to be more flexible, and so this problem becomes significant on these aircraft. Perhaps this is why the confusion has arisen.

Flt. Lt. J. E. Moran,
Royal Military College.

Answers to "What's the Score?"

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



Those who know do not talk; those who talk do not know. (Turkish proverb).

THE R.A.F. IN THE SECOND WORLD WAR

The official history of the Royal Air Force in the Second World War will be told in three volumes published by Her Majesty's Stationery Office, under the joint authorship of Denis Richards and the late Hilary St. George Saunders. The first two volumes are now available; the third will appear this summer.

Volume I, by Mr. Richards, describes "The Fight at Odds: 1939-1941." After outlining the awakening to the Nazi threat and the last-minute pre-war build-up of the R.A.F., the volume of Britain and the "Blitz"; and the early operations of Coastal and Bomber Commands. The story then moves to the Middle East to follow the ebb and flow of battle across the Western Desert; the loss of Greece and Crete; and operations in Iraq and Syria.

Volume II continues the history through the next two years when "The Fight Avails". From the Far East — the fall of Singapore, Sumatra and Burma — the narrative returns to the West, to Coastal Command's battle over the sea and Bomber Command's battle over the German Reich; and again to the Middle East to see the tide turn at Alamein and sweep westward across North Africa, into Sicily, and up the Italian peninsula to Rome.

Copies may be obtained from the United Kingdom Information Office (275 Albert Street, Ottawa, Ontario) at \$3.15 per volume, post-paid.

