

# The **ROUNDDEL**



Vol. 9, No. 9  
NOVEMBER 1957



**ROYAL CANADIAN AIR FORCE**

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**THIS MONTH'S COVER**



Her Majesty Queen Elizabeth the Second, escorted by Flight Lieutenant V. Burdett, D.F.M., inspects the Royal Guard of Honour on her arrival at R.C.A.F. Station Uplands, on 12 October 1957.

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# The Royal Visit

A LITTLE before half past four, on the afternoon of 12 October 1957, a B.O.A.C. aircraft landed at R.C.A.F. Station Uplands. As its wheels touched down on the runway, the Royal Standard was unfurled and the first dull boom of a twenty-one gun salute rolled out over the silently waiting thousands. The aircraft came to a stop, a ramp was wheeled into position against the fuselage, and a slight figure in red descended the steps while the Coronation Trumpeters of the Royal Canadian Air Force heralded her arrival. Her Majesty Queen Elizabeth the Second was once again on the soil of Canada, which she had last seen, as Princess Elizabeth, in 1951.

After her reception by His Excellency the Governor General, the Prime Minister and Mrs. Diefenbaker, Her Majesty received a Royal Salute from the R.C.A.F.'s hundred-man Royal Guard of Honour and the Central Band. Presently, the brief arrival-ceremony over, Queen Elizabeth and His Royal Highness the Prince Philip left the station and started out on their slow 14-mile drive, through thousands of flag-waving spectators, to Government House.



*Her Majesty and His Excellency the Governor-General.*

On the following morning (Thanksgiving Sunday), the veterans of three wars and an estimated crowd of 10,000 people joined the Royal Visitors at the National War Memorial to pay homage to Canada's dead.

In a solemn ceremony, Queen Elizabeth, assisted by Prince Philip, placed a wreath at the foot of the memorial which had been unveiled by her father, King George VI, in 1939. Attached to the wreath by a

blue, red, and gold ribbon, was a card, edged in black, bearing the inscription:

*"From Her Majesty Queen Elizabeth II and His Royal Highness, the Prince Philip, Duke of Edinburgh".*

Veterans lined both sides and the rear of the memorial, and flanking the steps was the Colour Party of Legionnaires. Facing the memorial, in a special place of honour, were crippled veterans, war widows, and Silver Cross Mothers.



*The Royal Salute.*

*At the National War Memorial (Newton photo.)*



As the last notes of Reveille faded away and the dipped flags were slowly raised, sentries, picked from the three Services, presented arms, and the Royal Couple carried out their review of the veterans while the band of the Royal Canadian Mounted Police played "Soldiers of the Queen".

From the War Memorial, Her Majesty and the Duke proceeded to the 125-year-old Christ Church Cathedral for morning service. In welcoming Queen Elizabeth to the Cathedral, the Very Reverend J. O. Anderson, Dean of Ottawa and rector of the Cathedral, recalled that it was here that her great-grandfather, Edward VII, had worshipped while visiting Canada as the Prince of Wales. Adding a military touch to the service were the flags which were hung in the Cathedral — the ensigns of the Royal Canadian Navy and the R.C.A.F., and the colours of the Governor-General's Foot Guards. The second lesson, the parable of the talents, was read by His Royal Highness.

On Sunday evening the Queen made her first live T.V. broadcast. Speaking both in English and French, Her Majesty said that she felt proud and happy to be Queen of Canada and that she hoped to make more visits to this country



*Planting a maple tree at Government House.*

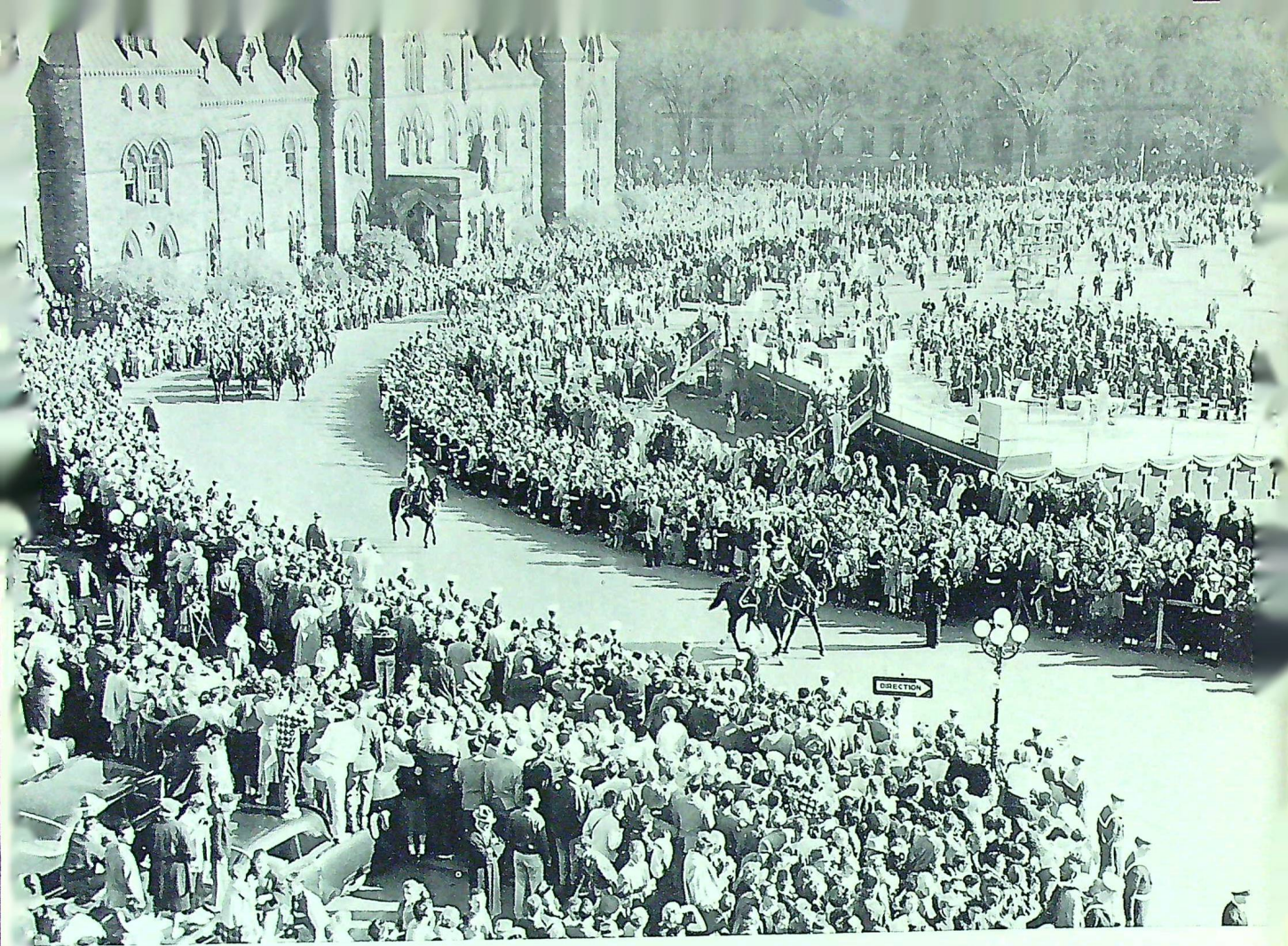
and to bring her children with her.

The climax of the Royal Visit was, of course, the Queen's opening of her Canadian Parliament, which made her the first Sovereign to officiate at Parliament's opening and the second to be present during a parliamentary session. Perhaps of greater importance than any historic significance it may have, however, is the consideration that this act of Her Majesty, who is the symbolic link that binds together nine sovereign nations and a quarter of the world's population, has established a clearer understanding of the reality and meaning of the Monarchy.

The pomp and pageantry of state occasions were very much in evidence as the Queen and the Prince arrived at Parliament Hill. When the black and gold state carriage, accompanied by an R.C.M.P. mounted escort, drove up to Parliament Hill, it was greeted by a 21-gun salute. Before entering the Parliament Buildings, the Queen mounted a dais at the entrance, and the Royal Guard of Honour from the Canadian Guards presented arms while their band played "God Save the Queen".

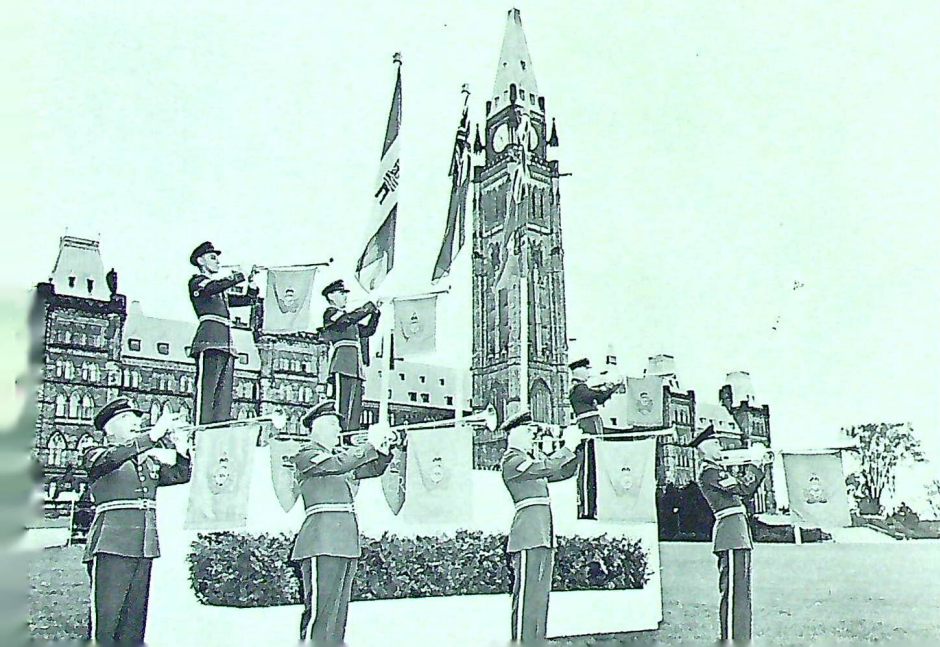
*The Queen leaves the Cathedral. (Newton photo.)*





*Approaching Parliament Hill. (Dominion-Wide photo.)*

*The R.C.A.F.'s Coronation Trumpeters.*

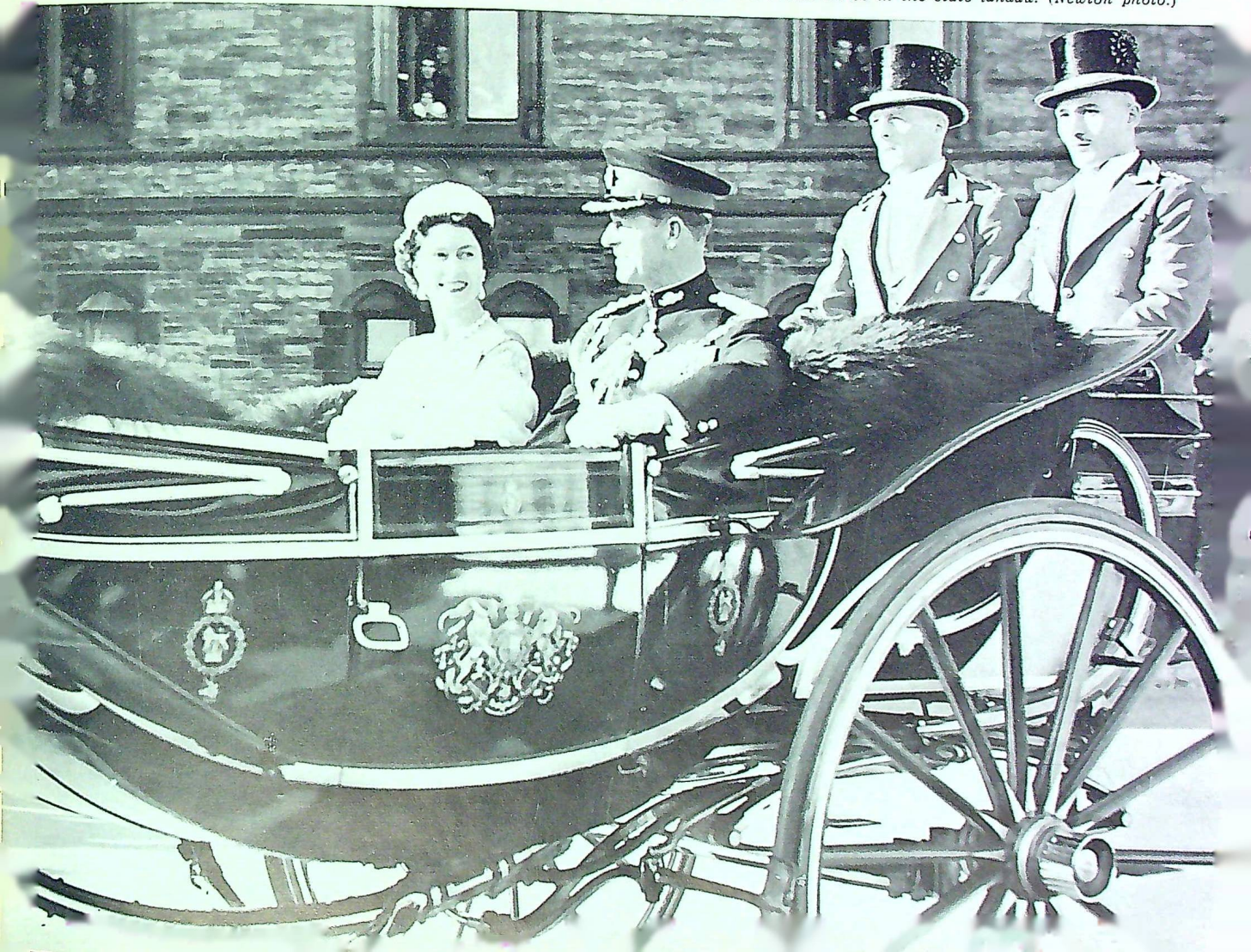


Earlier that day Queen Elizabeth had met with the Cabinet and discussed with her ministers the Speech from the Throne. This was the first time that a meeting of the Canadian Privy Council had ever been attended by a Sovereign. As a sequel to this extraordinary session, Canada bestowed upon Prince Philip its highest honour by appointing him to the Canadian Privy Council. Later on the same day a further honour went to him when he received a diploma making him an Honorary Fellow of the Royal Society of Canada. The diploma, conferred in recognition of his en-



*Her Majesty and her Ministers. (Dominion-Wide photo.)*

*Her Majesty and the Prince arrive in the state landau. (Newton photo.)*

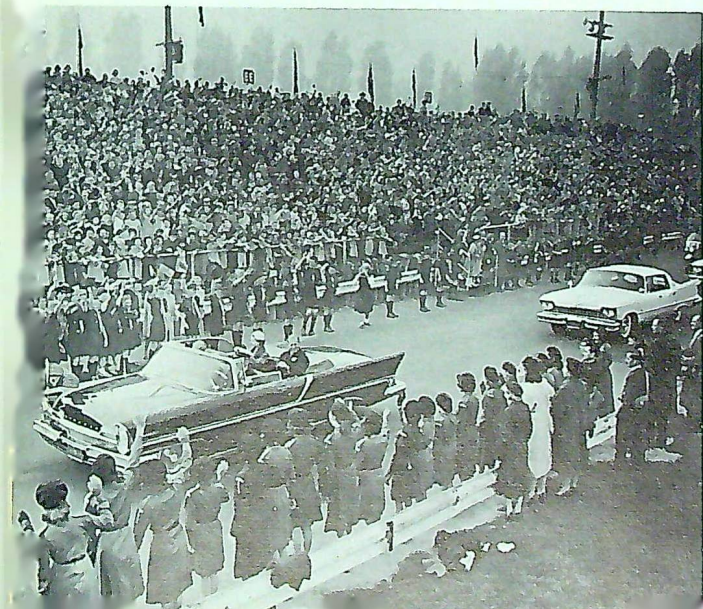




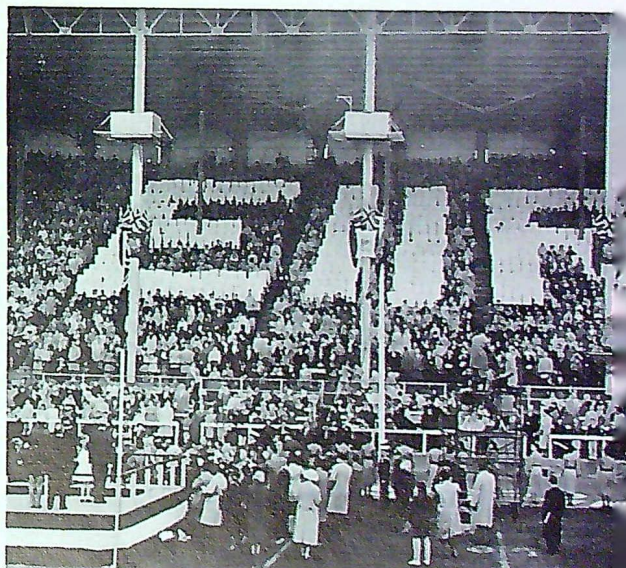


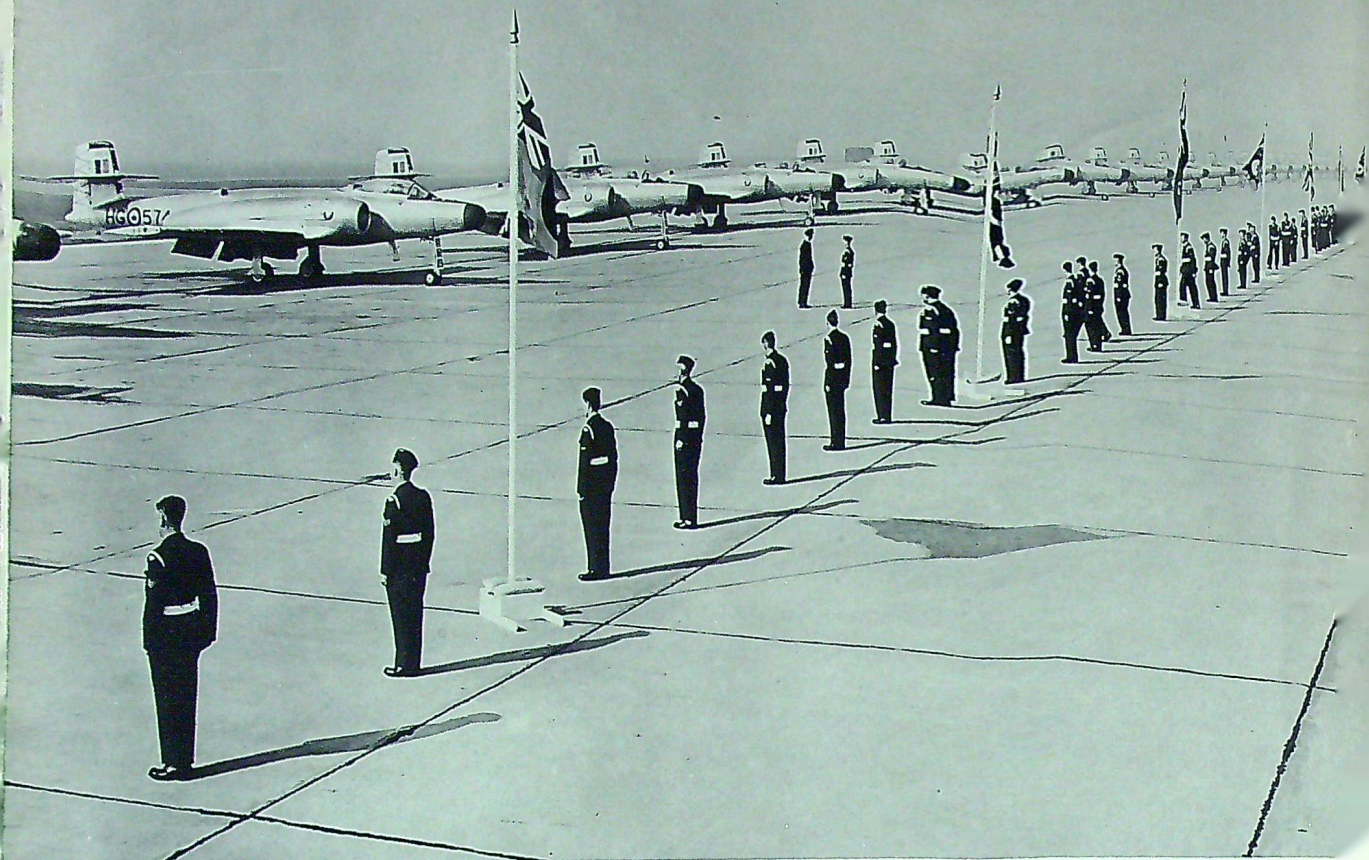
*Opening the Queensway. (Dominion-Wide photo.)*

*The final day was children's day. (Newton photo.)*



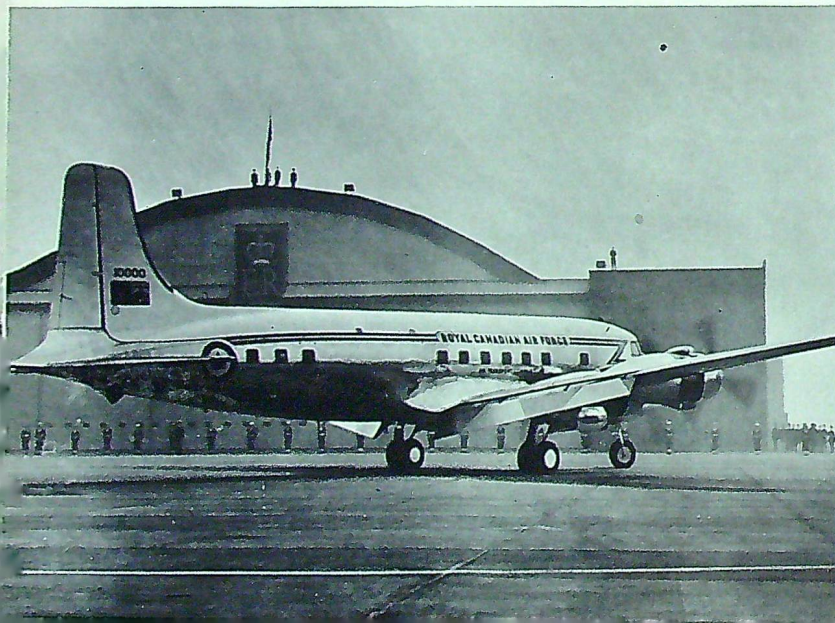
*The Royal cipher. (Newton photo.)*



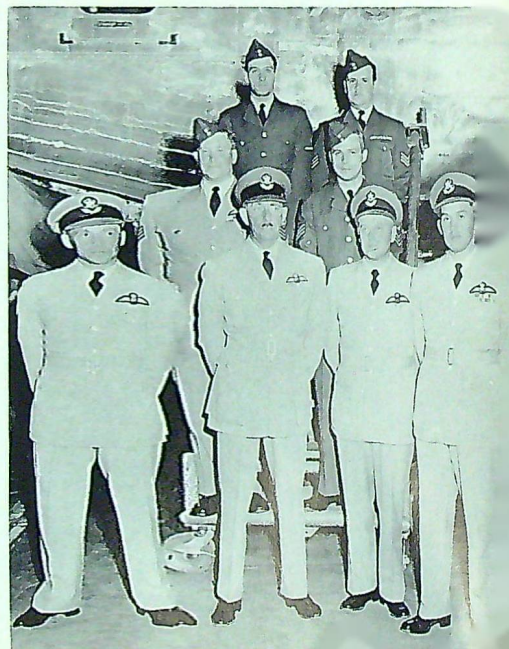


*Jets from four squadrons lined up for Her Majesty's departure.*

*The C-5 ...*



*... and its crew.*



wa's history. When eventually the Queen and the Duke left the scene of the ceremony to return to Government House, they were followed by the skirl of the Cameron Highlanders' pipes playing "Will ye no come back again?"

In the evening the Prime Minister and Mrs. Diefenbaker entertained the Royal Couple at a private dinner at his residence. Mr. Diefenbaker also presented the Queen with Canada's gift in commemoration of her visit — a painting of the Parliament Buildings in an autumn setting.

The full day ended with a reception for the Royal Visitors held by the Government of Canada at the Château Laurier. In what is believed to be one of the largest receptions since Queen Elizabeth's Coronation in 1953, some 1400 people, including ten Indians, filed through the main ballroom and adjoining banquet-hall to shake hands with Her Majesty and Prince Phillip.

The fifth, and final, day of the Royal Visit was children's day, and, as the Royal Couple drove into Lansdowne Park, 15,000 children raised their voices in a deafening welcome. When at last it was possible for her to speak, the Queen thanked the children for their reception. "Your cheers", she said, "warmed our hearts and made us feel much at home today." The children replied by singing "God Save the Queen", after which a picked group of the youngsters, carrying large white cardboard squares, stood up and formed the Royal cipher, E II R. The Queen and the Duke, as they left the park, drove slowly around the oval track, which was lined by hundreds of boy scouts, girl guides, St. John Ambulance nursing cadets, sea cadets, army cadets, and air cadets.

From Lansdowne Park, Her Majesty and the Prince drove to R.C.A.F. Station Uplands to take their leave. The R.C.N. was in



*Godspeed and Happy Landings!*

charge of the departure ceremony, but top-ranking officers of the other two Services, as well as representatives of the diplomatic corps and the federal government, were also present.

In a final informal gesture, Queen Elizabeth declined the use of the red carpet and walked across the bare part of the tarmac to a small reception line waiting for her at the door of the R.C.A.F.'s C-5 that was to take her on to the United States. Accompanied by her hus-

band, she mounted the ramp and stood in the aircraft's doorway for a full minute to acknowledge her subjects' farewell. Then the door closed; and, as the plane gathered speed and took off, the roar of twenty-one guns bade its Royal passengers Godspeed and Happy Landings.



# SGT. SHATTERPROOF BENDS THE KNEE

Sir:

Rarely, when royal events were toward, has a Shatterproof not been present amid the courtly throng.

Was it not Ur Shatterproof of the Chaldees who handled the niceties of the Queen of Sheba's visit to King Solomon? Again, when the first Elizabeth expressed her doubts about the growing might of Spain, who was it that said: "Madam, come the world against her, England yet shall stand"? It was not, as is commonly thought, Shakespeare: it was Bacon Shatterproof, the Swan of Wapping Stairs. And finally, Sir, I would point out that Queen Victoria's failure to be

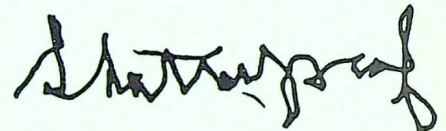
amused stemmed entirely from a rather ill-timed attempt by Professor Darwin Shatterproof to prove, on *prima facie* evidence, an ancestral relationship between one of Canada's Fathers of Confederation and a recent arrival at the London Zoo, a mandrill of unusually splendid coloration.

Such being the heritage of my House, can we wonder that the boys in the field are filled with a restlessness to which even the post-prandial can give no quietus? "Her Majesty and The Prince Philip", they tell each other, "are come and gone. But where was the old war-dog, his sword a-clank and his

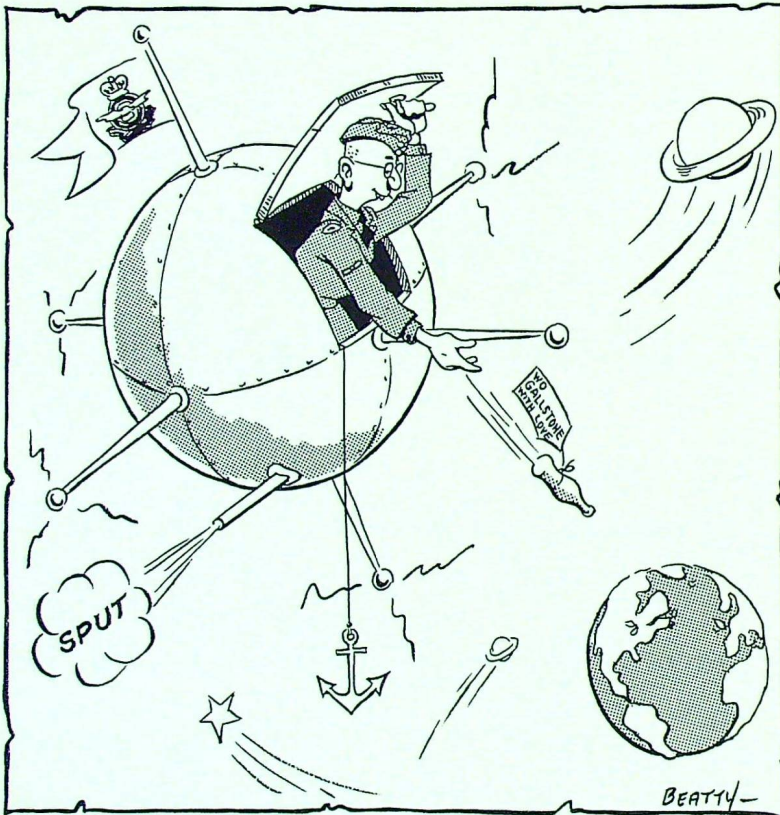
harness chiming to bend the knee to our liege lady in the thunderous name of the forty-one thousand Canadian airmen who know her for their Queen?"

Sir, the answer is not far to seek. The last of the Shatterproofs was in durance vile, confined to camp by extra duties. Carried away, perhaps, by memories of the mighty powers that once were his,\* he had been fired by the same generous spirit that inspired the amnesty accorded to some 300 guests in our country's prisons. I had, in a word, taken it upon myself to excuse L.A.C. Bladder from all duties so that he might complete his entry for the essay competition recently sponsored by the Soviet Union on the subject of *Sputnik*. Bladder, with a devotion to ballistics that the dedicated scientists of our Defence Research Board might well envy, wishes to be the first mammal to hit Warrant Officer Gallstone with a molten pop-bottle a year or so after launching it.

I trust, Sir, that you will make it plain to the boys in the field why Shatterproof failed them. I am, however, confident that, whether or not the November issue of "The Roundel" ever comes beneath Her Majesty's eyes, she is well aware that Canada's far-scattered airmen are no less her liege men than the most dogged warriors who ever fought their way through protocol to look more closely upon her lovely face.



\* We presume that Sgt. Shatterproof refers here to those two periods during which he served Her Majesty as a W.O.1 and to the three in which he wore the crown and hooks of a flight sergeant.



# "BATCH"

BY SQUADRON LEADER N. W. EMMOTT, D.F.C.

*(Some of the anecdotes which the writer relates of the late Flight Lieutenant Batchelor may be a bit esoteric for non-navigational readers, but Batch is still very much worth meeting.—Editor.)*

THERE are gardeners who have green thumbs, and musicians who have only to sit down at a piano for its tone to become sweeter. There have been air force navigators, too, who have been blessed with the same mysterious blend of judgment, skill, and knowledge — helped out, perhaps, with a dash of homing-pigeon blood. Among their number possibly no one had it in a greater degree than Flight Lieutenant A. W. Batchelor, D.F.C.

His Christian names were Alexander William, but nobody ever called him anything but "Batch". He was quite tall, rather weedy, undistinguished of feature, and with an unsoldierly slack-limbed bearing which resulted from a lack of physical co-ordination that rendered him totally incapable even of catching a ball. His most noticeable characteristic, perhaps, was the evil-smelling pipe that he carried with him everywhere.

He was born in Victoria, B.C., in 1920. In 1939, just before the war broke out, he went to England to join the Royal Air Force as a ground tradesman. His first job, and the one he always maintained was the best he ever had, was taking charge of the tea-urn in an air-men's mess. Early in 1940, however, Batch was given the opportunity to remuster to aircrew, and he began his training as an observer.

He took his training in *Ansons*, using four-miles-to-the-inch maps — a scale so large that the student navigator scarcely had time to unfold a sheet before even the slow progress of an *Anson* had taken him on to the next one. As a result, the inside of the aircraft very

quickly became littered with map sheets.

After he had graduated as a sergeant, with his bright new "Flying O" on his chest, he was sent to a *Whitley* squadron. The *Whitley* was an ancient monoplane that looked as if it was made from two-by-fours. Its turn of speed was such that, on one occasion when Batch saw an *Anson* approaching, he altered heading by 90 degrees so that the *Anson* would not see how slow he was.

His first operational trip was over Germany. It was made in company with a squadron leader — an astronomical rank in those days. Batch navigated the aircraft to the last leg before the final run-in, and went down into the nose of the *Whitley* to check the bomb-sight. On and on they flew, Batch desperately searching his topographical maps and the ground for something that looked familiar. Nothing appeared until suddenly lights showed up ahead of them.

Now, whatever else one might see in Germany during the war, street lights were not among them. Batch told the pilot to steer due west until the situation cleared up a little, and they turned back toward the darkness. A flak battery obligingly fired at them, and Batch dropped his bombs on it. They kept on, with the fuel in their tanks dropping lower and lower. As the Continent faded away behind them, Batch and his crew checked their Mae Wests in preparation for the inevitable ditching. Then, unexpectedly, the English Coast showed up and they landed at the first aerodrome they saw. As they turned off the

runway at the end of the landing-run, both engines stopped for lack of fuel.

"I don't know what was wrong with that last course I gave you before we reached the target, Sir," Batch said. "060 seemed pretty good to me."

"060?" the pilot exclaimed. "I thought you said 160!" Then he grinned and stuck out his hand. "Wizard trip! Wizard trip! It was my fourth. On the first three I was shot down."

\* \* \*

Navigation in those days was a very approximate business. The aircraft seldom had the ceiling to climb above the clouds, and quite often they flew to the point where dead reckoning indicated that the target should be, dropped their bombs at their Estimated Time of Arrival, and came back again, all without benefit of any navigational fixes whatever. Needless to say, the results were usually terrible, but it was on one such trip that Batch demonstrated his uncanny sense of direction.

Returning from a raid during which he had no information at all other than two radio direction-finding position lines, he received a diversion to another base. He made the necessary alteration of course, and then, prompted by some inner voice, gave the order for another five degrees to starboard. The course brought the aircraft right over the station. Drawing to an inside straight is child's play compared to that!

Half way through his tour he was sent to Africa, to fly with the *Wellingtons* of the Desert Air Force. Before he left, he had his teeth checked over by a Service dentist, who pointed out that he needed quite a lot of work done, that it would be painful, and that, since Batch was aircrew, he would probably soon be killed anyway and all the work would be wasted. "Fair enough," said Batch, and left.

When he came back from the Middle East he could pull teeth out with his fingers.

In Africa he operated for a year against Rommel's forces, living in tents which he shared with uncounted flies and other insects, and eating bully beef mixed with sand. His method of operation in those cloudless latitudes was to read off from his astrograph the altitude of Polaris and then home down the position line, altering five degrees at a time until he got the star where he wanted it in the bubble of his sextant — which, by the way, was usually so clogged up with sand that it would take only single shots. Theoretically, his method, which is analogous to stepping into the batter's box and expecting to get a home run every time—is quite indefensible. For Batch it worked fine.

He came back to England, where he did an instructional tour at a bomber O.T.U. at Pershore. When that was over he went back on operations with a *Mosquito* Pathfinder Squadron. Many of his trips with it were for the purpose of target-marking by Oboe, a radio aid that involved flying on a steady heading over some enemy objective. In his spare time he bombed Berlin. On one occasion here he had his closest brush with death. Taking-off with a 4000-lb. bomb aboard, the young flight-sergeant pilot lost control of the *Mosquito*, which began to head toward the hangars. Four-thousand-pounders could not be made safe, and if the aircraft had hit the buildings, it would have blown up. Batch hopped out of his seat, reached over the pilot's shoulders, and pulled the aircraft off the ground. It thundered over the hangar with inches to spare. Batch relinquished control to the pilot, and they went on and bombed Berlin.

\* \* \*

When the war ended Batch was a squadron leader with a D.F.C. and bar. He left the R.A.F. and returned

to Victoria; then, in 1947, he joined the R.C.A.F., in which he was given the rank of flying officer. After a short stint in the non-public accounts office at Patricia Bay, he went to a "K" (communication) flight at Edmonton. Here he was introduced to the glories of arctic navigation.

In the Arctic, Batch was in his element. Scorning the special log-form devised for gyro-navigation, he entered in his main log all the extra work required by the technique of steering without a magnetic compass. He was well equipped, having a 30-year-old wrist-watch with a stop mechanism registering half-seconds. This he used to time the passage of objects through a drift-recorder in order to obtain groundspeeds. The astronomical navigation tables used by most of the rest of the Air Force were too simple for him; he preferred a copy of Agerton's Tables, which he carried in his back pocket. Likewise beneath him was the measuring of tracks and distances on a map: he calculated them from his Agerton.

He flew all over the Arctic one summer with Squadron Leader Bill Clark, who was not noted as a particularly easy man to please. The latter's comment on his navigator was simple: "The best in the business."

On one trip from Churchill to Ottawa, the only map Batch had was a used meteorological chart that reached only halfway to Ottawa. He climbed over the bags of potatoes and tool-boxes in the *Canso*, and set to work. Having previously worked out his great-circle track and distance by Agerton's Tables, he converted them to rhumb-line values by adding five degrees to one and twenty miles to the other. Then, calculating the wind by drifts and groundspeeds obtained with the help of his ancient stop-watch, he kept a track-plot. After a couple of hours he ran into cloud and seized the op-

portunity to smoke his well-aged pipe. He kept one eye open, however, and, when the cloud-type changed, he noted the time in order to decide when to stop using the last wind he had found, and to start using the new one he would get when the ground was visible again.

The meteorological chart did not cover the whole distance to Ottawa, so Batch took a piece of chalk and drew a line on the side of the aircraft to represent the distance. Every twenty minutes he calculated how far he had gone, and with a nail he scratched out part of the line. Then, with a pencil — he always broke his pencils in half so that he would have twice as many — he entered up his log.

When his E.T.A. was up, he should have been, according to his calculations, over the airport. He wasn't; he was over the Parliament Buildings. An American officer, with him on the trip, said in the bar that night: "We're here, because we're drinking — but I still don't believe it."

It was while he was in Edmonton that he entered a room in which one of his fellow navigators was taking practice sights on the sun with his sextant. Batch lit his pipe, and stood the burned match on the window-sill. From the length of the shadow he estimated the altitude of the sun. When he worked out his "sight", his position line was two miles closer than the one the other man had measured with his sextant.

In 1949 he went to Summerside to take the Staff Navigation Instructors' Course. Flying with another navigator, he asked for a pinpoint. The weather was foggy, and all the information he could be given was that he had just crossed a coastline. He used this as a pinpoint by estimating where he had crossed the coast, found a wind at 9000 feet, estimated what it would be at 4000 feet, and flew directly

over base perfectly on E.T.A.

\* \* \*

In 1951 Batch was sent to England on an exchange posting. Early

in the following year he decided to take a flight that was going to Gibraltar, so that he could buy his wife some stockings. Two cadets were navigating. The 'plane hit a

mountain in France, and all on board were killed.

Batch, the best natural navigator I ever knew, lies buried in a French churchyard.

## St. Hubert's Riflemen

SHOWN here are the members of the five-man team, representing R.C.A.F. Station St. Hubert, which took part in the 76th Annual Prize Meet of the Province of Quebec Rifle Association from the 3rd to the 7th of August. With them are Sergeant M. Susick (a former member of the St. Hubert Rifle Association who is now stationed at Greenwood) and Group Captain A. M. Jardine, A.F.C., C.O. of St. Hubert.

The team won two events, came second in five, and third in one event. Individual distinction was earned by Flight Sergeant Brown, who won the first stage of the provincial match, and by Leading Aircraftman Green, who captured the tyro's grand aggregate prize.

A week later, in the D.C.R.A. matches at Ottawa, Flt. Sgt. Brown won the standing match and L.A.C. Green won the coveted Queen's Medal for the R.C.A.F., which may be worn by the winner throughout his Service career. The team as a whole placed fourth in one event.



Standing (l. to r.): Flt. Sgt. J. W. Brown, Group Capt. A. M. Jardine, W.O.2 W.L.A. Blain, Flying Officer I. F. Flemming. Seated: Sgt. M. Susick, Corporal P. Newman, L.A.C. D. A. Green.

In order that the November issue might serve as a memento of Her Majesty's visit to Ottawa for the opening of Parliament, we were obliged to hold up its preparation for nearly two weeks beyond our regular deadline. We ask our readers' indulgence for the unavoidable lateness of its publication.—Editor.



On the road from Primrose to Cold Lake.

## No. 2 Construction and Maintenance Unit

BY FLYING OFFICER S. G. FRENCH

*(It is not generally realized, even within the Service, that the R.C.A.F. operates one of the most versatile construction organizations in Canada, and that many of its tradesmen have worked in a greater number of locations and under far more varied conditions than even the most restless of that restless tribe, Canada's construction men.—Editor.)*

ONE day in August 1954, the natural quietness of the Primrose Lake area in northern Alberta and Saskatchewan was, to the indignation of the resident birds and beasts, suddenly and very vulgarly disturbed. On flapping wing and silent foot they retreated deeper into the wilderness, until only one or two berry-bloated old bears lingered on the perimeter of the forest glade to watch the first

C.M.U. tractor train grind to a halt and spill forth a few haggard-looking airmen.

The site had been reached, and a makeshift camp was immediately set up. But the work on this project had actually begun two months earlier, in June, when a team of airmen under the project's first officer commanding, Flying Officer (now Flight Lieutenant) A. F. Meurling, began to build the access-

road from Cold Lake. From the beginning, some of the supplies and men were brought in by *Otter* or by helicopter (the *Otter* still makes at least two trips a week), but most of the equipment and men had to be brought in by land, especially the heavy construction equipment and materials. One article which presented a very serious transportation problem was the forty-foot coastal crash-boat, the M.873 *Gan-net*.

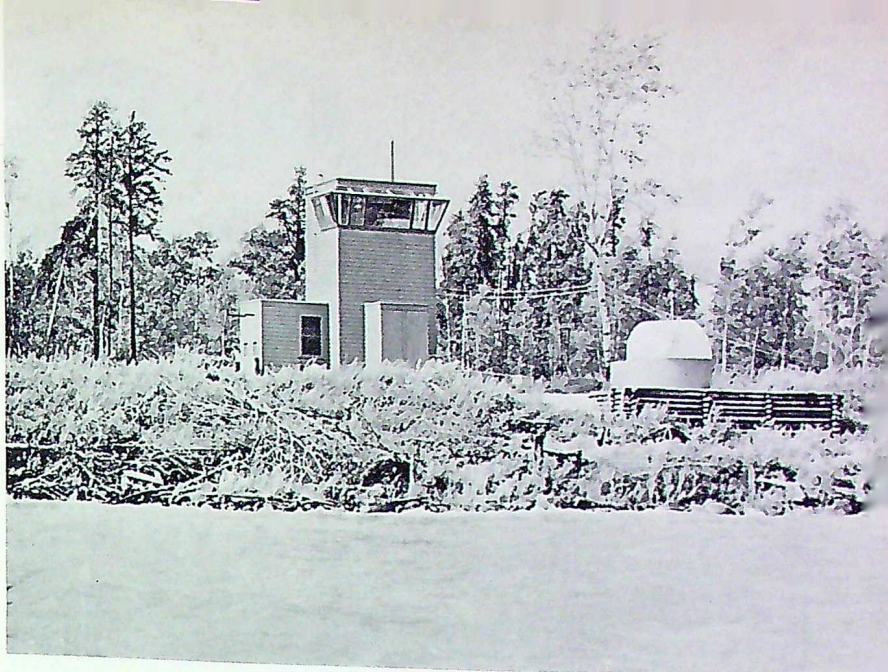
There is a winter trail overland which is only thirty-four miles long; but it is in the summer months, when the forty-two mile summer access-road must be used, that troubles develop. No good source of gravel has been located in the area (although they are still searching), so the sand and clay of the road must remain *au naturel*. Driving over the road, one finds two-year-old corduroys now swamped by two feet of mud. The wooden bridges that the airmen built were soon turned into dams by the beaver, and the water was forced to find new paths and, of course, cause constant washouts. The sturdy cargo-trucks and the caterpillars have to winch themselves or each other through areas of road which, when not frozen, return to their original state of muskeg. If the leading vehicle gets stuck, it must either winch itself to the one behind it or to a tree in front of it. Often the trucks must carve new roads for themselves by driving through the forest of jack pine and poplar, leaving the fragrant perfume of crushed pine-needles in the air. One trip into the camp site is on record as having taken thirty-six hours. When Wing Commander W. Paylor (the present O.C. of No. 2 C.M.U.) made his first visit to this site, he left Cold Lake at seven o'clock one morning and finally arrived at the camp at two-thirty the next morning.

Two aspects concerning the proj-

ect at Primrose Lake obviated the possibility of its being done by civilian contractors: its inaccessibility and the security classification of much of the work. The 2 C.M.U. project at Primrose Lake looks like a horseshoe, with the construction camp and headquarters at the centre of the curve, and with camera stations, observation towers, and theodolite bases pin-pointed up the lake on either side. This is the armament evaluation range for the Central Experimental and Proving Establishment. The Canadian Government leased this site from the Alberta and Saskatchewan Governments. It is forty miles deep and eighty miles from east to west.

Today the R.C.A.F.'s CF-100s take off from Cold Lake, zoom north over the eighty-foot central control tower on a hill called Primrose Mountain, and down over the lake, firing their rockets at Pelican Island. To make this possible, the men of C.M.U. had to undergo quite a bit of hardship. At first, they worked for twelve hours a day, seven days a week. Now that the major portion of the basic construction is completed, everyone works only sixty hours a week. The civilians (numbering 41) start on a Sunday, work for two weeks straight, and then get Saturday and Sunday off. Airmen (43 all told) are entitled to one week off out of every four. At this rate they work 180 hours per month, whereas the average airman works only 160 hours. As there are only ten of the airmen now at Primrose who are not married, the reader will appreciate that the P.M.Q.s at Lincoln Park house a very large number of wives who anxiously await the return of their husbands.

The construction of the rotary target-launcher, ramp and towers, target repair and storage building, accommodation buildings, the power-house and the means where-



*Theodolite station, Primrose.*

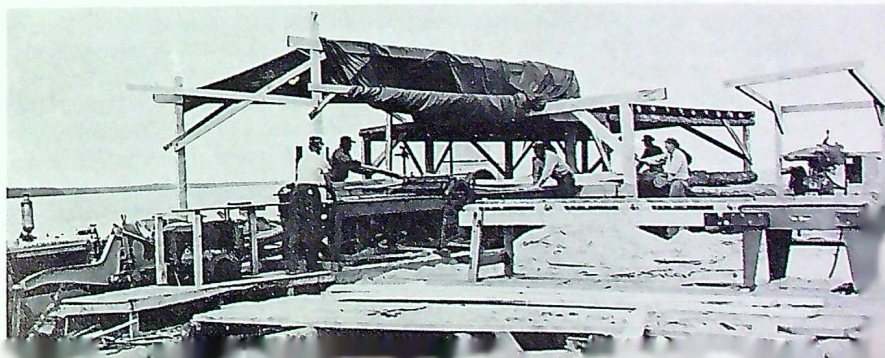
rant shelters, theodolite bases, camera stations, an instrumentation building, a marine dock and boathouse, Steelex buildings, bulk fuel storage tanks, an acceleration test track; the clearing of timber and brush from Primrose Mountain; the improvement of the access road and the building of a further twenty-five miles of road around the lake — these are some of the jobs that have been, are being, or will be done by No. 2 C.M.U. The project continues to mushroom: the original plans called for three theodolite sites, now there are thirteen.

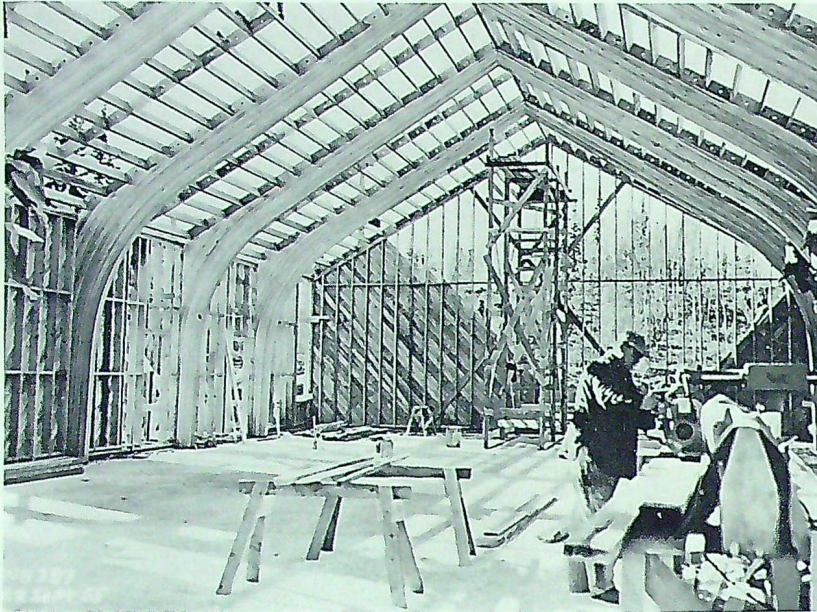
Most of the accommodation buildings, the mess, and the canteen are of Steelex construction — prefabricated steel buildings which are shipped in pieces and then assembled like a jigsaw puzzle. The finished lumber and other pieces of equipment necessary for the completion of interiors are shipped in

for installation. R.C.A.F. plumbers, electricians, carpenters, and painters combine to create a magnificent finished product.

Here is a list of only a few of the construction problems which were met and overcome. At English Bay on Cold Lake, at the bottom of Smith Hill on the access-road, five layers of corduroy had to be put down before the road was even passable. Transportation costs were so high that the small sawmill which was brought to cut rough lumber and timbers has long since paid for itself. Six hundred bags of cement were laboriously brought in by the *Otter*. The airmen then had to carry the bags up Primrose Mountain on their backs, for the vehicles could not climb the slippery grade. The cement-mixer was towed in by a caterpillar. On the first try, at the top of a steep hill, the cable broke and the mixer rolled down to

*Saw-mill at Primrose Lake.*





Whitehorse chapel

destruction. (The driver of the caterpillar came on into camp and went straight to the mess to eat his dinner. His hunger satisfied, he went to the O.C. and said: "Had a little trouble.") On one of the first tractor trains to go in, no one knew enough to fasten anything down in the cook-house. Thus, when the train stopped for lunch and the cook-house door was opened, out fell the china, silverware, lunch, and two haggard and dirty-looking cooks. The steel for the control tower was transported in forty-foot lengths on twenty-six foot trucks. Needless to say, it was somewhat bent.

The sites around the lake were well under way before any roads were built. A home-made barge, "The Primrose Queen", was employed to transport the material. Two pumps were kept in constant use day and night. On two occasions, when the barge was loaded at night to enable an early start to be made, it was found, in the morning, on the bottom of the lake. The air-

men's and the civilians' sleeping-quarters are in the new Steelox buildings, which are blessed with interior plumbing; but the officers and senior N.C.O.s until recently resided in an old temporary wooden hut behind which one may find a sturdy privy of the old school. A good measure of the difficulties of the jobs and the bleakness of the locality is summed up in one statement made by a former O.C. of the project, Flt. Lt. Jack Armstrong: "A lot of visitors have flown in here, taken one look around, and climbed back on the *Otter* for the return trip."

\* \* \*

The headquarters of No. 2 Construction and Maintenance Unit are located at R.C.A.F. Station Lincoln Park, Calgary. The Commanding Officer of Lincoln Park is Group Captain C. V. Trites, one-time commander of No. 9 C.M.U. in Vancouver. The present O.C. of No. 2 C.M.U. is Wing Cdr. W. Paylor. C.M.U. is under the functional and administrative control of the Air Officer

Commanding, Air Materiel Command, and the Service personnel of this Unit cannot be employed except under the authority of a work-order from A.M.C.H.Q.

The main peace-time functions of the C.M.U. are:

- To train and maintain Service tradesmen who will be able to expedite a rapid expansion in the eventuality of a national emergency.
- To carry out urgent and/or isolated projects which could not economically or expeditiously be awarded to civilian contractors.
- To be prepared to undertake any work that carries a security classification.

To achieve these objectives, the strength of the Unit is at present maintained at approximately 220 Service officers and men. Civilian personnel are hired and released as dictated by project requirements. The work programme of C.M.U. does not normally exceed \$2,000,000 per annum.

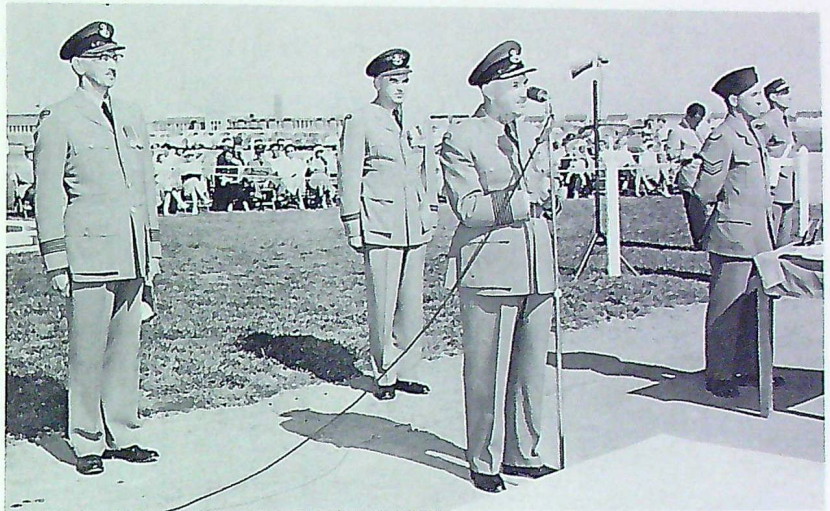
At the peak of the Second World War there were six C.M.U.s; now there is only one — No. 2. The first C.M.U.s came into existence on 9 November 1942, and one was established in each of the six war-time commands. These were: No. 1 C.M.U., Toronto; No. 2, Winnipeg; No. 3, Montreal (later at St. Hubert); No. 4, Calgary; No. 8, Tufts Cove, N.S. (later in Halifax); and No. 9, Ucluelet, B.C. (later in Vancouver). A seventh C.M.U. (No. 10) was established at Dawson Creek in June 1944, and subsequently moved to Edmonton.

During the war, these units between them did important and, more often than not, difficult work throughout Canada. Most of their personnel were direct-entry recruits, skilled construction-men who were persuaded to join by those already in the Service. At the war's end, almost all construction was halted. Practically overnight, equipment was sold and tradesmen were demobilized. The units in Halifax and St. Hubert were completely disbanded, and in 1945 Winnipeg's No. 2 was moved to Calgary,

where it absorbed No. 4, ending up with a total strength of about thirty men. A year later the Vancouver unit closed up and a few of the personnel were moved to Calgary. In 1947, when No. 1 (Toronto) closed, Calgary received some of its personnel too, but the total number of tradesmen at No. 2 still did not exceed one hundred until, in 1949, the unit also absorbed Edmonton's No. 10.

In October of the same year, No. 2 C.M.U. sent a work-party of fifteen men to Whitehorse to begin preparations for Operation "Sweet Briar". Eventually there were 300 men there, and these spent six arduous months paving the way for the Army and Air Force personnel, both Canadian and American, who were to follow. They reactivated sewer and water services, erected a new powerhouse and distribution system, constructed M.E. garages at Snag, Aishihik, Pon Lake, and Burwash Landing. They rehabilitated two hangers at Whitehorse, where they also repaired the control tower, the officers', N.C.O.s', and airmen's messes, and provided heating and lighting facilities for several buildings. Today, C.M.U. is still doing many jobs at Whitehorse and Fort Nelson. Two spanking new chapels have been recently completed at R.C.A.F. Station Whitehorse, and work is going ahead on drill-hall and recreation-hall.

The years 1950-1952 marked the beginning of a new life for No. 2 C.M.U. In this interval large projects were under way at such widely separated points as Vancouver, Resolute Bay, Whitehorse, Goose Bay, St. Johns, Churchill, the North-West Staging Route, and at six N.A.T.O. units. When the N.A.T.O. training scheme began, the major project in C.M.U.'s history was the rehabilitation of the war-time training bases at MacDonald, Portage la Prairie, Moose Jaw, Saskatoon, Claresholm, Gimli, Penhold,



Group Capt. C. V. Trites giving his address during take-over ceremony at Lincoln Park. With him are (left to right): Wing Cdr. J. M. Griffith, the departing C.O., and Flt. Lt. D. B. Gunn.

and Comox. These months of high-priority assignments saw C.M.U. with a Service strength of about 500 tradesmen, and as many as 2000 civilians.

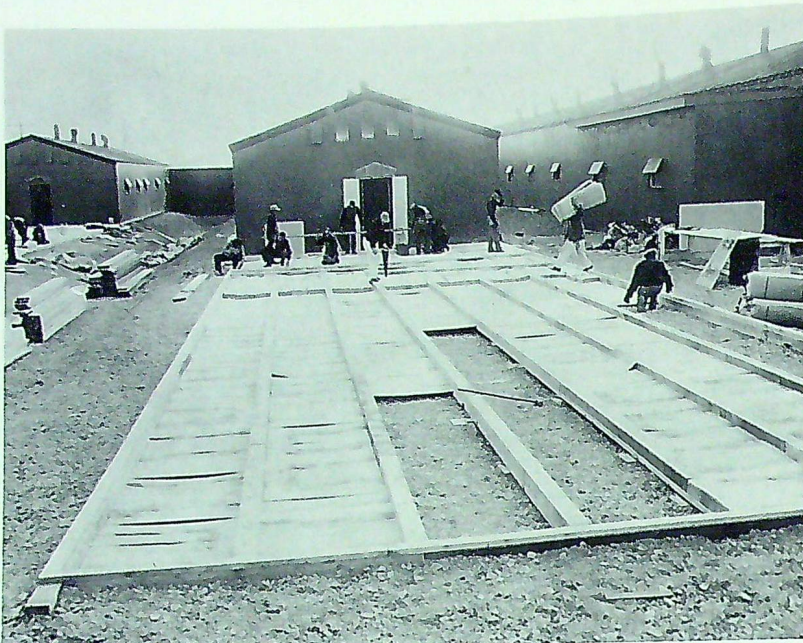
Actually, it is quite a problem to name an R.C.A.F. station in Canada which has not felt the magic touch of the men from C.M.U. It is also very difficult to name a type of construction job which has not been, or cannot be, done by these airmen. They it was who built the West Coast radar chain, the Massett strip, Beetle sites, the Baker Lake strip, the Goose Bay powerhouse, to name but a few of their achievements; and they were the first Service personnel to invade such places as Tofino, Comox, Coral Harbour — each with its own peculiar topography, soil system, drainage requirements, and various other local conditions to tax the construction man's ingenuity.

A brief glance at each of three comparatively recent projects will convey, more adequately than generalities, the way in which No. 2 C.M.U. functions.

\* \* \*

The project of establishing a supply base at the mouth of Great Whale River, which flows into the south-east corner of Hudson Bay, was begun in October 1954. Warrant Officer Michaud, seven men, and some equipment were flown in a *Canso* to the site, where they were joined later by Flt. Lt. (now Sqn. Ldr.) J. M. Monahan. On landing, they were greeted by a group of Eskimos, the Department of Transport's weather-station operator, and his wife. Their purpose was to construct a landing-strip as soon as possible. They were supplied with K-rations and fifty gallons of naphtha gas to operate the Coleman stoves. Given enough rations for forty days, they were told that no more aircraft would land on the river because of the lateness of the season and the consequent danger from ice.

For housing they had been provided with three arctic tents, supposedly each large enough for five men — but, as the C.M.U. men discovered later, capable of containing, with any degree of comfort, only two men and their baggage.



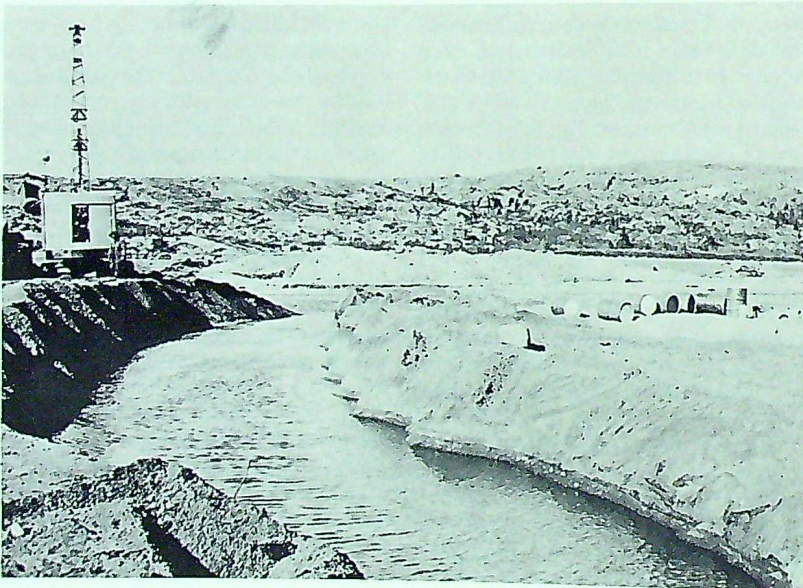
Erection of Steelox buildings at Resolute Bay.

Moreover, one of the tents had to be used for the rations. To make matters worse, as a gesture of welcome, the Eskimoes' dogs broke into the

rations-tent and ate thirty pounds of butter and eleven loaves of bread.

Three pieces of major M.E. equip-

Great Whale Bay.



ment had been left at the site, in September, by one of the Department of Transport's ships. Since the area was naturally clear of all trees and major obstructions, very little clearing was necessary, and since the terrain consisted solely of sand, no drainage problem existed. The airmen soon discovered, however, that the sand was too dry for mechanical compaction; in short, the motor grader with its rubber tires was useless. The two caterpillars were employed in a novel way to clear the strip, which was full of eskers (mounds of post-glacial gravel). While one of them graded by the simple expedient of back-dragging a dozer-blade over the ground, the second cat pulled a small wooden sand-drag made for C.M.U. by the Eskimoes out of the scrubby and stunted spruce which is found in that area. The sand-drags, by the way, were put together with mortised joints that would have done credit to a first-class cabinet-maker.

The first three weeks were ones of misery for the C.M.U. airmen: a ceaseless rain and wind soaked through the tent walls, leaving nothing dry. During this period a stone-boat (a raft held together with wooden pins) was built to transport equipment and fuel to the site, a mile up the river. Then as the frost began to enter the ground, the grader was able to go to work on the frozen sand early in the morning and late at night. In November, six weeks after work had begun, a *Dakota* landed on the first 4000 feet of frozen runway.

Work progressed steadily until it became too cold to do any more to the runways. The remainder of the winter was spent in airlifting construction materials and heavy equipment to the site in order to build a camp and make ready to lay a permanent gravel strip, 5000 feet in length, as soon as the frost had left the ground. Some of these

aircraft brought G.P. huts from Montreal. On one occasion, in driving wind and snow, and with the thermometer registering 28° below zero, the C.M.U. airmen unloaded six box-cars one after the other.

The camp is on a plateau overlooking the bay, and the runways lie between them. Near by is a spring-fed lake which never freezes completely, and this provides fresh water. During the winter the airmen located several gravel deposits within easy reach of the area. After the spring thaw, which generally takes place around the end of April, a road was built from the camp to the runway. By June, the 5000-foot strip was completed. Often working fourteen hours a day, every day of the week, with no recreation other than a little seal-hunting on the ice with the Eskimoes, this handful of airmen built a new R.C.A.F. station in record time.

\* \* \*

Each year the turquoise, snow-capped ice-floes leave Resolute Bay for about two weeks. The R.C.A.F. (mostly C.M.U.) airmen, a few D.O.T. and United States Weather Bureau personnel, seven Eskimo families, and one member of the R.C.M.P., all turn out at the head of the Bay to welcome a large party of seamen and stevedores to Cornwallis Island. For this is the time for re-supply in Canada's far north.

The year 1957 was no exception. One day in August the control tower received a message that the boats were soon to reach port. A few hours later, Levi (an Eskimo who hunts for seals and walrus when he isn't hacking figurines out of soap-stone or helping the men of C.M.U. to erect buildings) ran up to the camp and reported seeing five ships sailing through the mist-shrouded icy waters into Resolute Bay. These craft turned out to be a fuel-tanker, a large cargo vessel, and three D.O.T. ice-breakers — the

*d'Iberville*, the *C. D. Howe*, and the *MacLean*.

On such occasions the cargo vessel carries all the pieces for those gigantic jig-saw puzzles, the Butler buildings and the Steeloxes. While the stevedores (who one year consisted mainly of a group of student priests from Montreal) unload the cargo, the men of C.M.U. assist them and conduct a spot inventory to make certain nothing has been forgotten. (Warrant Officer Andrews, the foreman of works, is naturally concerned to see that his calculations made months before have not been faulty!)

As soon as the tanker has dropped anchor, her stern is winched to a "dead-man" buried in the gravel at the shore. This is done in order to prevent any but the slightest movement on the part of the ship. Two "sea-lines" of rubber hose are then connected from the ship to the ends of the two steel pipelines which stretch for three miles from the shore of the bay to the site of the station. Each line contains two booster pumps located equidistantly along its length. C.M.U. is in charge of the pumping operation. This year, after 41 hours of continuous pumping, a year's supply of fuel had been stored away — 200,000 gallons of arctic Diesel fuel (which is used for power- and steam-plants, and for heating the buildings) and 450,000 gallons of aviation gasoline.

Cornwallis Island is merely an area of shale, without trees or vegetation of any kind except some moss and two or three sorts of hardy little flowers. Upon it the men of C.M.U., with the help of half a dozen Eskimoes, have erected Butler and Steelox buildings. Eleven men can put up the shell of a 60' x 160' Butler building in 47 hours. In this land, where any day may bring snow, the buildings have insulated floors of rock-wool between two layers of plywood. This enables the permafrost to work

right up to the surface of the ground, and once the frost has risen, it never leaves. Thus, the buildings' foundations are theoretically solid for all time.

\* \* \*

In 1875, the Nares expedition, consisting of two ships, the *Alert* and the *Discovery*, wintered on the north coast of Ellesmere Island. Throughout the winter numerous trips were made by sleigh to survey the coast of Ellesmere and the north-east coast of Greenland. On 11 June 1956, seven C.M.U. airmen were flown into Alert to prepare for the construction, on the most northerly point of land in North America, of the latest of the Joint Arctic Stations.

These men — W.O.2 Horgan (foreman of works), Corporal W. Campbell (Mobile Equipment Technician), Corporal Onishenko (Metal Tech.), Leading Aircraftmen Nuculak (M.E. Operator), Fitzpatrick (Carpenter), Wilkinson (Carp.), and Keays (Cook) — of whom five are married — were left at Alert until the middle of September. Flown in from Calgary in a C-119, they were given such things as an unassembled G.P. hut, messing equipment, soap, detergents, mops, rags, towels, an electric welder for M.E. repair and sleigh overhaul, a kitchen stove, rations, beds, sleeping-bags, adequate personal clothing for four months, a first-aid kit, and a précis entitled "First Aid for Small Northern Project Parties."

The site overlooks the Lincoln Sea and Dumb-Bell Bay. It is about three miles from the coast at an altitude of 191 feet above sea level. Approximately 30 miles away, one can see a range of mountains whose highest peak towers to 10,000 feet. The task of the seven airmen was to erect their hut, sustain themselves, make the M.E. equipment serviceable, lay out the camp site into the prevailing south-west wind, and utilize the machinery to scrape up loose rock which would later be

used for foundation pads. Every ten days a party went to a freshwater lake two miles from the camp, where they dynamited the 10-foot-thick ice and then hauled back enough water for the next period.

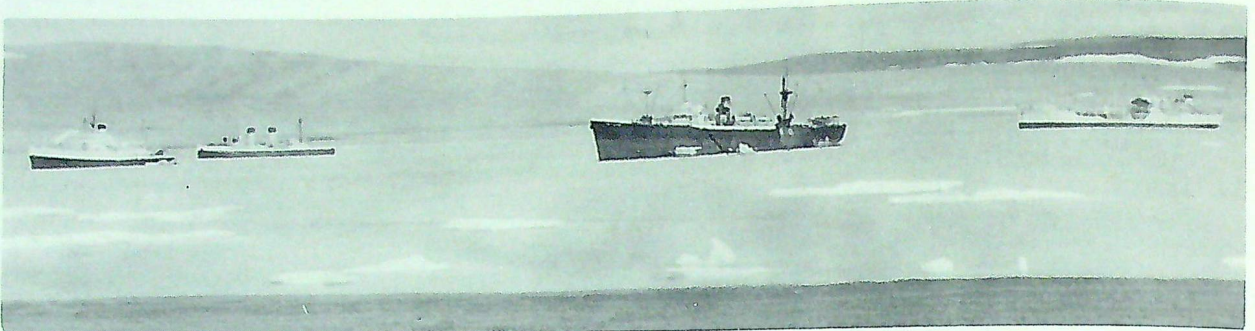
This was Phase One. Phases Two and Three, which came in the summer of this year, involved the bring-

ing in of 100 tons of materials and supply by sea, the airlifting of another 400 tons, and the final major construction job.

The story of No. 2 C.M.U. might be elaborated almost *ad infinitum*, but enough has been said to give a fairly good idea of the lives led by its men. Nowhere in the Service

is morale higher, and, though no unit or branch has tougher jobs to do, nowhere are jobs tackled with greater zest. Perhaps, however, that is not remarkable, for only men of considerable character can meet the challenge that the work of C.M.U. presents.

Supply ships at Resolute Bay.



## Service Soccer



THE popularity of soccer in the Services has been steadily increasing during the past few years. This year the game has been given a tremendous boost by the inception of an annual tri-Service competition for the Pearkes cup, so named for the Minister of National Defence, the Hon. George R. Pearkes.

Sponsored by the Ottawa Area of the Department of National Defence Soccer League, the cup was won this year by the R.C.A.F. Rockcliffe eleven. After a 90-minute battle on Saturday, 21 September, in which they beat the R.C.A.F. Up-lands team by a score of 4 to 1, Rockcliffe was honoured by being the first to be presented with the Pearkes Cup.

The presentation, made by the Minister on the Rockcliffe ground,

was received by W. Ward, the team captain.

Consideration is now being given to the possibility of extending this competition by means of country-wide playoffs, arranged on a zonal basis. The final decision depends to a large extent on the number of Navy, Army, and Air Force teams interested in participating. Should there be sufficient to make it worth while, and should the zoning prove economically practical, such an expansion of the competition would be a healthy possibility both for Servicemen and for the sport as a whole. Flight Lieutenant J. R. Boucher, of the Directorate of Personnel Administration at A.F.H.Q. would be glad to hear from those R.C.A.F. teams interested in the project.

(Flying Officer P. A. Collier.)

# R.C.A.F. Association

*This Section of "The Roundel" is prepared by R.C.A.F. Association Headquarters.)*

## ARCHBISHOP ROBERT JOHN RENISON

IT is with deep regret that we record the passing of Archbishop Robert John Renison, M.A., D.D., who served as Honorary Chaplain (Protestant) of the R.C.A.F. Association from its inception. Archbishop Renison had devoted a long life of service to his fellow men, particularly in Northern Canada, and since his retirement from the Church in 1954 had continued to exert his influence for good by his writings in the press. Last Christmas, it may be recalled, in the Association section of "The Roundel", the Archbishop sent a Christmas greeting to all serving and former members of the Royal Canadian Air Force.

## BATTLE OF BRITAIN ANNIVERSARY

On Sunday, 15 September, the seventeenth anniversary of the Battle of Britain was observed. This year Wings of the Association participated more actively in the memorial services than ever before. This is most encouraging, for the Association has been striving for many years to establish Battle of Britain Sunday as a truly Air Force Day of Remembrance.

The members of the R.C.A.F. Association hope that this day will ever remind men of the heritage passed on to them by that small group who defended our way of life against overwhelming odds.

In Ottawa, Air Vice-Marshal F. G. Wait, C.B.E., our National President, took the salute as more than 1,000 R.C.A.F. officers and airmen participated in the commemoration service.



No. 251. Wing: Battle of Britain Sunday. Left to right: D. Guimond, Father George Travers, A. Daigle.

## NATIONAL EXECUTIVE COUNCIL'S ANNUAL MEETING

The annual meeting of the National Executive Council of the R.C.A.F. Association will be held in Ottawa on 28 and 29 November 1957.

## R.C.A.F. ASSOCIATION AWARD

The R.C.A.F. Association Trophy, awarded annually to the Air Cadet Squadron which is assessed as the most proficient in Canada, goes this year to No. 588 (Canadair) Squadron, Montreal. At the time of writing, arrangements have been made for the Trophy, together with an illuminated scroll and cash award, to be presented to the winning squadron on the occasion of the annual dinner of the Quebec Provincial Committee of the Air

Cadet League of Canada, on 17 October. Air Vice-Marshal A. L. James, C.B.E., Vice-president of the Association, will make the presentation.

## STATE VISIT OF HER MAJESTY

On the occasion of the Royal visit to Canada, the R.C.A.F. Association received special recognition. Air Vice-Marshal and Mrs. Wait were guests at the Prime Minister's reception and had the honour of being presented to Her Majesty, who is Patron of our Association, and His Royal Highness Prince Philip.

Air Vice-Marshal Wait was also a special guest when the Queen laid a wreath and inspected veterans at the War Memorial on Sunday, 13 October.



No. 250 (St. John, N.B.) Wing. The Wing picnic. (Climo photograph.)

## WING NEWS

No. 306 Wing. President J. Ritchie presents the R.C.A.F.'s Harold Feldman Memorial Trophy to Cadet D. C. Huot at the graduation ceremonies of the Collège Militaire Royal de St-Jean. The trophy is presented annually to the winners of the Squadron Sports Championship.



### Battle of Britain Sunday

**Montreal Wings.** Eight hundred airmen from the regular R.C.A.F. at Air Defence Command (St. Hubert), Air Transport Command (Lachine), Auxiliary squadrons, R.C.A.F. Association (Nos. 306, 310 and 313 Wings), and approximately ten Air Cadet squadrons paraded on Sunday, 15 September, to commemorate the Battle of Britain.

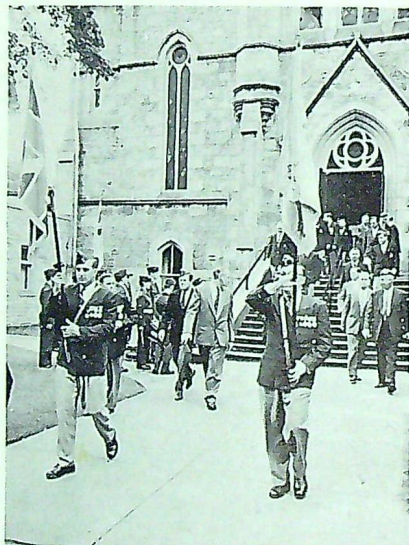
Air Vice-Marshal L. E. Wray, O.B.E., A.F.C., Air Officer Commanding Air Defence Command, laid the wreath on behalf of the R.C.A.F. and took the salute during the parade. The president of the Maple Leaf Wing, James Ritchie, commanded the Association squadron and laid a wreath. Church services were conducted at Notre Dame Cathedral and St. George's Church.

No. 251 (Madawaska) Wing. Led by the bugle band of No. 313 Squadron, R.C.A.C., members of the Madawaska Wing, Edmundston, paraded to the Cathedral of the Immaculate Conception under the command of Alyre Daigle, Wing

president. The Ladies' Auxiliary served lunch to the air cadets and to members of the Association.

**Toronto Wings.** The members of the three Toronto Wings participated in the annual Battle of Britain Parade. On this occasion the salute was taken by the Minister of National Defence, the Hon.

No. 400 Wing. Colour-bearers F. Bill (left) and H. Thompson leave church after Battle of Britain service.



couragement of the humanities and sciences, was the first to be awarded to a member of the Royal Family.

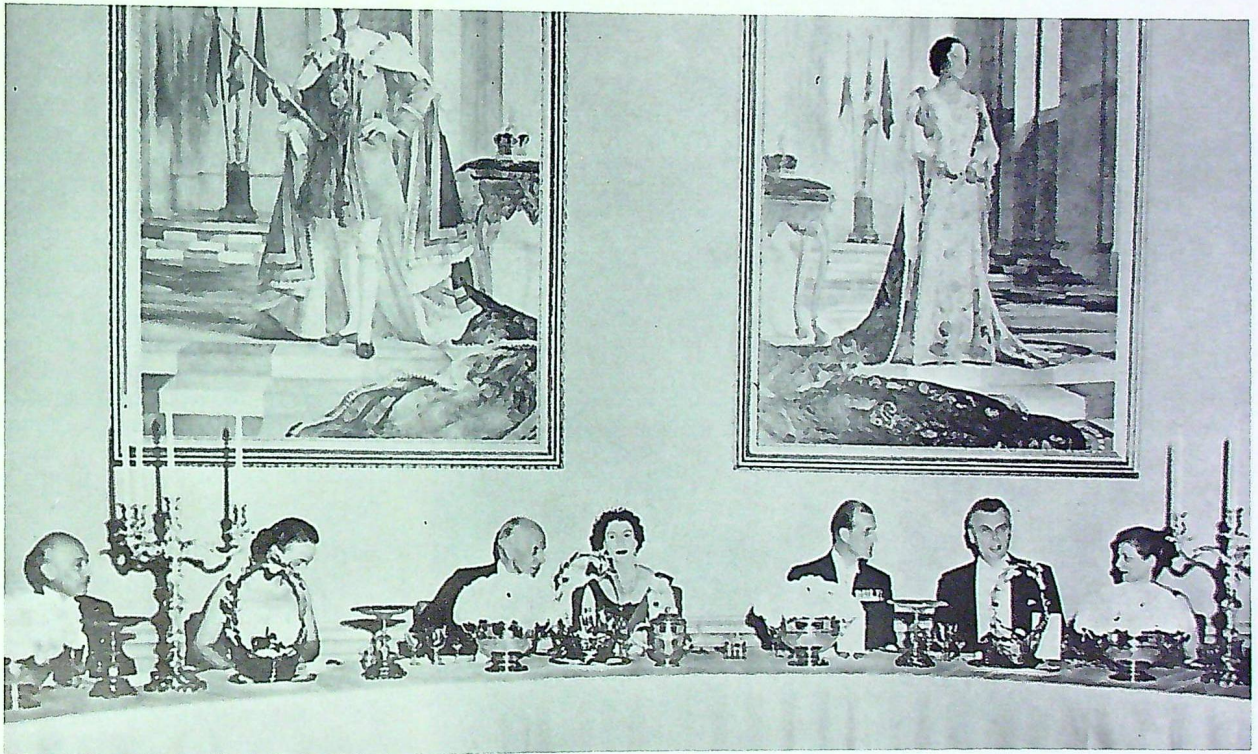
That evening a state dinner was held at Government House for 113 guests, and it was followed by a state reception which more than 400 persons attended. Among the guests were cabinet ministers, members of the diplomatic corps, political and church leaders, lieutenant-governors of the provinces, provincial premiers, and members of the armed services.

During the four-day period of the Queen's and the Duke's visit, Government House became a Royal Household. Therefore, in keeping with a time-honoured custom, a Royal Household Guard was mounted. Under the command of Squadron Leader R. S. Davis, this tri-Service guard took up its post shortly before Her Majesty arrived,



*The State Dinner. (Newton photo.)*

*The speech from the Throne.*





*The tri-Service Household Guard.*

*Queen Elizabeth signs the Golden Book at the civic reception in Hull.  
(Studio Moderne photo.)*



and maintained 24-hour vigil until the Royal Couple's departure. During their stay, the Royal Household Guard and the band of the day added to the colour of the occasion by changing the guard, with full military ceremony, each noon.

Possibly the most tumultuous reception encountered by the Queen in the whole course of her visit was that which was accorded her, on the fourth day, by the citizens of Hull, when she crossed the Ottawa River to attend a civic reception in the Quebec city's Hôtel de Ville and to sign its Golden Book. On this trip, Her Majesty demonstrated conclusively that the Queen's French is every bit as good a means of communication as the Queen's English.

From Hull's city hall the Royal Couple returned to Ottawa, where the Queen launched the construction of a multi-million-dollar highway system, the Queensway. At Hurdman's Bridge, which was opened by her mother in 1954, the Queen touched off a dynamite explosion which inaugurated the greatest engineering project in modern Otta-

G. R. Pearkes, V.C. Mr. Frank McGee, a member of the Association and M.P. for York-Eglinton, placed the Association wreath on the Cenotaph. This marked another fine turn-out by the Toronto Wings.

(Note: Pictures and detailed reports of Wing participation in Battle of Britain ceremonies will be published in the next issue of "Wings at Home".)

### National President at Ontario Wings

Air Vice-Marshal Wait paid a visit to Nos. 400 (Guelph) Wing and 404 (Kitchener-Waterloo), and, together with Mrs. Wait, attended the Battle of Britain Ball sponsored by the three Wings of metropolitan Toronto. In Guelph and Kitchener the meetings inaugurated the current Wing membership drive. The National President reported that the members were enthusiastic and that both Guelph and Kitchener should increase their membership substantially.

### New Building for 2451 A.C. & W.

The new home of No. 2451 Aircraft Control and Warning Squadron (Aux.), in Windsor, Ontario, was officially opened by Air Vice-Marshal W. E. Kennedy, A.F.C., representing the Chief of the Air Staff. This ultra-modern building stands as a lasting monument to the 400 Windsor airmen who lost their lives in the Second World War. Members of No. 412 Wing of the Association may well be proud, as they played an important part in the efforts to obtain such a building.

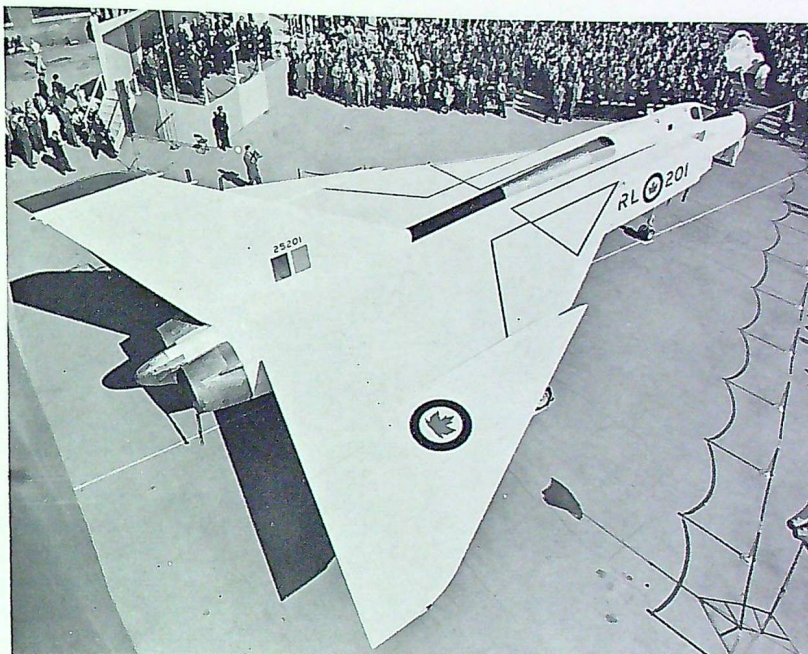
The mailing list for "The Roundel" is being corrected to date. Those members who have not paid their 1957-58 dues will, of necessity, be suspended from the list. Please forward your dues and avoid missing the magazine.

## THE ARROW

The Avro *Arrow*, Canada's first supersonic aircraft, was unveiled on 4 October by the Hon. G. R. Pearkes, V.C., Minister of National Defence, at a ceremony attended by some 12,000 people.

Designed as a key component of the North American air defence system, the delta-wing interceptor is a

twin-engined two-place aircraft. Speaking on behalf of the R.C.A.F., the Chief of the Air Staff, Air Marshal H. L. Campbell, said that the planned performance of the aircraft is such that it can effectively meet and deal with any likely bomber threat to this continent over the next decade.



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

BY FLIGHT LIEUTENANT J. E. WILLIAMS, D.F.C.,  
Staff Officer Public Relations, Air Materiel Command.

*(Flt. Lt. Williams has more than a passing interest in parachutes and their uses. Before joining the R.A.F. in 1940, he was a pilot and parachutist barn-storming around England. Shortly after Dunkirk he left his squadron to become the first chief instructor in Britain's newly formed paratroops, and was instrumental in completing many of the original experiments for training requirements. He eventually flew as chief despatcher on the first Allied parachute operation to Southern Italy in February 1941, when 36 men were dropped to destroy an aqueduct supplying Southern Italy with water. With 549 jumps to his credit, he returned to flying, continuing his association with the special force by parachuting agents into France and, later, by landing them in Lysander aircraft.—Editor.)*

SKETCHES by Leonardo da Vinci show that the idea of a device to allow men to sink slowly from the air to the ground was thought of as early as the 15th century. Countless experiments and improvements have, over the years, brought radical changes to Leonardo's pyramid-shaped "tent of linen", culminating in the modern automatically-opening parachutes that are in service with the R.C.A.F. today.

Following da Vinci's death, interest in parachutes appears to have waned until the era of hot-air balloons and lighter-than-air machines ushered in the need for them. In the 18th century the Montgolfier brothers dropped a sheep in a parachute from a tower in Paris, and in 1797 a French aeronaut by the name of André J. Garnerin gave public exhibitions of parachute jumping. The first recorded emergency jump came long before the days of the Caterpillar Club, when, in 1808, a Polish aeronaut made a successful emergency descent by parachute after his balloon had caught fire. The first parachute jump from an aircraft was made in 1911, when an American flier jumped from an aircraft in California.

Parachutes were still not in common use, however, even at the outbreak of the First World War.\* Their unpopularity was due partly to their awkward size and partly to the belief that a pilot would not be able to get clear of his aircraft. There was also a feeling among many pilots that to wear a parachute was to express lack of confidence in one's aeroplane. When, during the last few months of the war, the Germans did begin to issue parachutes, rumours soon arose that their pilots were taking to their 'chutes too readily. These rumours are given some substance by statistics which show that there was, in those months, an increase in their aircraft losses but a reduced casualty rate among their pilots.

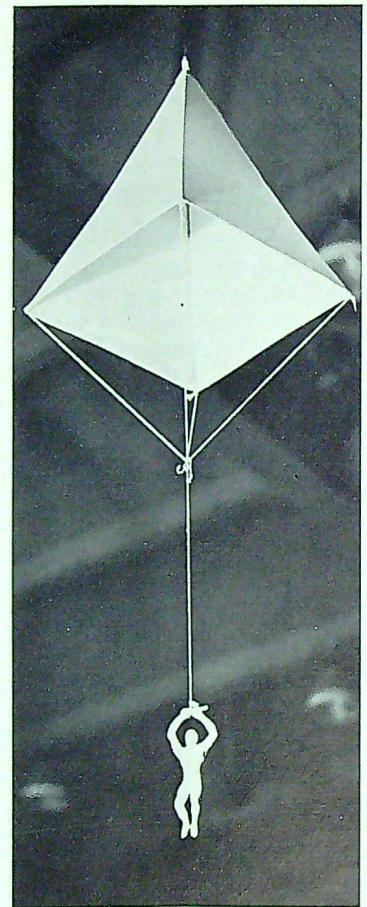
When hostilities ended, the only parachute jumping in Canada was done by civilian barn-stormers. The Canadian Air Force came and went without finding a need for parachutes, and it was not until after the formation of the R.C.A.F. in

\*This statement does not apply to balloon observers, who were, both German and Allied, equipped with parachutes from the very outset. Among the more than 800 observers who saved themselves by bailing-out were several Canadians serving with the R.F.C.

1924 that the military once again took up the question of parachute jumping. In that year Flying Officer A. Carter, M.M., and Cpl. A. Anderson were sent to the U.S.A. for a parachute riggers' course, and in the following year parachute training courses were conducted at Vancouver, High River, and Camp Borden, where a total of seven officers and nine airmen were trained.

Parachutes were officially brought into the R.C.A.F. during 1925, when an order was issued requiring aircrew to wear parachutes

Leonardo's "tent of linen"



on all flights. A total of 108 parachutes, with canopies varying in size from 22 to 28 feet in diameter, were purchased, and a six-week parachute-packing course was established. The course was given primarily to aircraftmen in the trade known as "fabric-worker", since harness and parachute repairs were carried out in the station fabric shop. A special precautionary order was issued to fabric-workers in regard to their new responsibility. The order read: "Care should be exercised to see that parachutes are not attacked by insects or other vermin."

Landing in timber.



The first recorded emergency jump in Canada took place in 1931. It was made by Sergeant-Pilot F. B. Briscoe, who hit the silk after a mid-air collision between a *Tiger Moth* and an *Avro Avian*. Three years later the R.C.A.F. used parachutes on a mercy mission for the first time when they dropped supplies to relief-camps in B.C. which were surrounded by flood waters.

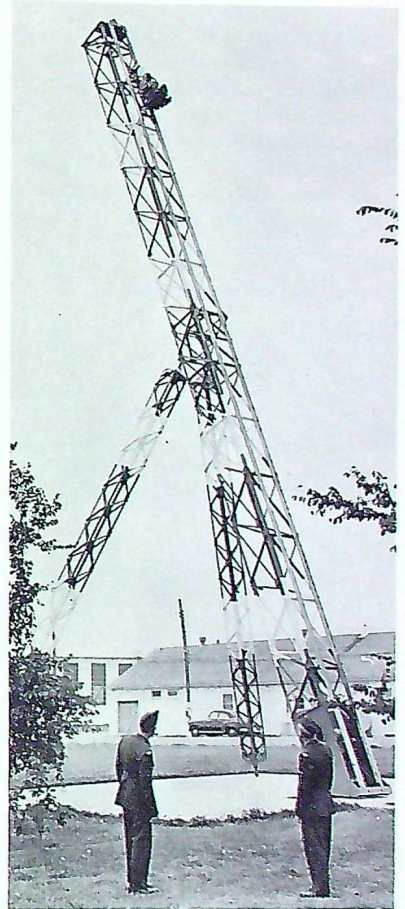
During the Second World War the parachute became very well known indeed to hundreds of Canadian aircrew who became members in good standing of the Caterpillar Club when they took to their parachutes to save their lives. It was also during the war that the R.C.A.F. began its pararescue activities. In 1943 a school to train pararescue personnel was organized at Edmonton by North-West Air Command. Intended for operations in northern Canada, pararescue teams quickly proved their worth, and they soon found themselves operating over a much broader area than had originally been planned. In that same year a detachment of No. 165 Squadron was formed at Rivers, Manitoba, to begin para-troop training in conjunction with the Canadian Army's 1st Parachute Battalion. Although the R.C.A.F.'s sole responsibility was to provide flying service for the paratroopers, numerous Air Force officers at the Joint Air Training Centre took the parachute qualifying course.

In the R.C.A.F. today there are three means whereby one can make a parachute jump. The first is to be stationed at the Joint Air Training Centre at Rivers, the second is to join the pararescue organization, and the third is to find it necessary to abandon an aircraft. At Rivers, where Army, Navy, and Air Force detachments work closely together, certain Air Force personnel, such as dispatchers and parachute packers, are permitted to take the Army's jump course. Senior officers hold-

ing positions where there is a requirement for such experience, are also eligible, and two officers who availed themselves of this opportunity to qualify for paratrooper's wings are Group Capt. W. B. Hodgson, D.F.C., who was formerly Chief Administrative Officer at the school, and Wing Commander A. L. Bocking, D.F.C., formerly the officer responsible for air training.

The R.C.A.F.'s pararescue organization was not only one of the first of its kind among the air forces of the world, but it has also been the inspiration for other air forces

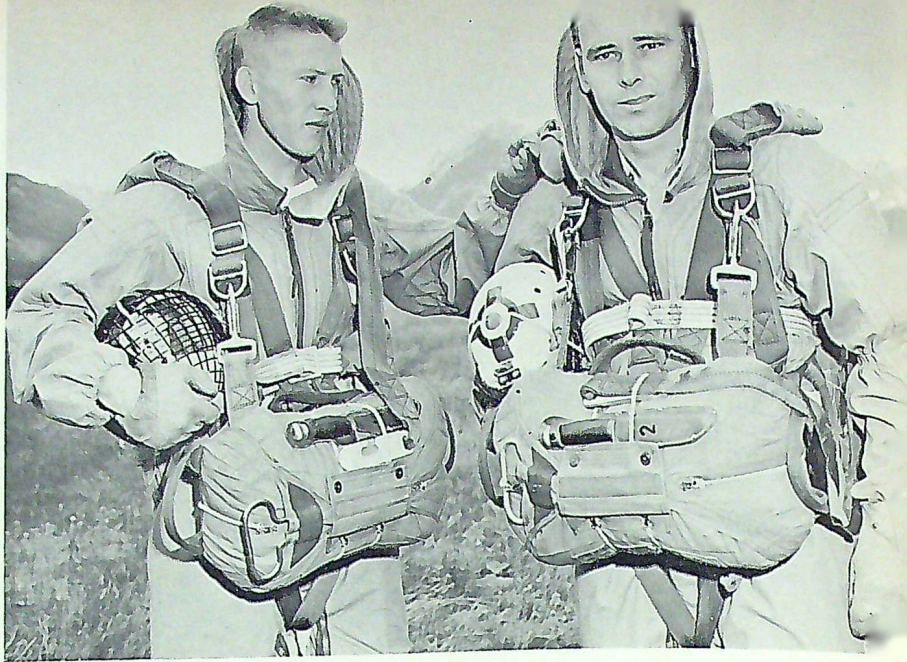
A student pilot nears the top of one of the ejection-towers used to familiarize aircrew with the jolt they will get if ever they have to leave a jet aircraft on an ejection-seat.





*Going out.*

to follow. At least three European air forces have patterned their pararescue organizations on the R.C.A.F. model. In the R.C.A.F., pararescue courses are conducted whenever there is a need for them. At present there are 37 pararescue personnel in the Service and more



*In full pararescue gear.*

are being trained. The latest 20-week course was started on 4 February 1957. The trainees, with the exception of a few medical assistants, are all from the Safety Equipment trade. Since pararescue personnel may be called upon to jump into the wilderness, a comprehensive course on woodcraft is given to them in order to prepare them for survival in the bush.

The actual jumping phase of the course is carried out at Jasper, where the terrain has been chosen for its ruggedness. Ten jumps must be made to qualify for the pararescue badge, six into open terrain and four into heavily timbered and mountainous country. This experience has stood pararescue personnel in good stead, and, on two occasions, their ability to cope with difficult conditions and hazardous situations has earned decorations for R.C.A.F. jumpers. On one of them, Sergeants J. Coutourier and R.W.S. Trent were awarded the Soldiers' Medal by the U.S. government for their rescue efforts on behalf of a downed B-36 crew at Trinity Bay, Newfoundland; on the other, the B.E.M. was awarded to Sgt. D. Wright, who was the jumpmaster of a pararescue team which

jumped into the rugged Rockies and rescued 16 passengers after the crash of a C.P.A. airliner.

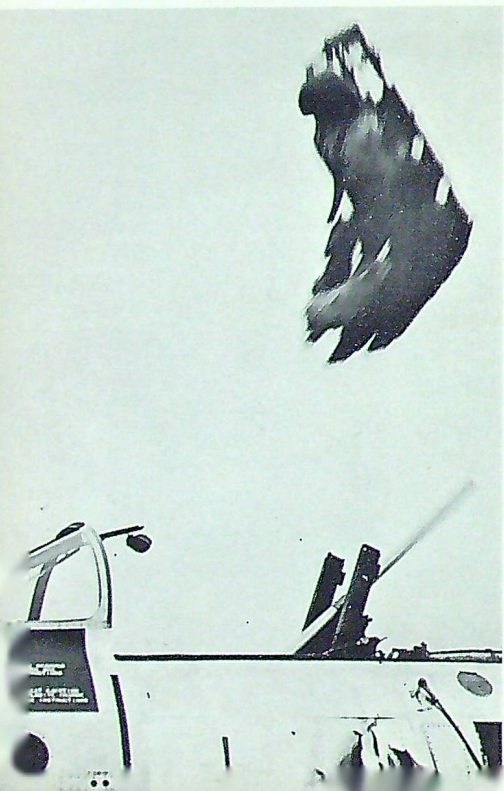
In order to maintain their efficiency and to remain "operational," pararescue personnel carry out at least one practice jump a month. After a few years in the trade, an impressive number of parachute jumps can be accumulated, as can be seen by the records of Flying Officer G. B. Leckie, A.F.M., and Sgt. R. W. Crebo. Each of them has made more than 100 jumps.

\* \* \*

In the Air Force today there are approximately 12,000 man-carrying parachutes of seven types, and many hundreds of miscellaneous parachutes of various sizes for various purposes. The smallest is the two-foot-diameter flare-'chute used in *Canso* aircraft, and the largest will probably be the 67-foot-diameter recovery-'chute which may be introduced shortly along with powered target-drones.

The packing and maintenance of all Air Force parachutes are the responsibility of approximately 600 Safety Equipment Technicians. Parachutes have a normal life expectancy of seven years as life-saving

*Ejection-seat demonstration.*



devices, after which they are retired to a supply-dropping rôle. During their life parachutes are packed at least once every 60 days, and each packing is preceded by a 24-hour airing-period. The packing process takes approximately 15 minutes for a flare-'chute and up to an hour for a man-carrying parachute.

Parachutes for aircrew have progressed a long way from the closing days of the First World War, when the R.F.C.'s *Guardian Angel* was fastened underneath an aircraft and was opened by the weight of a falling body pulling on a static cord. In the R.C.A.F. today the



*Packing parachutes at a Safety Equipment Section.*

modern parachutes, with their automatic opening-devices, have advanced to such a state that it is no

longer true that "It doesn't mean a thing if you don't pull the ring."

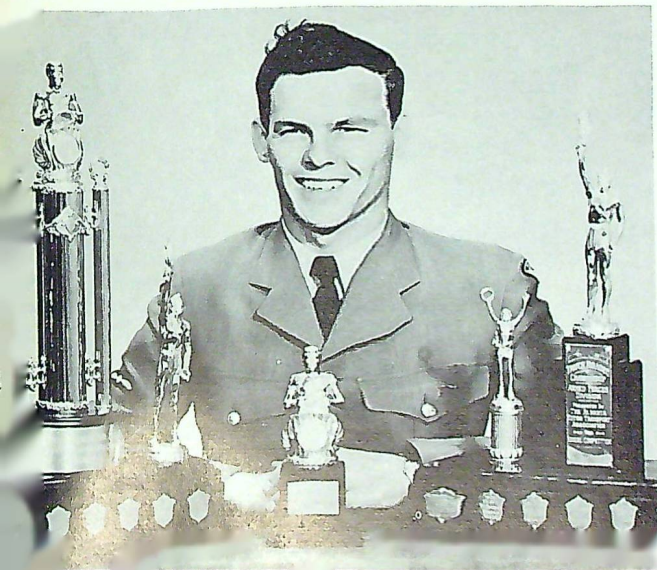
## Two Champions

SEATED behind two trophies which he won at the annual Alberta Motor Transport Association's Roadeo is Leading Aircraftman D. J. Plouffe, of Tactical Air Command, Edmonton. On the left of the photograph is the trophy of the R.C.A.F. Safe and Skilled Driving Competition, for which most units in Alberta, as well as Station Whitehorse, competed. This trophy will

remain at the Mobile Equipment Section, Edmonton, for one year while the miniature of it (centre) is for its winner's retention. The trophy on the right is competed for, by the Canadian Army's Western Command and Alberta's R.C.A.F. units, in the Truck Roadeo Championship, Armed Services Division.

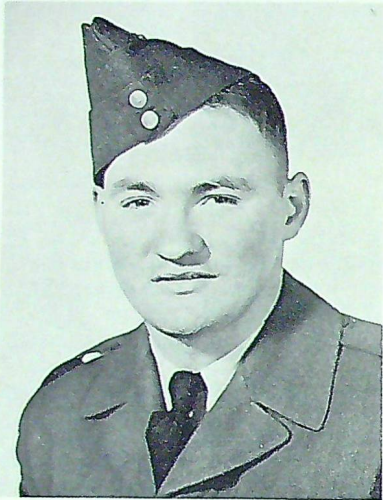
Our other photograph shows

L.A.C. A. M. Smart, of Station Vancouver; Carol Lucas, Miss Pacific National Exhibition of 1957; and Group Captain D. R. Miller, A.F.C., Chief Staff Officer at No. 5 Air Division, Vancouver. Both L.A.C. Smart, winner of the British Columbia Inter-Service Safe and Skilled Driving Trophy, and L.A.C. Plouffe will compete in November's national competitions, in Toronto.



# The Suggestion Box

The Chief of the Air Staff has written personal letters of thanks to the undermentioned personnel for original suggestions which have been officially adopted by the R.C.A.F.



Corporal K. N. Beckman, of Station Winnipeg, put forward certain valuable suggestions concerning the replacement of steel bushings with neoprene bushings in *Expeditor* aircraft. (Cash award: \$328.95)



Flying Officer J. J. Connolly, of Station Beaverbank, designed an emergency safety pin for use with the seat-ejection mechanism on jet aircraft. (Cash award: \$150.00)



Flight Lieutenant J. G. Ford, of No. 1 Air Division, designed a voice-operated control scramble unit which enables a fighter controller at some distant location to scramble aircraft by talking to pilots sitting in their aircraft at readiness.

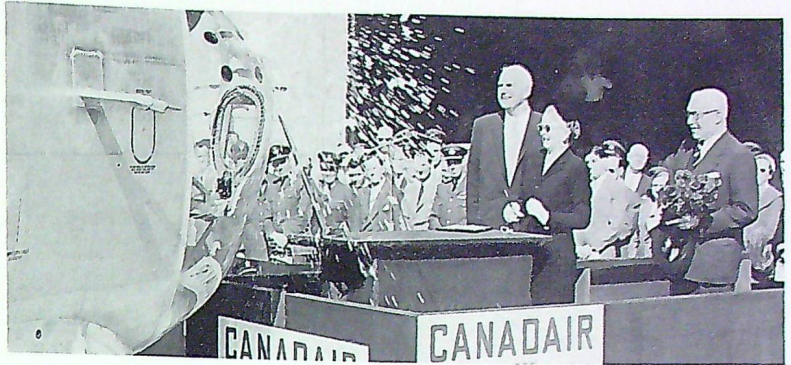
## OUR NOT-SO-YOUNG SERVICE

Given below are the compulsory retirement ages for officers as laid down in Regulations for the Canadian Air Force, 1920. Appearing after them in brackets are the retirement ages established for the R.C.A.F. today.

	<i>General List</i>	<i>Non-flying List</i>
Pilot Officer .....	30 (45)	30 (45)
Flying Officer .....	30 (45)	32 (45)
Flight Lieutenant .....	32 (45)	34 (47)
Squadron Leader .....	34 (47)	36 (49)
Wing Commander .....	36 (49)	38 (51)
Group Captain .....	38 (51)	40 (53)
Air Commodore .....	42 (53)	42 (55)
Air Vice-Marshal .....	44 (55)	44 (55)
Air Marshal .....	46 (55)	46 (55)

## ARGUS IS CHRISTENED

On 30 September, Mrs. Hugh Campbell, wife of the Chief of the Air Staff, cut the ribbon which launched the traditional bottle against the nose of the first *Argus* to go into service with the R.C.A.F. in its combined rôle of submarine-hunter and -destroyer. Standing beside Mrs. Campbell is Mr. J. G. Notman, president of Canadair Ltd., builders of the aircraft. The Hon. George R. Pearkes, Minister of National Defence, stands at the right of the picture.

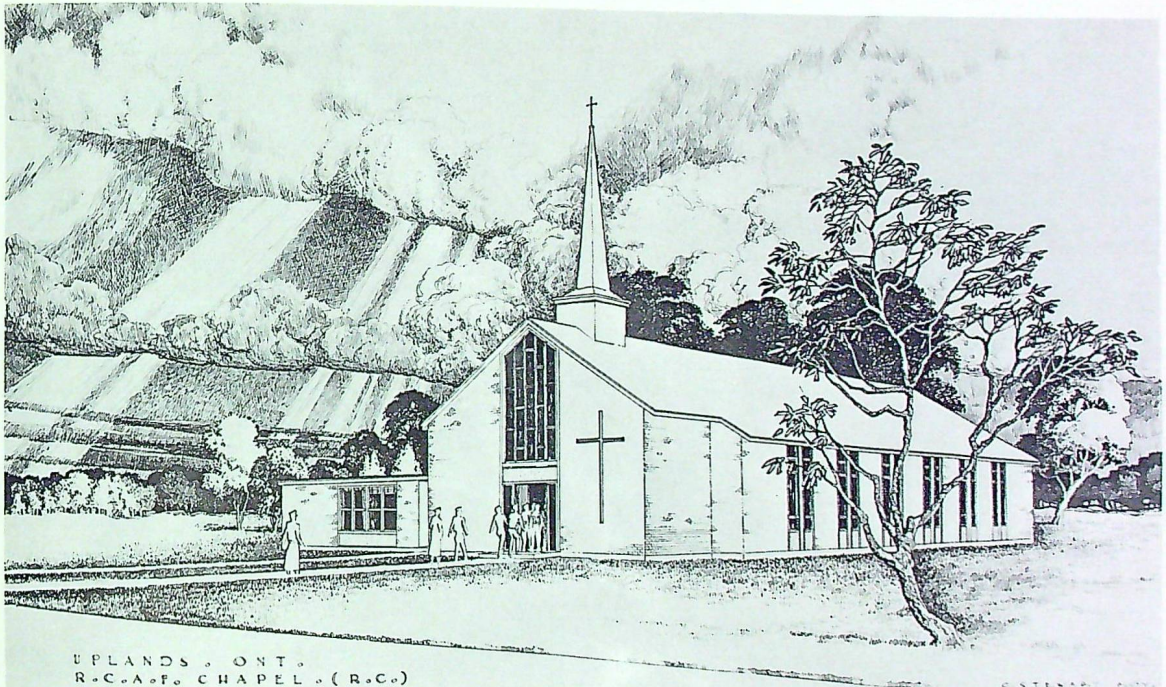


## The Same Man's Chapel

In our last issue, under the heading "One Man's Boiler-House", we published Warrant Officer C. S.

Roy's sketch of the heating-plant at R.C.A.F. Station Uplands. The Station's R. C. Chapel forms the

subject of the drawing shown here.



UPLANDS, ONT.  
R.C.A.F. CHAPEL (R.C.)



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

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

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

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

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

