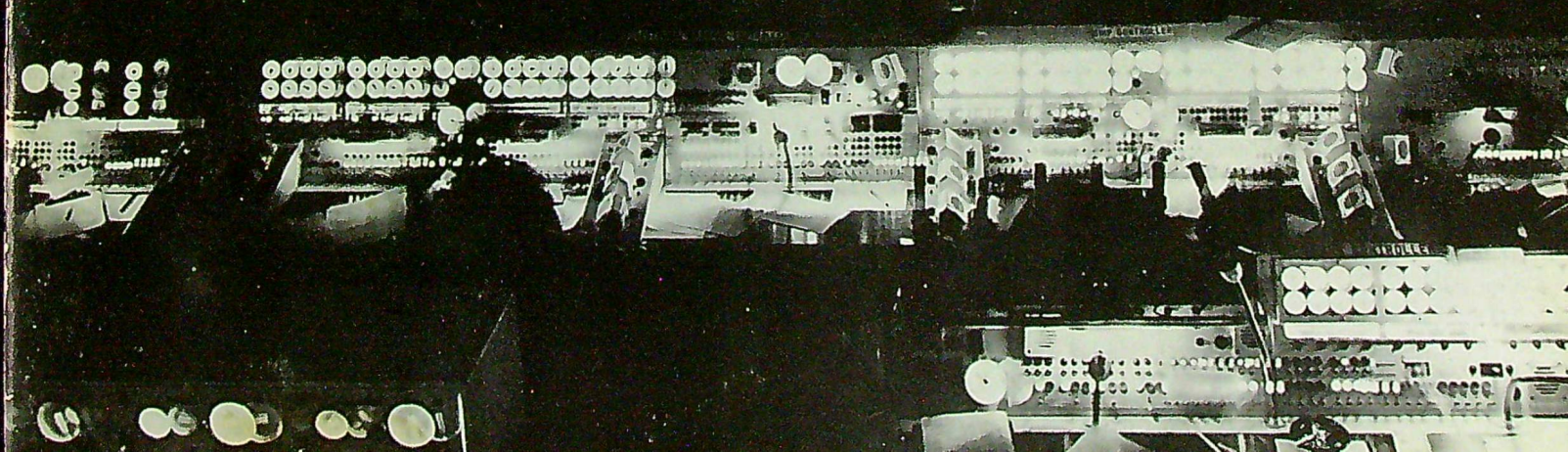
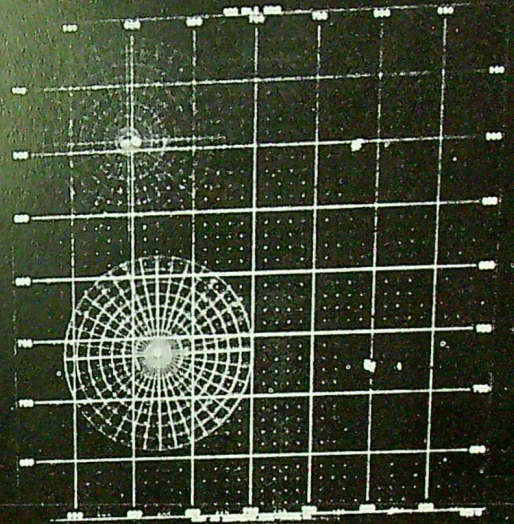


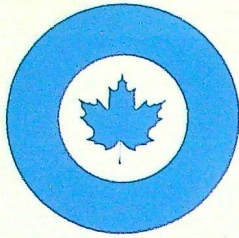
THE

Roundel

VOL. 13, NO. 8

OCTOBER 1961





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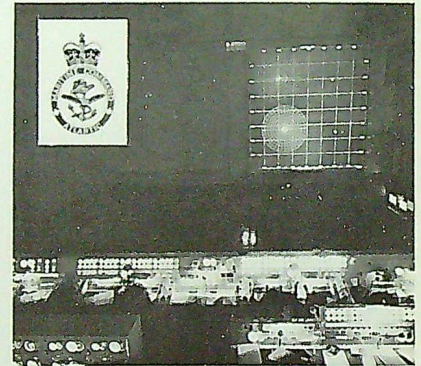
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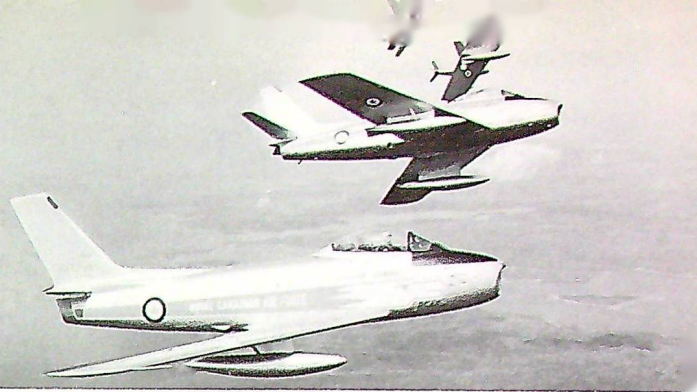


THIS MONTH'S COVER

The Joint Maritime Warfare School's Tactical Trainer in Halifax with the badge of Maritime Command (Atlantic) inset, serves to introduce this month's lead article (see page 2).

Views expressed in THE ROUNDDEL are those of the writers expressing them. They do not necessarily reflect the official opinions of the Royal Canadian Air Force.

On The Break



WHAT'S the largest station in the RCAF today? Trenton, Uplands, Winnipeg, Cold Lake? It surprised us to find that Greenwood heads the list by a slim margin. Indeed, with the population of its married quarters added, RCAF Station Greenwood ranks as one of the larger communities in the whole of the Maritimes.

It's doubtful if any other maritimers, even the deep-sea fishermen, travel as far in a month as do many of Greenwood's residents during a day's work. *Argus* crews literally roam the world from this base located in the heart of Nova Scotia's beautiful Annapolis Valley. To them, the North Atlantic Ocean is as familiar as main street.

The origin and evolution of Maritime Air Command, told by the man who today heads that force, begins on page 2. It is an exciting story, dating back to the earliest days of military flying in Canada, recalling the rum-running era of the '30s and the Battle of the Atlantic. On the west coast equipped with the *Neptune*, and on the east with the *Argus*, MAC is now a maritime force qualitatively second to none, working in close cooperation with naval forces to protect the sea approaches to North America.

ANOTHER example of inter-service teamwork this month is our station story. CJATC Rivers (page 10) specializes in tri-service training, described by a man who earned his navigator's wings there during wartime and returned years later as chief administrative officer. In the interval S/L Heide was twice missing in enemy territory, during one and a half tours on torpedo operations in the Middle East; pursued specialist navigation work after the war. This is his fourth *ROUNDEL* contribution.

Incidentally, we're wide open for suggestions as to which stations you'd like to see covered in this series in future issues. Station Chatham is slated for *Roundelization* next.

IN the early days of flying, the testing of new aircraft was a relatively simple process since the aircraft themselves were comparatively uncomplicated. Today, it is a long, extremely involved task — which is only natural when one considers the complexity of a modern flying

machine. But the cost is negligible compared to the lives and money that would be wasted if an unproven aircraft was lost in flight.

Some idea of the check-out program which must be completed before our newest and biggest transport aircraft goes into operational service is given in the article on page 18. During his research the author scrounged a ride on one of the test flights, proudly claiming to be one of the first editors ever to handle the controls of the *Yukon*.

RCAF personnel serving overseas have many opportunities to participate in activities virtually unknown in Canada. The sport of gliding (or perhaps more precisely, soaring) is a good example. In West Germany alone there are 570 gliding clubs, whereas there are only 75 in the whole of Canada.

On page 25 an airman currently stationed in No. 1 Air Division describes his recent attempt to obtain a coveted "Silver C", which incidentally seems like a mighty fine way to meet the local populace. We're especially pleased to publish this article by LAC Klinge because it proves there are still some airmen in the air force who can write. It is not by choice that most of our by-lines go to officers — it is just that we get so few contributions from "the boys in the field".

STILL one of the most common comments we hear from airmen and officers alike is, "I haven't seen a copy of *THE ROUNDEL* for months!" We realize in-service distribution, based on a 1 for 10 ratio, isn't the most satisfactory method of spreading this gospel but the editorial staff is powerless to do much about that.

While we're not in the selling business (and the Queen's Printer doesn't give us any commission), we do confess to a desire for as wide a regular force readership as possible, and therefore pass along this hint: why not take out a personal subscription? For two dollars you'll be kept posted on what the rest of the RCAF is doing and you'll get the latest issue promptly 10 times a year.

At Paton s/p

Editor

The Evolution and Current Status of . . .

MARITIME AIR COMMAND



By AIR COMMODORE W. I. CLEMENTS, OBE
Air Officer Commanding, Maritime Air Command



NOVA SCOTIA is well known as the birthplace of aviation in Canada.* What is not so well known, however, is that the first wartime operational flight in Canada also took place in Nova Scotia. That historic flight, on 25 August 1918, was in a maritime role. Following this auspicious start maritime duties for Canada's fliers had two periods of serious decline. Today, the RCAF's Maritime Air Command operates what is generally considered to be the world's finest maritime patrol aircraft, on both national defence operations and international commitments.

In June 1918, at the suggestion of the British Admiralty, the Canadian Government agreed to establish two air stations, one near Halifax (Dartmouth) and one near Sydney, N.S., for anti-submarine operations to be carried out by a Royal Canadian Naval Air Service. Cadets for the RCNAS were sent to the US and the UK for training, and meanwhile the US Naval Flying Corps undertook

the responsibility of carrying out convoy patrols. Thus it was an American HS2L flying boat which made the pioneering maritime flight in Canada. The First World War ended before the Canadian navy fliers had completed their courses and the embryonic RCNAS was disbanded in December 1918.

In 1919 the Canadian Air Board was formed to control all aeronautics in Canada. Dartmouth Air Station, which had been on a care and maintenance basis, was handed over to this board in 1920. The Canadian Air Force was established that same year on a non-permanent basis. In 1922 the transition to a permanent status commenced and on 1 April 1924 the Royal Canadian Air Force came into being. At that time it had six air stations, with Dartmouth being the only one east of Ottawa.

On the west coast, a seaplane base was established at Jericho Beach, near Vancouver, in the summer of 1920. Operating HS2L flying boats, the station was most active on fishery and anti-smuggling patrols, as well as the photographic and forestry operations which were the chief

raison d'être of the air force in the '20s and early '30s. The base became the seaplane training centre of Canada, and here in 1925 was formed the first No. 1 Squadron RCAF. In 1936 the Department of Transport took over most of the civil operations hitherto carried on by the RCAF, but this did not diminish Jericho's value. By that time it was the base for the first flying boat squadron of the RCAF, No. 4 Squadron, flying Vickers *Vancover*s.

From the end of the First World War until 1932 the only strictly maritime operations on the east coast consisted of a few co-operation exercises with the RCN. In 1932 customs preventive operations (patrols carried out from Rimouski to the mouth of the St. Lawrence, over the Gulf of St. Lawrence, off the coast of Nova Scotia and over the Bay of Fundy) were started to support the RCMP in their efforts to stop the smuggling of liquor into Canada. These patrols were flown from 1932 to 1936. At first the aircraft and personnel came down from Ottawa each May and returned in October but, in 1934, Dartmouth Air Station was

* Hon. A/C J. D. McCurdy, who flew the *Silver Dart* at Baddeck on 23 Feb. 1909, was buried at Montreal with full military honours on 28 June 1961.



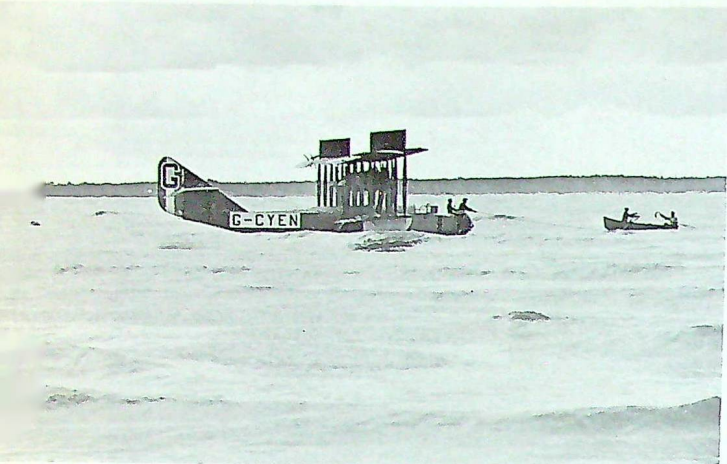
RCAF Stn Dartmouth in the mid-1920s.

re-opened as a permanent base to accommodate No. 5 (Flying Boat) Squadron which was formed from the personnel and aircraft on the preventive operations. Dartmouth has remained as a permanent military station, although it became known as HMCS Shearwater when taken over by the RCN in December 1948.

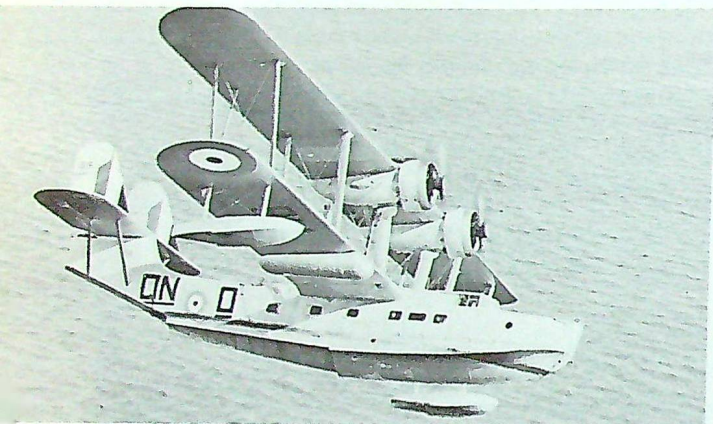
In 1937, as a result of the increasingly serious situation in Europe, the RCAF began a rapid expansion and turned its attention more and more to straight military training. Dartmouth, which had been only a seaplane base in the past, was expanded in order to handle land planes. Sites for new airfields were selected at Yarmouth, Sydney and Truro. Development work commenced in 1938 and was still going on when war broke out in September 1939. On 15 September 1938 Eastern Air Command was formed, under G/C (later A/V/M) N. R. Anderson with headquarters in Halifax. It faced its first emergency situation, the "Munich Crisis", before the month was over. Two squadrons, No. 2 (Army Co-operation) and No. 3 (Bomber), flew



RCAF Stn Vancouver (Jericho Beach) circ. 1930.

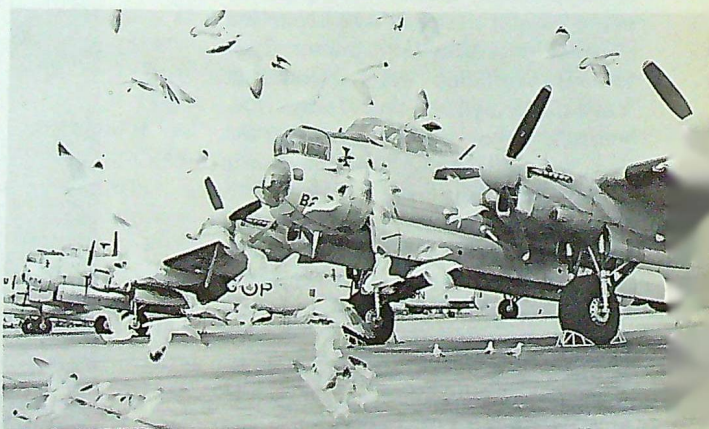


Mooring an F-3 or launching a homing pigeon were common tasks for pioneer maritime aircrew.



Stranraer flying boat was replaced by Canso amphibian on coastal patrol in 1943.

Land-based Ventura gave way to converted Lancaster heavy bomber on post-war maritime duties.



from Ottawa to Halifax to join the command but went back almost immediately after Mr. Chamberlain returned to London with his forecast of "peace in our time".

SECOND WORLD WAR

During late August and early September 1939 three squadrons from other parts of Canada joined the command and when Canada declared war on Germany EAC consisted of four operational squadrons, a repair depot, an equipment depot and a magazine or explosives depot. Of the four squadrons, one was equipped with the *Atlas*, another with the *Wapiti*, another with the *Delta*, and the fourth with the *Stranraer* flying boat, the only type in the command that had been designed for the maritime role and that was also a relatively modern operational aircraft.

Fortunately, German submarines did not appear in any numbers off the Atlantic Coast for more than two years. During this period new stations were brought into use, new squadrons formed and new aircraft received. When the time came, the command was ready. From the beginning patrols were flown, day and night, out over the Atlantic providing protection for convoys and searching for submarines. By the end of the war a total of 83 attacks had been made, six submarines had been confirmed as sunk and many others had been damaged. The command reached its maximum strength in 1943 with 18 squadrons—of which 11 were bomber reconnaissance or, in modern terminology, maritime squadrons. The others were four fighter, one transport, one composite and one communications squadrons.

POST-WAR ERA

At the beginning of 1945 there were 11 squadrons in the command. Following VE Day on 8 May 1945 these started to disband and by the end of September 1945 there was not one squadron left. Eastern Air Com-

mand remained in existence on a nucleus basis until 28 February 1947 when it was disbanded and replaced by No. 10 Group under a newly formed Central Air Command which had its headquarters in Trenton, Ontario. The main flying activities in the group were search and rescue and communications.

During 1947 and 1948, as the international situation deteriorated, the Canadian government decided to strengthen its defence forces. One of the decisions made was that the RCAF would re-enter the maritime field. *Lancasters*, Second World War bombers, were brought out of storage and modified for use as maritime patrol aircraft.

On 1 April 1949 No. 10 Group was re-designated Maritime Group. On 1 November 1949 No. 2 (Maritime) Operational Training Unit was formed and this was followed by the formation of No. 405 (Maritime Patrol) Squadron on 31 March 1950 and No. 404 (MP) Squadron on 30 April 1951, both at Greenwood, and by No. 407 (MP) Squadron at Comox, B.C., on 1 July 1952. All three squadrons and the OTU were originally equipped with *Lancasters*.

On 4 April 1949 the North Atlantic Treaty had been signed and the subsequent military organization created the North Atlantic Ocean Regional Planning Group, replaced later by the Atlantic Command, with its headquarters being activated and the first Supreme Allied Commander Atlantic (SACLANT) taking up his duties on 10 April 1952 at Norfolk, Va. One of the contributions that Canada had agreed to make to NATO was the provision of land based maritime patrol aircraft and thus, Maritime Group became part of the NATO Atlantic Command.

In February 1954, after a long and exhaustive study, it was announced that *Neptune* and *Argus* aircraft were to be acquired to replace the *Lancaster*. Twenty five *Neptunes* were ordered. The first arrived at Greenwood on 30 March 1955 and the re-

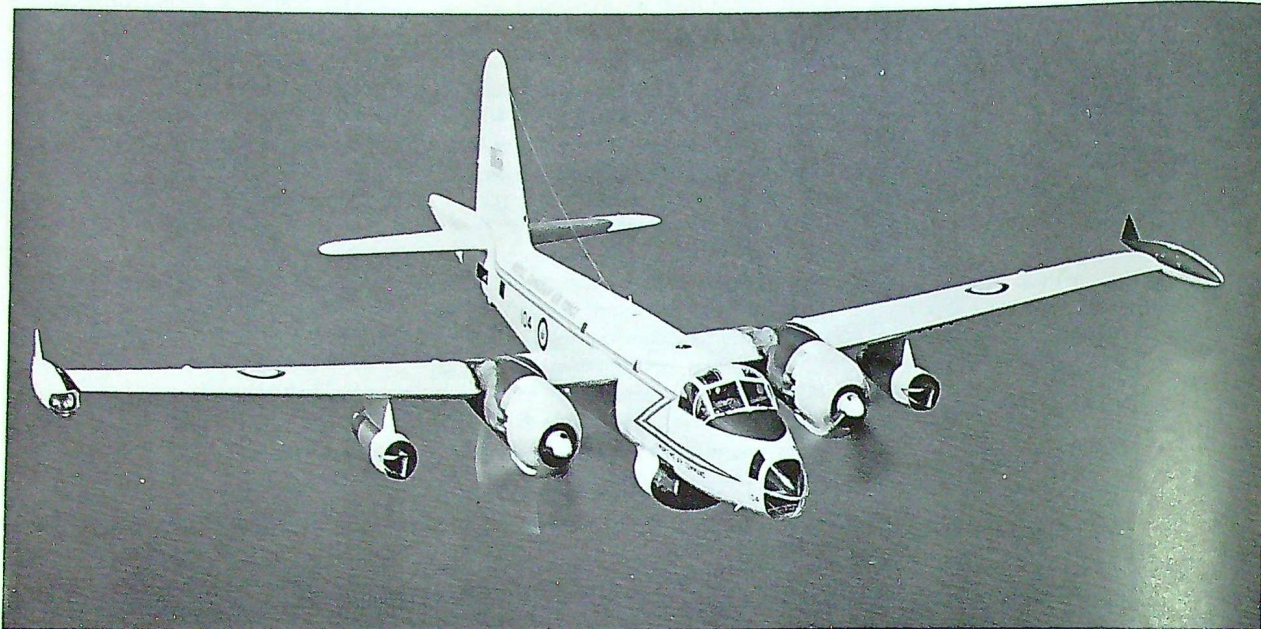
mainder followed along throughout the year. Thirty three *Argus* were ordered. Greenwood received its first on 1 May 1958 and the 33rd and final one off the production line was delivered on 7 October 1960.

ORGANIZATION

During the Second World War and up until 1955 the responsibility for maritime operations was held jointly between the Flag Officer and the Air Officer Commanding. Late in 1955 the Chiefs of Staff Committee decided that there should be, on both the Atlantic and Pacific Coasts, one commander with a unified staff to exercise operational control over those naval ships and aircraft and air force maritime patrol aircraft assigned to the commander by the Chiefs of Staff Committee.

Although a Maritime Commander was appointed on each coast in 1956, it was not until mid-1959 that staffs were supplied, accommodation made available and the two command headquarters commenced to function. It should be explained that Maritime Air Command, or Eastern Air Command as it was called at the time, had no responsibility for maritime operations on the Pacific coast during the Second World War. The large number of bases and squadrons at that time justified a separate command, Western Air Command, which was disbanded on 1 March 1947. Later when No. 407 Squadron was formed at Comox it was placed under operational control of Maritime Air Command.

In Halifax there are three commanders, each with his own headquarters, who have responsibilities in the maritime field. The first is the operational commander who has three jobs. In the Canadian national role he is the Maritime Commander Atlantic; in the NATO role he is the Commander Canadian Atlantic Sub-Area, concerned primarily with protection of shipping; and finally he is also the commander of a task group, concerned with the defence of



Pacific patrol and operational training are done today in this latest version of time-tested *Neptune*.

coastal and inland regions against enemy missile-launching submarines.

This commander has a completely integrated RCN/RCAF staff and the same staff supports the commands in each of his three jobs. It should be emphasized that each is primarily responsible for operational control of the forces assigned—in the national role by the Canadian Chiefs of Staff Committee and in the NATO roles by SACLANT. The other two commanders are the Air Officer Commanding (AOC) Maritime Air Command RCAF, and the Flag Officer Atlantic Coast (FOAC), who commands the Atlantic Command RCN. In actual practice, in the interests of economy, the admiral who is FOAC is also the Maritime Commander, the Commander Canadian Atlantic Sub-Area and the Task Group Commander and the air commodore who is AOC is also the deputy in each case. The AOC and the FOAC are responsible for all aspects of command, other than

operational control, of their respective assigned forces; that is, personnel and administration, logistic support and training.

No. 407 Squadron at Comox comes under the Maritime Commander Pacific for operational control and under the AOC, MAC for all other aspects of command. For obvious reasons, it would not be possible for the AOC in Halifax to be the Deputy Maritime Commander at Esquimalt and the Maritime Commander Pacific has another air commodore on his staff as his deputy.

This organization at first glance appears rather complicated. However, in practice it is quite straightforward and has resulted in the best understanding and working arrangements that have ever existed between the RCN and the RCAF in the maritime field.

CURRENT OPERATIONS

Anti-submarine patrols are flown regularly by crews of Maritime Air Command, over the Atlantic in the

Argus and over the Pacific in the *Neptune*.

The *Argus* is the best land-based maritime patrol aircraft in use anywhere in the world at the present time. In order to maintain crew efficiency during long patrols, adequate provision has been made for crew rest and in-flight feeding. Four berths, sleeperette seats, a dining table for four and a galley which includes two hot plates, an oven, a refrigerator, an electric fry-pan and pop-up toaster, are standard equipment.

Included in the types of detection and localization devices installed or planned for installation are:

- radar receiver — for receiving emanations from submarine radars and by this, determining the submarines' positions;
- sonobuoy — a cylinder which is dropped from the aircraft into the water. It picks up underwater sounds and transmits them by radio back to the aircraft;
- explosive echo ranging — small explosive charges are dropped near the sonobuoys. If the sound energy strikes a



Atlantic operations are conducted in this Canadian-produced Argus, world's best airborne sub-killer.

submarine it is reflected back to the sonobuoy.

- magnetic anomaly detection — basically, a magnetometer which detects the presence of a submerged submarine by indicating the local change in the earth's magnetic field produced by the mass of metal of the submarine;
- a 70 million candle power searchlight and three visual look-out positions — one in the nose and one on each side of the rear fuselage.

In order to make use of information from all these different systems, the tactical co-ordinator must have the information collected and displayed. This is done in the aircraft navigation and tactical control (ANTAC) system. This computes flight information received from the navigation sub-systems and provides a continuous display of the aircraft's position and heading. At the same time it receives information from the radar, sonobuoy and other system operators and displays this automatically on the plot. From this the co-ordinator can establish the required tactics and information, as applicable, is passed to crew mem-

bers; for example, to an instrument in front of the pilot which shows him course to steer and distance to the target, to an instrument in front of the radio operator which constantly shows him latitude and longitude and so on.

After the initial detection of a submarine and the following phase of localizing or pin-pointing it, comes the attack. The two weapons bays carry a total of 8000 pounds which can consist of various combinations of active and passive homing torpedoes and depth charges. In addition, provision is made for carrying up to 3800 pounds under each wing. This may consist of air-to-air, air-to-surface or air-to-underwater weapons.

The *Neptune* is also a fine maritime patrol aircraft. It has a longer history and is in much wider use than the *Argus*. The first order for the *Neptune* was placed by the USN in 1944 and development has gone through seven different versions, the

latest version being the one in use in MAC.

This aircraft is equipped with much the same detection and localization devices as the *Argus*. The chief differences are that it has a shorter range and endurance, it is less spacious and thus does not provide the same crew comfort on long patrols and it carries a smaller weapons load.

CONSTANT TRAINING

New aircrew, on first arrival in the command, proceed to the Operational Training Unit at Summerside where they take a course of four months duration and receive their basic training on maritime operations. From here, those going to No. 407 Squadron, which uses *Nep-tunes*, are transferred directly to the squadron. Those going to an *Argus* squadron take a further eight weeks training at the Argus Conversion Unit. Once at the squadrons the aircrew find their flying divided into

continuation training in which a laid-down program is followed, in exercises and operations.

Each year a series of exercises is held, some national in which only Canadian naval and air force units participate, some in which Canadian and American or Canadian and British units participate and some SACLANT and NATO in which naval and air forces of numerous nations take part. In the event of a war the RCAF *Argus* and *Neptune* aircraft which would be assigned to SACLANT might be deployed by him to any of the SACLANT maritime patrol bases around the North Atlantic to meet the operational situation. In peacetime, these aircraft may be diverted to other bases when on patrol or on training exercises due to engine failures, weather at base, etc. It is therefore important that the aircrews obtain a knowledge of those bases by paying visits to them.

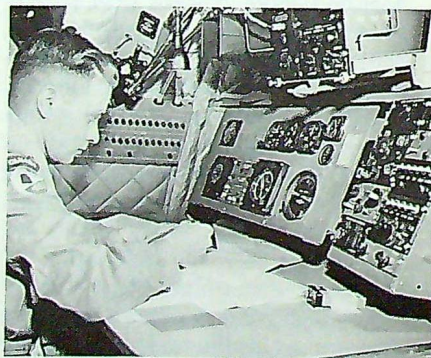
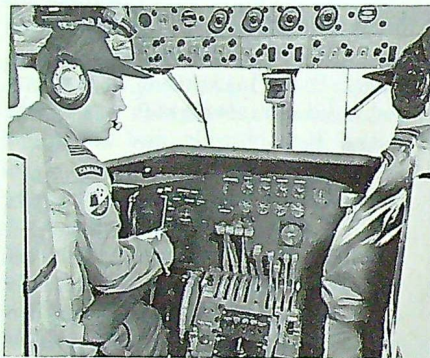
This experience is obtained in several ways. Training exercises are carried out, at the end of which the aircraft land at foreign bases: Bermuda, Azores, Gibraltar or Iceland. Exchange visits are made by single aircraft from MAC and RAF Coastal Command squadrons and MAC and USN squadrons. During major exercises aircraft from MAC are sometimes deployed to foreign bases, for example, Kinloss in Scotland and Jacksonville in Florida. On the west coast the same type of exchange program is carried out with the USN and deployment during exercises includes Hawaii and USN bases on the Pacific Coast.

The maritime forces, both RCN and RCAF, which Canada has earmarked for assignment to SACLANT in time of emergency form part of the deterrent force in that they participate in the protection of the retaliatory bases of the USAF's Stra-

tegic Air Command. One of the means of attacking these bases, as well as other targets in North America, is with missiles launched from submarines. It is obviously important, therefore, to know of the activities of unfriendly submarines off Canadian coasts in peacetime and to be ready for immediate action in case of a sudden attack.

For these reasons aircraft and ships make frequent patrols off the west coast and on the east coast aircraft and ships have been on patrol 24 hours a day, with very few breaks, since 1959. This continuous round-the-clock operation, carried out during a period of build-up in aircraft and personnel and before sufficient hangar space was available for maintenance, required a tremendous effort on the part of all concerned, both aircrew and groundcrew. For the aircrew it has meant long hours of flying day and night in almost

Argus carries a crew of 15 anti-submarine specialists.



every type of weather that could be called "flyable". To get the best results from the various detection devices, the altitudes flown normally vary between 50 and 1500 feet. Those who are familiar with North Atlantic weather will have an idea of the degree of air turbulence frequently existing at these low altitudes.

By 1962 MAC will reach its planned status. The expansion program for Greenwood and Summerside, which included modified cantilever hangars, anti-corrosion and readiness hangars, lengthening and widening runways, new explosives storage, fuel storage, additional single and married accommodation and other facilities, is now well advanced with the major portion being completed. The personnel expansion which started in 1958 as the *Argus* began to arrive has resulted in a strength increase in the command of approximately 80 percent during this period

and is now almost up to its planned figure.

Although the *Argus* order has been completed and all 33 handed over to the RCAF they are not all in the command. A modification program is being carried out which will require a number to be constantly out of the command until late this year and the Central Experimental and Proving Establishment have others which they are using for completion of tests and evaluation. New detection devices and new or improved weapons have been or are being developed by Canada, the US, the UK and other NATO countries. Some of these have already been approved for installation in MAC aircraft and all are being kept under review. Fortunately, the *Argus* has the space and weight-carrying capacity to accept new equipment or weapons as they come along.

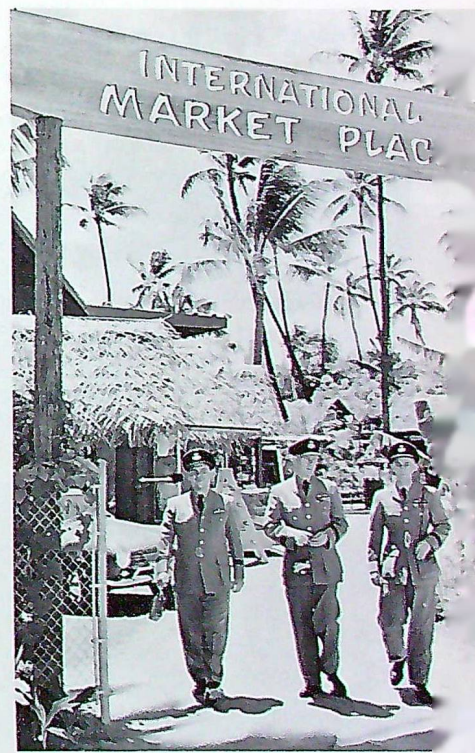
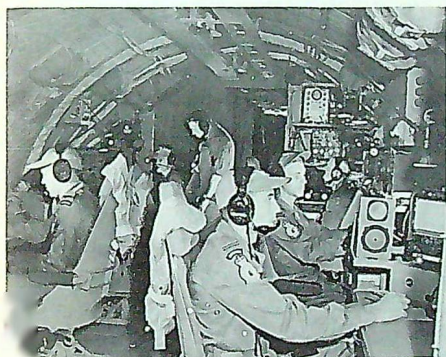
HALIFAX N.S. — MACHQ

RCAF Stn Greenwood
 No. 404 (MP) Sqn. (*Argus*)
 No. 405 (MP) Sqn. (*Argus*)
 No. 103 Rescue Unit (*Albatross, Otter, Helicopter, Dakota.*)
 Argus Conversion Unit (*Argus*)
 No. 9 Field Technical Training Unit.

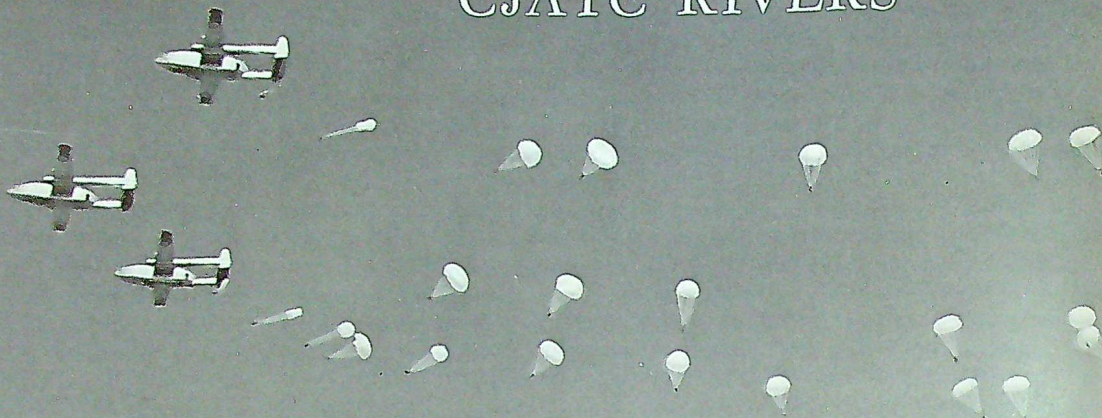
RCAF Stn Summerside
 No. 415 (MP) Sqn. (*Argus*)
 No. 2 (Maritime) Operational Training Unit (*Neptune*)
 Maritime Proving and Evaluation Unit. (*Neptune, Argus*)

RCAF Stn Torbay
 No. 107 Rescue Unit (*Lancaster*)
 Lodger unit, RCAF Stn Comox
 No. 407 (MP) Sqn. (*Neptune*)

Lodger unit, RCN Air Stn Shearwater
 No. 101 Composite Unit (*Dakota, Expedito*)



Stations of the RCAF: CJATC RIVERS



By SQUADRON LEADER C. L. HEIDE, DFC

As a practical example of service integration, the Canadian Joint Air Training Centre at Rivers, Manitoba, is living proof that the colour of the uniform a man wears is really immaterial when it comes to getting the job done. Permanent strength of 800 servicemen at CJATC is about one-half RCAF and one-half Army. Except for two months each summer when naval jet squadrons come to Rivers for tactical exercises, RCN strength is only a token force — but “blue jobs” and “brown jobs” work and live together in complete harmony the year-round.*

* All potential military aircrew today begin their flying careers by reporting to the Personnel Selection Unit at RCAF Stn Centralia for screening. The successful candidates then proceed to Primary Training School, also at Centralia, where they set out on diverging courses. Formerly army fliers received a basic course of 60 hours on the *Chipmunk* prior to proceeding to advanced flying at CJATC on the L-19. Last month army trainees began a new course at Centralia, calling for over 130

During the war years RCAF Station Rivers was the home of No. 1 Air Navigation School and many fledgling navigators of the RAF and RCAF were trained here, sometimes under rather severe conditions. The author vividly remembers taking astro sights in mid-winter when one’s fingers gradually lost their mobility and the sextant mechanism slowly froze in sub-zero temperatures. It was little better when airborne in the *Anson* aircraft, which seemed at the time to have small holes strategically placed for the bitter winter wind to have maximum effect.

flying hours including L-19 conversion, and will graduate from there with army wings before going to CJATC. The air force and navy trainees take the standard six-week course, then take the regular RCAF course to the end of *Harvard* training at Flying Training School and proceed to *Expeditor* training at Advanced Flying School in Saskatoon. Navy fliers receive their wings and instrument rating at AFS, then go to HMCS Shearwater for operational training.

Even in those early days, Rivers had an association with the Army because of the proximity of the large Camp Shilo training base. In fact, the first army parachutists to jump in Canada flew from Rivers in June 1943 in a *Lodestar* aircraft to “drop” at Camp Shilo. They had been trained in England and the United States.

After the Second World War the Air Navigation School was disbanded and Station Rivers was temporarily closed.

In October 1945 a plan for Army/Air activities in Canada resulted in the formation of No. 1 Airborne Research and Development Centre located at Camp Shilo. By April 1947 sufficient progress had been made to permit the unit to be called the Joint Air School and it was moved from Camp Shilo to Rivers under the command of G/C M. G. Doyle. At this time No. 417 Fighter

Reconnaissance Squadron was operating with *Mustang* aircraft, No. 112 Flight was co-operating with gliders, and No. 444 Army Squadron was being formed with light aircraft. The joint school's function was to meet all requirements of training and development for the Canadian forces in tactical support of land and airborne operations. Royal Canadian Navy personnel were added to the school in August 1948.

A change in organization in March 1949 created the Joint Air Training Centre out of the elements of the Joint Air School. This organization is substantially the same today with the station being divided into Air Training, Technical, Administrative and Land/Air Warfare Wings. The station is under the command of G/C C. M. Black with Lt. Col. A. B. Stewart as deputy commandant.

THE AIRBORNE SCHOOL

The Airborne School trains the "glamour boys" of the Army — the paratroopers. The training of the

candidates is hard and vigorous and demands a high physical standard; in fact, a good portion of the course is devoted to their physical conditioning. After first learning how to roll on landing from elevated stands the students jump from the mock tower. From this 32 ft. high device the students are carried by sloping cables to the ground some distance away. Following this the potential paratroopers jump from the 150 ft. high tower at Camp Shilo which is a very realistic comparison to an actual aircraft jump. Ultimately, the paratroopers jump fully equipped from C-119 aircraft maintained at CJATC for this purpose.

In spite of somewhat caustic remarks by the "blue jobs" on the sanity of people who jump out of a serviceable aircraft, more than 13,000 paratroopers have been qualified by the airborne school since 1947. Including those made on advanced and instructors' courses, more than 100,000 jumps have been made at CJATC. A staff member, L/Sgt H. M. Allan, recently completed his 300th jump, which is believed

to be a record for the Canadian Army.

A somewhat different record was set by a student jumping from the high tower at Camp Shilo. On his first descent he landed on top of a lecture room; on his second descent he became entangled in the high tower structure; and on his third descent landed in a somewhat thick bush. However, he was not easily discouraged and eventually descended in the proper manner and completed his airborne training successfully.

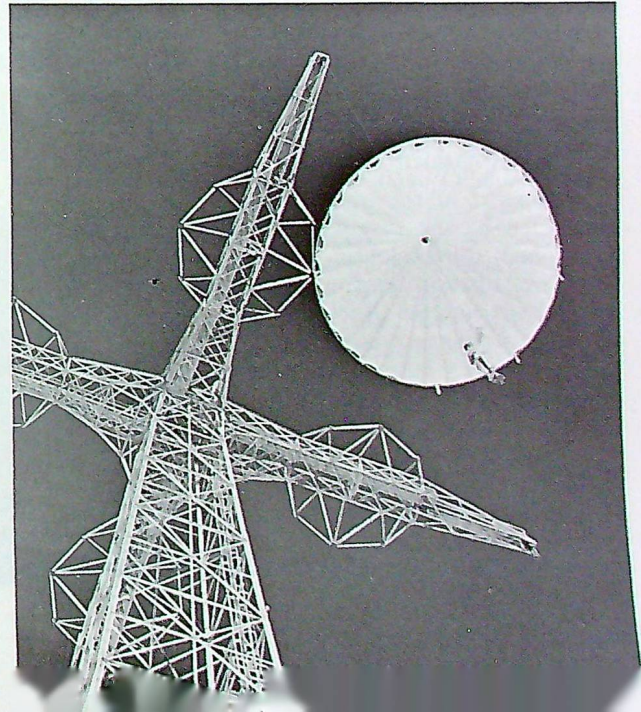
THE AIR SUPPLY SCHOOL

This school conducts a variety of courses designed to train army NCOs to supervise the loading of transport aircraft efficiently, to train both army and RCAF personnel in the basic aspects of air supply duties, and to train NCOs of all three services so that they may be employed as airportability instructors. Since the school was formed more than 5,500 students have been graduated.

The equipment being loaded and

Soldiers jump from this 32 ft. "mock tower" at Rivers before graduating to . . .

. . . this 150 ft. metal mast at Camp Shilo, then to actual paratroops from aircraft.





C-119 Flying Boxcars from CJATC.

dropped from C-119 aircraft varies from small loads to large heavy platforms weighing 6,000 pounds. Small loads are dropped from a monorail running the length of the C-119 fuselage and they drop with startling speed and efficiency. Jeeps and medium-sized vehicles are easily loaded and dropped through the large clam-shell doors of the C-119.

While the Air Supply School is now using C-119 aircraft, they are hard at work studying the loading, lashing and dropping problems associated with the new aircraft being introduced into Air Transport Command. The weight and balance problems in such a task are formidable, and a complete structural mock-up of the *Yukon* is to be built in the school for test and training purposes.

TECHNICAL AND TACTICAL INVESTIGATION SECTION

In support of the training being conducted by the two schools just mentioned, the Technical and Tactical Investigation Section are testers and advisors on all matters concerning airborne techniques and aerial delivery equipment. Many new pieces of equipment are evaluated by this section and many of the techniques now used in the delivery of both supplies and paratroopers have resulted from their work. From such small items as a snow shoe strap to prevent a parachutist losing

his snow shoes when jumping, to a method of delivering a RAT (rig articulated tractor), the projects vary in both size and complexity.

Some of the trials are conducted with startling realism. One item developed was a "hang-up" release kit designed to rescue a paratrooper "hung-up" behind an aircraft. After a 200-lb dummy was hurled from the door and towed behind a C-119 aircraft, it began to rotate in large circles, striking the tail boom a series of thunderous blows. The dispatcher was ordered to cut the anchor line cable and release the dummy, but since his assistant was attempting to connect the hang-up kit at this time, there was some doubt for a moment whether the dummy or the assistant dispatcher would be released from the aircraft. This item of safety equipment has

since been approved for Canadian use and is being studied with interest by other NATO countries.

In their trials and testing program the TTIS personnel fly many hours in C-119 aircraft, having completed more than 1,000 para jumps and many light and heavy equipment drops.

THE LAND/AIR WARFARE COMPONENT

Two separate but closely related schools form the Land/Air Warfare component, providing training in matters relating to the joint employment of naval, ground and air forces and to evolve techniques for the employment of such forces. In this task the schools are guided by the Land/Air Warfare Committee at AFHQ.

The Transport Air Support School trains officers and NCOs of the three services in duties associated with the air transport and aerial delivery of personnel, equipment and stores. Specifically they are concerned with the Canadian commitments in supplying, re-enforcing and moving our forces overseas. Six different types and levels of courses are conducted to accomplish this end.

The Tactical Air Support School trains officers and NCOs of the three services in those duties associated with the air support of ground forces and in particular the role of our forces within the NATO

L-19 on floats for army pilots.



organization. Courses conducted are for ground liaison officers, forward air controllers, and specialist tactical air support NCOs.

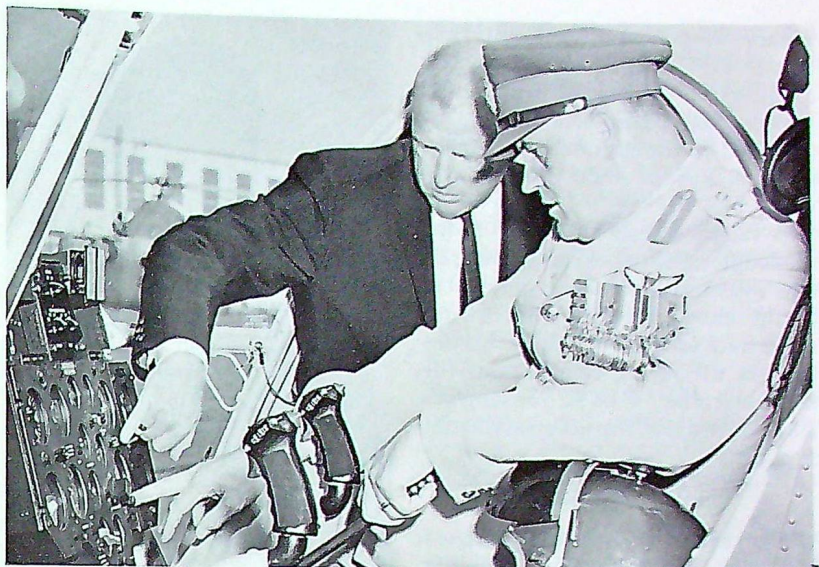
The schools join together in conducting both junior and senior land/air warfare courses for officers of the three services. These courses are broad in scope and consider both tactical and transport requirements in support of all types of joint operations. In addition, both schools provide teams of lecturers to travel across the country, lecturing to both army and air force units and commands. Also, when large army concentrations are formed each summer for training purposes, officers from the Land/Air Warfare School will usually be found in some of the key positions with the Joint Operation Centres.

LIGHT AIRCRAFT AND HELICOPTER TRAINING

Until quite recently, army pilots were trained to wings standard at the Light Aircraft School. Now they come here from Centralia to take operational training on the L-19 before returning to their Corps to fly light aircraft or converting to helicopters at CJATC.

There are at the moment some 140 Canadian Army officers qualified as pilots. The majority of these are members of the Royal Regiment of Canadian Artillery and of the Army Service Corps. Of this number, 115

H-5 helicopters for conversion training.



Last month Maj. Gen. J. V. Allard accepted on behalf of Canadian Army first CH-112 helicopter to arrive at Rivers.

have received their wings at CJATC. Units of the Canadian Army currently flying aircraft are three AOP Flights at Petawawa, Camp Shilo and one in Europe, with a fourth shortly to be added at Gagetown. They are all Royal Canadian Artillery Units.

The fully integrated Helicopter School has both RCAF and army instructors and students from all three services. The naval students have been few in the past but it is anticipated that their numbers will increase in the future. The primary task of the Helicopter School is the

conversion of fixed wing pilots to rotary wing aircraft using the Sikorsky H-5 and Bell H-13. Courses of eight weeks duration are conducted primarily to teach the fundamental skills of helicopter flying, the specialist training for operational roles being left to the OTUs. Army pilots are predominantly newly-qualified, whereas the RCAF pilots have normally had a broader background of fixed wing experience. It is probably true to say that, over a period of the last ten years, this school has produced more helicopter pilots than any other organization in Canada, either service or civilian. Qualified army and air force helicopter pilots come to the Helicopter School for continuation training. These pilots are kept current using the Bell H-13 aircraft. Also, an instructor training course is conducted for helicopter flying instructors.

This fall the school is being re-equipped with Hiller CH-112 helicopters. This new and increased capability will add to the amount of helicopter training at CJATC, particularly for the Army. In addition to the conversion of students to

rotary wing aircraft, a Light Helicopter OTU will be formed to train army pilots, many of whom will proceed as a complete unit to be attached to the ground forces operating in Europe under NATO control.

A variety of other tasks fall to the Helicopter School. Search and rescue missions have been conducted in the aid of civil authorities with some outstanding results. Each summer as the Army concentrates for field exercises, CJATC helicopters leave to provide the necessary aerial support.

NAVAL TRAINING

The yearly, or semi-yearly, arrival of a navy jet squadron is a welcome onslaught. In May 1961 VF-870 Squadron arrived from Shearwater, Nova Scotia, with six *Banshee* aircraft and one T-33 for a month of joint tactical training exercises.

In support of these aircraft, and of the 10 officers and 90 men concerned, a mass of material was airlifted into CJATC by the RCAF. The *Banshee* aircraft carried out live bombing and strafing exercises with guns and rockets, often under Army control in simulated ground attack operations.

It is at these times that CJATC becomes fully a tri-service unit. The harmony and co-operation reflected at these times gives a feeling of satisfaction to all concerned and



G/C C. M. Black,
CJATC Commandant.

leaves no doubt that the colour of uniform makes no difference in the successful conduct of combined operations.

SUPPORTING UNITS

In support of tactical operational training the Tactical Fighter Flight flies six T-33 aircraft. Not only are these aircraft converted to carry full armament, but four of them have been converted to carry cameras for photograph reconnaissance work.

In support of the ground liaison officers' course the aircraft use a weapons firing range at Camp Shilo



Lt. Col. A. B. Stewart,
Deputy Commandant.

and in live firing demonstrations fire guns, rockets and drop napalm. The aircraft are also called upon by the Army during summer concentration exercises to provide tactical air support for forces in the field. In addition, the Tactical Fighter Flight has supported the Defence Research Board at their Suffield establishment on numerous occasions, carrying out a variety of tests.

With four C-119 aircraft the Transport Support Flight provides the aircraft necessary for both parachutist training and for air supply and air transportability training. Also, the Tactical and Technical Investigation Section use these aircraft for their project work and continuation training is carried out for both Army and RCAF personnel. When not fully committed at home, the aircraft are placed at the disposal of Air Transport Command and are used for special and routine transport flights.

The aircrew, therefore, must be fully conversant not only with the techniques involved in dropping paratroopers and heavy supply equipment but with the standard procedures required by all Air

Banshees for navy jet jockies.



Transport Command crews who may be called upon to fly into the far northern areas of Canada, and indeed to anywhere in the world.

For example, one task which has often been given to CJATC C-119 aircraft is to fly on the re-supply of the Arctic weather stations from both Resolute Bay and Thule. The performance of these aircraft on the re-supply missions named Box Top II and III set an enviable record.

The Technical Wing is predominantly RCAF-manned. It provides maintenance for the aircraft, construction engineering, supply, telecommunications and armament and is analogous to similar organizations on most other RCAF stations. However, one exception is in the assistance being provided to army technicians in training them to maintain their own light aircraft and helicopters. At the moment army technicians are carrying out this maintenance with the assistance and guidance of RCAF technicians and with the use of associated RCAF facilities such as workshops. Eventually



the Army will take over maintenance of their own aircraft completely and army aircraft units in the field in both Canada and Europe will be maintained solely by army technicians.

The Administrative Wing is fully Army/RCAF integrated and whether to abide by AFROs or CAOs is sometimes a source of great discussion. The station hospital is an army detachment, but both padres are RCAF; light transportation is pro-

vided by an army detachment, but heavy vehicles are provided by the RCAF; separate personnel staffs are maintained by both services.

Being in a semi-isolated location, CJATC is faced with providing many of the community and recreation facilities that would normally be found in urban areas. Nearly all forms of sport and recreation are catered to. Summer activities include a swimming pool and a nine-hole golf course on the station. Winter activities feature all forms of indoor and outdoor sports including a four-sheet curling rink, to which it is anticipated artificial ice will be added this year.

In the Second World War a badge comprising an anchor, an eagle and a rifle signified joint operations. In peacetime, no such badge exists. Nevertheless, splendid co-operation does exist between Canada's three armed services in the field of aviation. To signify this union, the official crest of CJATC Rivers shows three links of a triangle coloured dark blue, red and light blue and the motto "Serving Together". ☉

JOINS SELECT LONG-SERVICE GROUP

Group Captain W. H. Schroeder, OBE, chief staff officer (administration) at ATCHQ, is the seventh person to have received the second clasp to the Canadian Forces Decoration. The award represents 32 years of uninterrupted service.

Of the other six who have won this long-service award, only two are still on active duty. They are A/M C. R. Slemon and acting A/M C. R. Dunlap.



A/C R. J. Lane, Air Officer Commanding Air Transport Command, pins second clasp to G/C Schroeder's CD.

RCAF STATION BEAUSEJOUR

The RCAF this month officially took over the first of 11 American-manned Pinetree System radar sites in Canada. It was the USAF base at Beausejour, Man., about 60 miles east of Winnipeg, and its new commanding officer is S/L M. B. C. Anderson.

Other American-manned units to be taken over by the RCAF during the next two years, under the Canadian-US agreement which brings 66 CF-101B interceptors to replace CF-100s in five RCAF squadrons, are: Kamloops, Puntzi, Baldy Hughes and Saskatoon Mountain, B.C.; Raymore, Sioux Lookout, Armstrong, Pagwa and Lowther, Ont.; and Barrington, N.S.

One Solution to the Surplus CF-100 Problem

By SQUADRON LEADER JACK MOFFAT

I DOUBT if the Suggestion Award Committee has considered my submission yet, but in case it gets lost in the rush, here's my idea on what to do with the CF-100s soon to be retired from service.

I know something about suggestions. In fact, I'm a self-styled expert. Of the hundreds I conceive yearly, none has ever been accepted. I am therefore an expert on what not to suggest, and such knowledge can save many people a lot of thinking time.

For instance, lately I have been giving the surplus CF-100 problem top off-duty priority. I have waded through tons of engineering orders and related data; and have come to the conclusion that there are some six miles of tubing and piping, two miles of wire, a ton or two of valves, a confusion of dials and a cluster of switches, taps and levers in each CF-100.

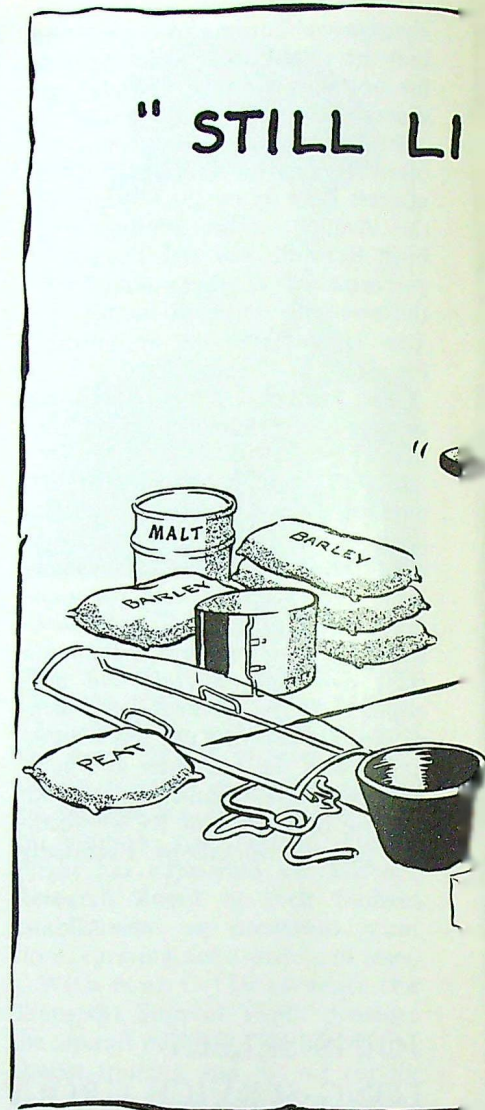
During my research, something vaguely familiar kept recurring in my mind. Suddenly I realized what it was: the recollection of a joyous visit to a scotch distillery in Ayrshire during the war. I found the distillery a fascinating place, and all very confusing. What confused

me was the miles of piping and wire, the profusion of valves, dials, taps and levers.

It is amazing how impressions stay with you for over 20 years. What is more amazing is how the CF-100 parallels the technical requirements for a scotch distillery. This is a beautiful coincidence and one worth a moment's consideration.

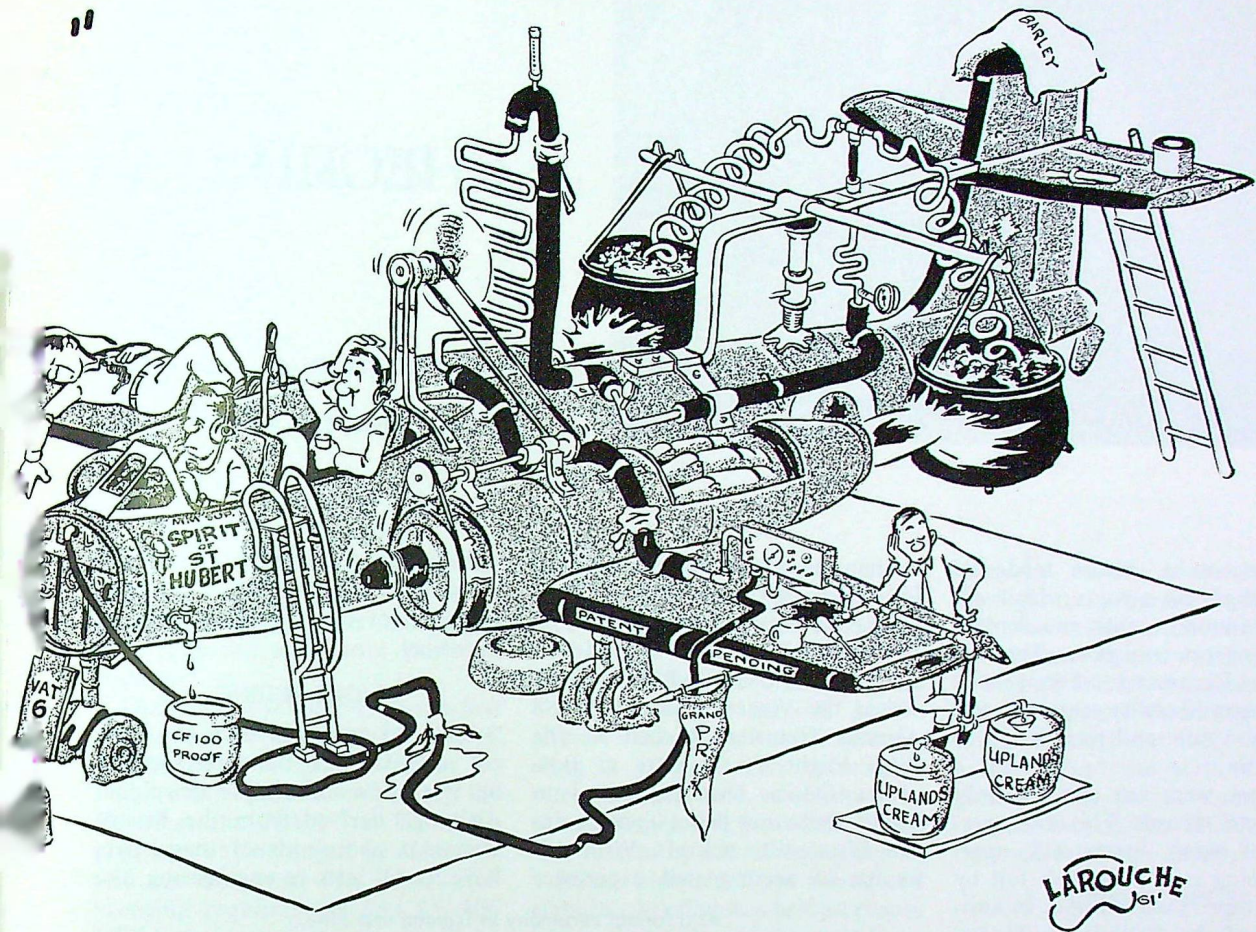
In my opinion it would take only a simple /6A mod to convert the CF-100 to a very efficient distillery: a reroute of a pipe or two, a rework of the wiring, a repositioning of a tap or lever, and a new cockpit layout. For example, the cockpit dials would be renamed. The Mach meter could be changed to "Mac" meter in deference to the Scottish prefix; the fuel gauge hooked up in reverse; air speed to specific gravity; climb and dive to over-and under-proof; jet pipe temperature to degree of smoothness. In no time at all you would have a three-wheeled, portable instant scotch machine with roundels — a possession of distinction.

To operate such a device the two cockpits would have to be manned. In the front cockpit the master distiller would supervise the whole procedure and would be known as the



Mash Master Sup (MMSup) with a Group 4 category. This, of course, would mean the creation of a new trade, but we are due for a change anyway.

The man in the back seat would call the shots — or rather call for the shots. He would be the quality control man, operating the automatic lock-on dispenser that would occupy the now-redundant radar



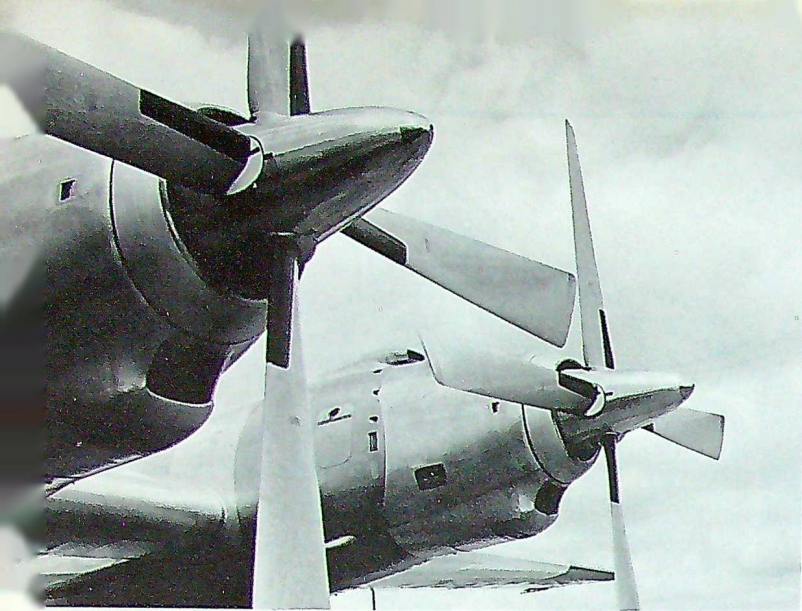
console. At the sound of the undercarriage horn (now wired to a timing device like the eight day clock speeded up to eight minutes), he would taste a sample of the product. His reaction would operate numerous indicators, such as turning on the nav lights, fuel pressure warning lights, dive brakes, retracting the undercarriage and even ejection. From these indications the Mash

Master Sup would take the necessary corrective action to get things back on an even keel. All the man in the front seat has to do is to keep the man in the back seat happy. A reversal of times gone by.

The personnel people may have difficulty in designating the quality control man in the back seat. Will he be Tech/Scotch Taster, Pers/S.T., Air/S.T., Med/S.T., or GL/S.T.?

This will be resolved at a later date. Meantime, I'll take the job myself.

What are the chances of my suggestion being accepted? Not very high, I am afraid. Nevertheless, I may have done some small service in pointing out to all you idea-men the obstacles that beset us deep thinkers. Remember, it's not so very long ago that folks scoffed at the idea of a man on the moon. ☉



CHECKING OU

By FLIGHT LIEUTENANT T. G. COUGHLIN,
Assistant Editor, THE ROUND

LAST month a *Yukon* made its maiden flight on a route which will become almost a milk run for the big turboprop transport. The Air Transport Command test crew made the Trenton-Marville trip non-stop in 11 hrs. 5 min. and returned in 11 hrs. 50 min.

But they were not out primarily to set speed records. This was merely one of many "user trial" operations being conducted this fall by No. 426 Sqn. Yukon Flight in anticipation of the Canadair-built aircraft being placed in full operational service early next year. It is part of the final phase in a test program which has been going on ever since the aircraft emerged from the drawing board.

Today there is no quick and easy method of proving the airworthiness and quality of a new aircraft. It is a long, costly and complicated task — involving in the *Yukon's* case Canadair Ltd. and the RCAF's Central Experimental and Proving Establishment — before the squadron operational suitability trials even commenced.

CEPE personnel started their evaluation program early in January 1958 when a selected group began

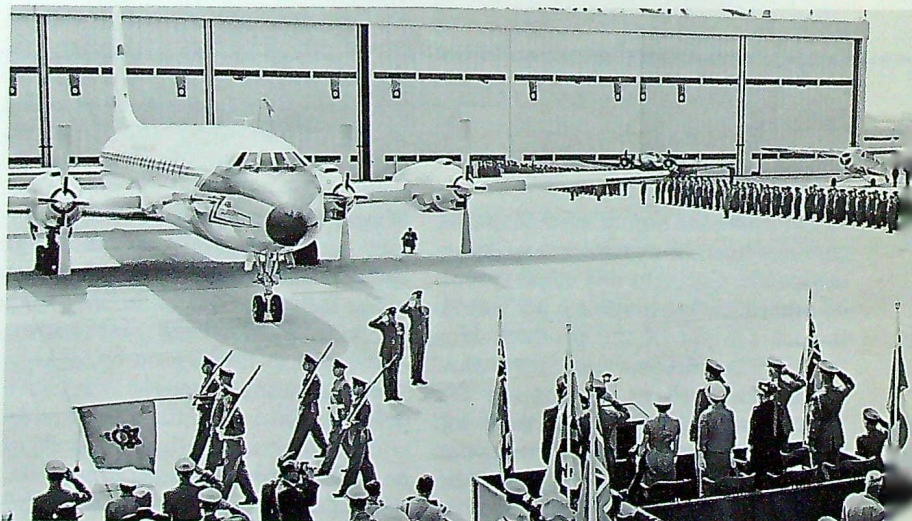
studying aerodynamic estimates. The following year, in April 1959, a CEPE test team proceeded to England where they attended a course at the Rolls-Royce plant, visited the Vickers and the Bristol Aircraft factories, studied at the RAF Flight Test Centre at Boscombe Downs then proceeded to Malta where they flew a Tyne-equipped *Elizabethan* aircraft. With this wealth of accumulated experience

behind them the team was sent on 1 September 1959 to the CEPE detachment at the Canadair plant in Montreal.

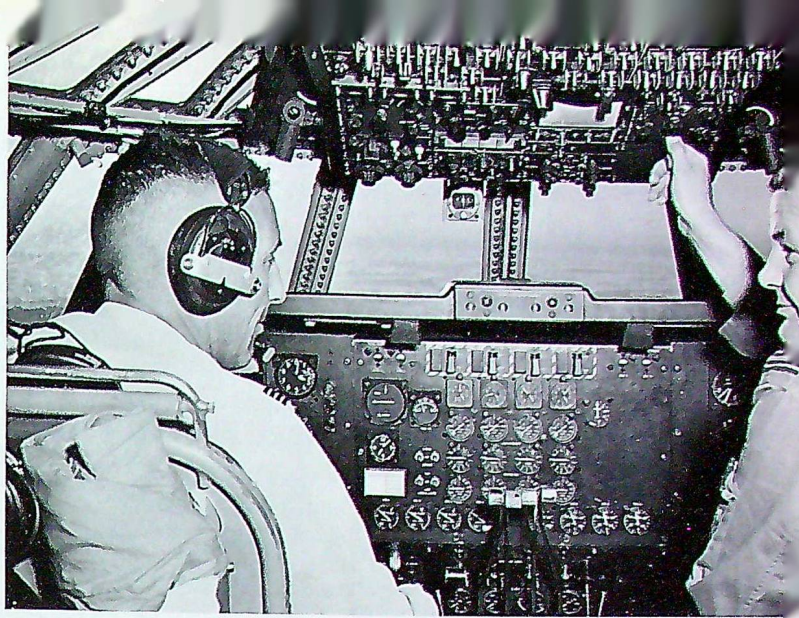
FLIGHT TESTING

The *Yukon* is not only the largest aircraft ever built in Canada but it is a new and unique aeroplane. Although derived from the Bristol *Britannia*, thousands of man-hours have gone into re-engineering the

At a formal ceremony in Trenton last June, Mrs. Hugh Campbell christened the CC-106 the *Yukon*.



THE YUKON



aircraft until today this Canadair product is larger than the original, 30,000 pounds heavier and fitted with different and more powerful engines.

Early in November 1959 the first *Yukon* was accepted by the RCAF and returned to the contractor for flight trials. Carried out jointly by Canadair and CEPE Test Team, the program was managed by Canadair and was set up so that CL-44 civil licensing requirements and CC-106 RCAF test requirements would be verified at the same time. Thus duplication of flight testing was reduced. The fact that CEPE carry out test programs does not relieve aircraft companies of the requirements to test RCAF aircraft. The overall test program for development aircraft (as opposed to off-shelf aircraft) consists of seven phases, of which the initial two, contractor's preliminary assessment and design refinement and development tests, are carried out by the contractor.

Using the company's performance predictions as a guide, the combined flight test team first worked out tentative handling notes. The flight testing phase of the program spanned the full spectrum of flying operations

from taxi-tests to emergency handling. Some of the more spectacular aspects in this field of endeavour were flying the aircraft beyond its normal limiting speed and carrying out three-engined takeoffs at the aircraft's maximum weight. By operating at extremes they determined safety margins and established the standard operating procedures which will be used by RCAF flying units.

Before each test flight a long and elaborate briefing was held to ensure that each member of the crew knew exactly what the flight was designed to accomplish. Following each flight an even longer debriefing took place to discuss the flight itself and record any pertinent comments. Then followed two weeks of study to edit the data obtained on each trip. Facts and figures were plotted, the results analysed and reports written up. Another flight, weather permitting, would then be undertaken. A great many hours of study were required on the ground for each hour in the air. After a year and a half with the *Yukon*, the rather modest figure of 475 flying hours was logged. And so it went; step by step the giant aircraft was proven, part by part and piece by piece and the flow of data

increased. As they progressed along the flight test program the combined flight test team accumulated proven performance figures which they used to replace factory estimates in writing the Aircraft Operating Instructions. Although not likely to become a "best seller", the AOIs when completed will be the most sought after manual in print by RCAF aircrew destined to fly the *Yukon*.

CLIMATIC TESTS

In January 1961 the third *Yukon* was turned over to the CEPE organization. With the first two aircraft returned to Canadair for flying trials aircraft No. 3 was prepared by CEPE for cold weather tests. In this field the RCAF's CEPE organization has unparalleled experience and has gained international recognition. Under different names, what is now called the Climatic Detachment has been testing aircraft under cold weather conditions since 1943.

Unfortunately, the *Yukon* did not arrive at Fort Churchill until 9 February 1961, too late in the season for the temperatures the climatic crew were seeking. They did, however, manage to experience -30 degree Fahrenheit with a 20 mph

wind which gave an equivalent temperature of -70 degree Fahrenheit. For a period of seven weeks the *Yukon* stood outdoors exposed to the elements while the mercury dropped and the arctic gales lashed the aircraft. Naturally, these severe conditions produced problems. In spite of these problems, however, the aircraft was flown on many occasions.

Intermittently and alternately, emergency exit hatches wouldn't open or the parking brakes would give trouble and tires would leak. The CEPE cold weather specialists reported and recommended answers to the problems. One of their most outstanding accomplishments was starting the engines in extreme cold. Although the engines were officially cleared by Rolls-Royce to start at a temperature of -30°C, by working out their own technique CEPE personnel started the engines at -34 degrees.

In addition to test flights to determine how the aircraft and its multitude of components would perform under cold weather conditions, ground handling equipment and maintenance problems were investigated. It was found, for instance, that unless a protective shield was laid on the ground under the nose of the aircraft, the hot exhaust gas from the auxiliary power unit (APU) would melt the tar in the expansion joints between the concrete sections of the tarmac — a matter of some concern to the construction engineering section. It was also discovered that various access panels, which were adequate in size for a bare hand, were not large enough to permit a mittened hand to pass through. Hatches which a person in shirt sleeves could go through proved to be too small for airmen in parkas. Nothing was too small or too unlikely to be investigated by the cold weather team.

As their investigations continued, their written reports suggesting innovations, changes, replacements and modifications, mounted. One in-



No. 1 Wing air movements personnel unload *Yukon* at Marville, France, after maiden flight from Canada.

novation, could prove to be of great value to the *Yukon* aircraft; namely, the use of air pressure from a T-33 to start the engines on the aircraft. For normal starting the *Yukon* carries its own APU but, like every other machine built by man, this apparatus can fail. For such a predicament, CEPE produced a solution. The climatic detachment successfully carried out engine starts using a T-33 as a source of power. Other ideas which produced results were such things as an arrangement of lanyards to keep free-wheeling turbo-props from rotating when the aircraft was parked and a special device which gave instant oil temperature and pressure reading when no external power or APU were available.

TELECOMMUNICATIONS CHECKOUT

Meanwhile, CEPE's telecommunication section was preparing for the day when a *Yukon* would be delivered to them for testing its electronic equipment. That day arrived last March when the fourth *Yukon* to be produced by Canadair arrived at the experimental unit at RCAF Station Uplands.

The *Yukon* has highly sophisticated telecommunication equipment but, ensuring that this electronic complex could do everything that was required of it called upon all the skill and knowledge of CEPE's telecom section for a period of three months. As an illustration of the complexity of the task, it may be noted that the electrical diagram for the APU carried by the *Yukon* is as complicated as the entire wiring system of the *Harvard* aircraft.

An entire month before the telecom *Yukon* became airborne, extensive instrumentation was carried out. Although the background of *Argus* experience was a substantial help to the *Yukon* test program there were still new worlds to conquer. For instance, the same telecom equipment used in different aircraft sometimes produces different results. The VHF radio that had functioned so well in the *Argus* was installed in the *Yukon* but there was no guarantee that it would function as it should, particularly since the antennae in the *Yukon* were not in the same location as those in the *Argus*. To determine if the same high per-

formance could be obtained was one of the jobs for the telecom section.

Although the testing of telecom equipment was primarily the responsibility of CEPE's telecommunications section, the test program was a co-operative effort. The instrument

section installed the many test panels and the photo section installed movie cameras to record the results. Individually and collectively ideas were contributed on how best to record and assimilate data. The end result and the object of CEPE's efforts on

the *Yukon* was to produce engineering notes and operating procedures for the aircraft. Now that Air Transport Command crews are carrying out intensive flying and operational suitability trials on the *Yukon* they can see just how thoroughly CEPE has carried out its assigned task. ☉

The Suggestion Box

THE following individuals have received awards from the Suggestion Award Committee, Department of National Defence, for suggestions which have been officially adopted by the RCAF. Photographs of winners of \$100 or over appear below. Proper procedure for submitting suggestions is detailed in AFAO 99.00/01.



Sgt. H. Acton of 6RD Trenton suggested a modification to the DL-45P radop target launcher which was adopted officially by the promulgation of EO 30-105CB-6A/2 dated 1 February 1960 and EO 30-105CB-6A/3 dated 29 January 1960.



Sgt. P. S. Baker of No. 1 Wing suggested a modification to the Del Mar radop target and launcher system which was adopted officially by the promulgation of EOs 30-105-AC-6A/2, 30-105CB-6A/4 dated 22 July 1960 and EO 05-25F-6A/309 dated 9 February 1961.



Mrs. A. F. Cybanski received a cheque for \$3,085.00 from A/M Hugh Campbell, Chief of the Air Staff, on behalf of her deceased husband, whose suggestion regarding a modification of a release system for parachute harnesses won the largest cash award ever to be paid out through the Public Service Suggestion Award Plan.

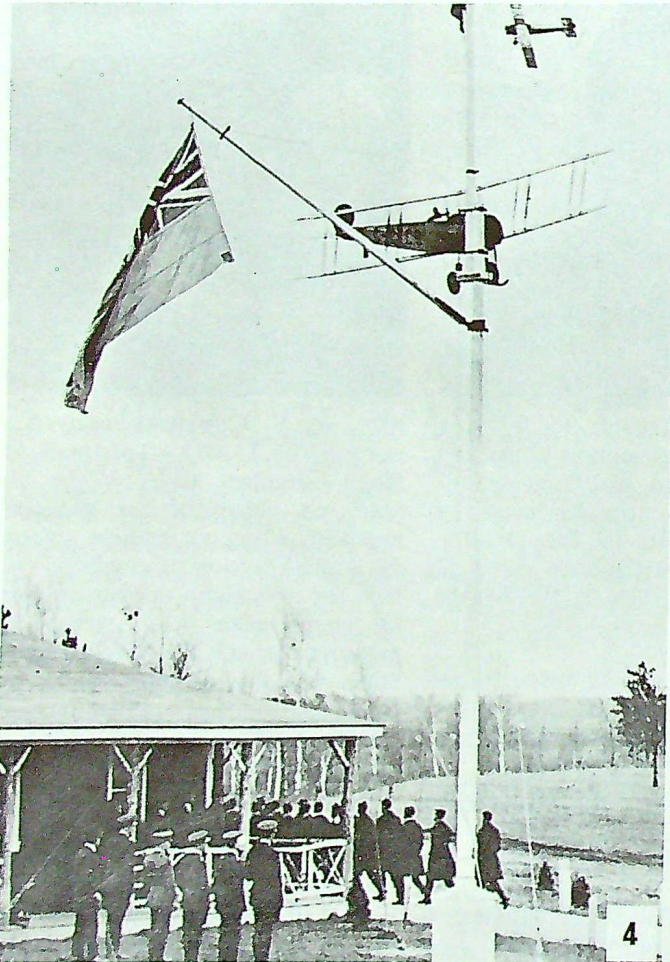
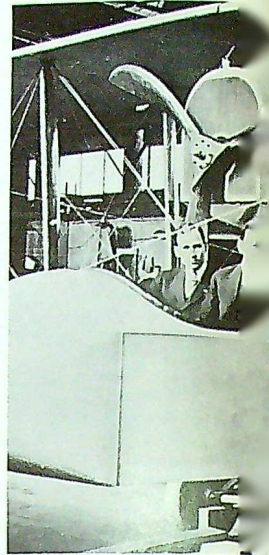
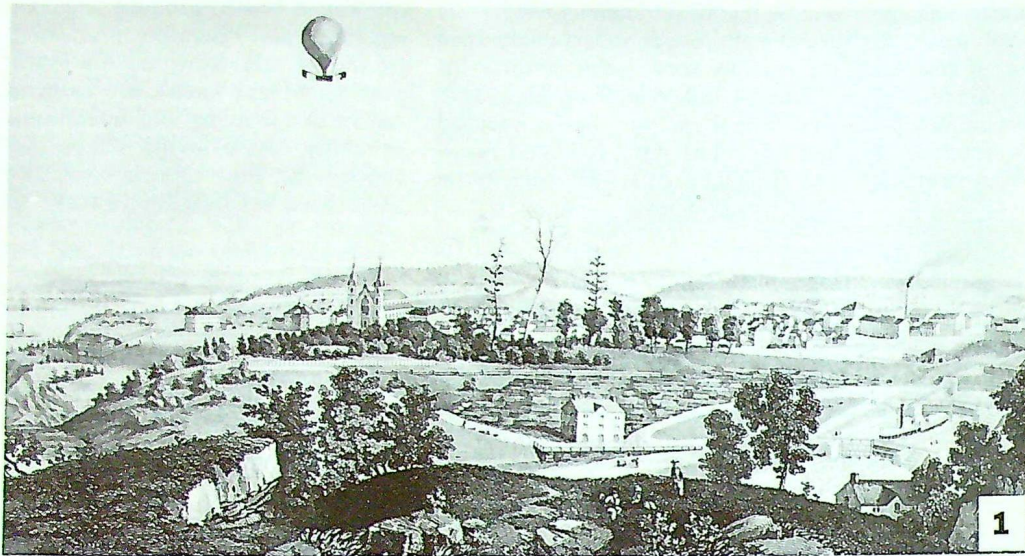
Other award winners:

F/L H. E. Booth
F/O T. G. Andrews
FS G. E. Robichaud
FS R. W. MacRae
FS D. R. Bamford
FS J. C. Tapp
FS G. Douglas
Sgt. J. Banagapka

Sgt. J. M. Findlay
Sgt. K. L. Sollows
Sgt. R. C. Broderick
Sgt. H. Aldridge
Sgt. J. T. Miller
Sgt. R. Grant
Sgt. R. G. Wreggitt
Sgt. D. Parkinson
Sgt. R. T. Moyes
Cpl. H. F. Hopkins

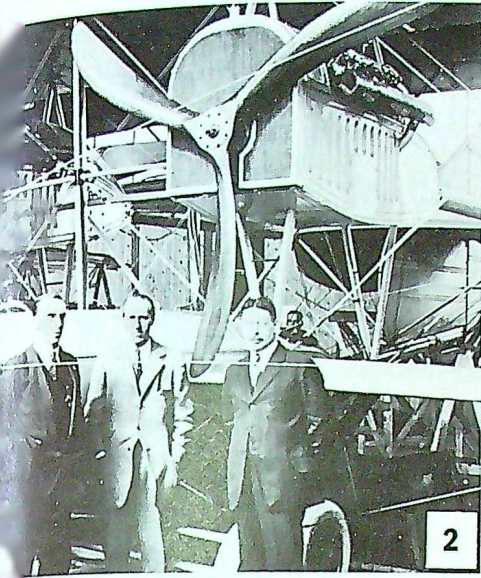
Cpl. D. Robertson
Cpl. E. S. Briard
Cpl. M. F. Browne
Cpl. R. H. Gillan
Cpl. J. Harrison
Cpl. R. G. Parent
Cpl. D. M. Setters
Cpl. A. C. Fehr

Cpl. R. A. Clement
Cpl. H. J. Underhill
Cpl. R. E. Johnson
LAC L. M. Deschene
LAC R. C. Stewart
LAC J. L. F. Cyr
LAC J. R. E. Leblanc
Mr. R. M. O'Halloran



What's the Score?

"WHEN was it?" asks the air historian of the photographs he has chosen for this month's quiz. Being in a benevolent mood, our makeup editor has placed them in chronological order, but we don't think even that is going to make it easy. Just pinpoint them to the closest year to score full marks — day and month are included in the answers as a bonus.



1. 1858. Professor Thaddeus Lowe, a young American, made his first balloon flight and the first manned flight in Canada on 17 July 1858 over Ottawa City, Canada West. Purpose of the flight is not certain but it is possible he was taking part in celebrations marking the successful completion that summer of the first transatlantic cable. Lowe later became "chief aeronaut of the Army of the Potomac" and the leading balloonist of the Civil War. (National Aviation Museum photo.)



2. 1915. Curtiss Aeroplanes and Motors Ltd. of Toronto, the only aircraft plant in Canada capable of manufacturing aeroplanes in 1915, received an order that year from the British government for 12 twin-engined *Canadas*, designed and developed by the Toronto firm. Pictured here in the cockpit of one of them are Mr. J. A. D. McCurdy, president, and Mr. F. G. Ericson, both well known for the parts they played in early Canadian aviation. (U.S. Archives photo.)



3. 1918. On 20 Nov. 1918 No. 1 Squadron, CAF, was formed at Upper Heyford, England, and was equipped with Sopwith *Dolphins*. First commanding officer was Major A. E. McKeever, DSO, MC, the leading Bristol *Fighter* pilot of the First World War, and his pilots were among the most distinguished Canadians in the RAF. Fourteen months later the squadron was disbanded.

4. 1921. Raising the CAF Ensign for the first time, at 1430 hrs. on 30 Nov. 1921, 45 officers and 169 airmen paraded before the headquarters building at Training Depot Station, Camp Borden. High ranking officers in attendance from Ottawa included W/C J. S. Scott, the Director of the young Canadian Air Force, and A/V/M Gwatkin, its Inspector General, who addressed the parade: "From today we are entitled to fly the light blue ensign of the Royal Air Force. It was A/M Sir Hugh Trenchard who obtained for us that privilege. I will tell him how proud you are of your flag, that you know what it stands for, that you will be true to its traditions." *Avros* circled overhead, dipping in salute to the ensign as the parade marched away.

5. 1941. "Captains of the Clouds" was a Hollywood tribute to the wartime RCAF. The photograph was taken at Uplands on 21 July 1941 and shows, from left to right: George Tobias, James Cagney, the Earl of Athlone, Lady Byng, Princess Alice, Lady May Abel-Smith, and Dennis Morgan. At the back on the left is the director, Michael Curtiz, and on the right, Alan Hale.

6. 1944. The Boston Bruins' famous Kraut line of Schmidt, Bauer, and Dumart served in the RCAF in the Second World War. On 26 Feb. 1944 the Rossmen, with P/O Schmidt and LAC Bauer, defeated the Lancasters, with Porky Dumart, for the championship of RCAF Overseas. Note the post, one of seven in the Durham rink.

AUTOMATIC WEATHER POST IN ARCTIC

THE world's first isotope-powered, automatic weather station now operates in the Canadian Arctic, on a remote, uninhabited island in the vicinity of Norwegian Bay, about mid-way between the manned weather stations at Eureka and Resolute.


For many years meteorologists have dreamed of systematic weather observations obtained from strategically-located areas of the remote Arctic. Many of the desired locations, however, are difficult of access, and to establish manned stations there would raise such problems as the recruiting of "isolation staff" and the maintenance of re-supply operations. An automatic weather station capable of functioning unattended for up to two years has now been developed. Earlier difficulties created by the lack of a continuous power source have been eliminated by the use of isotope power.

The United States Atomic Energy Commission and the United States Weather Bureau led in the design and fabrication of equipment to provide reliability consistent with the

long life of the isotope, to use a minimum of electric energy and to provide accurate weather data in usable form. The close co-operation maintained between the US Weather Bureau and Canada's Department of Transport prompted the latter's meteorological service to suggest that the station be installed for trial and operational use in the Canadian Arctic.

The station and its power source are housed in a cylindrical, insulated container about eight feet long — the lower five feet buried in the permanently frozen ground. Rugged and reliable weather instruments — an anemometer, a thermometer and a barometer — mounted as integral parts of the station measure wind direction and speed, temperature and barometric pressure. These readings are fed into a data-processing system and emerge ready to go directly into the radio transmitter, which, in turn, relays them every three hours to the receiving stations at Resolute and Alert. The anemometer and thermometer are exposed on a tower beside the station, while

the barometer is in the cylinder with recording equipment, radio transmitters, antennae and other electrical apparatus.

One of the station's unique features is the power source, located in the lower chamber of the container. Consisting of a Strontium-90 heat generator and thermocouples, batteries and a converter, it uses a safe insoluble chemical form of the isotope Strontium-90 securely locked in a corrosion-resistant capsule and shielded by three quarters of a ton of lead. The excess heat from the Strontium-90 is used to maintain an interior operating temperature of approximately 70 degrees Fahrenheit. This element produces thermal energy to charge a nickel-cadmium storage battery system, which in turn activates the radio transmitter. The isotope of Strontium-90 has a relatively long half-life and is capable of producing usable power for over ten years. The compound used, Strontium-titanate, is insoluble and biologically inert, with a melting point so high that it could not be dispersed by the hottest gasoline fires. 

THE COST OF WAR

Computations made on an electronic computer by a former president of the Norwegian Academy of Sciences, aided by historians from England, Egypt, Germany and India, have produced some astounding figures on the frequency and severity of wars.

Included in these findings is the fact that since 3600 BC the world has known only 292 years of peace. During this period there have been 14,531 wars, large and small, in which 3,640,000,000 people have been killed. The value of the destruction would pay for a golden belt around the earth 156 kilometres in width and 10 metres thick.

Since 650 BC there have been 1,656 arms races, only 16 of which have not ended in war. The remainder have ended in economic collapse of the countries concerned.

U.S. Medical Journal.



GONE WITH THE WIND

By LEADING AIRCRAFTMAN A. A. KLINGE

Efficient groundcrew help is just as essential for successful gliding as for powered flight. Ready for takeoff here is an *Olympia* of the Royal Air Force's Gliding and Soaring Association.

LIKE many other RCAF personnel in the Air Division I have been taking advantage of the splendid facilities available to become a glider pilot. One of the marks of accomplishment for a glider pilot is to win a "Silver C". This emblem of achievement is awarded for a flight of five hours' duration, a free climb of 1,000 metres (3,281 feet) and a cross-country flight of 50 kilometres (31.07 miles).

Having glided for some months at the Landstuhl Gliding Club, near No. 3 Wing, I decided that I was ready to try for my Silver C. I had already completed the duration qualification so all I needed was a cross-country flight plus the relatively simple altitude requirement. On the day of the attempt I arrived at the field at 1000 hours and spent a couple of hours installing some new instruments in my glider including an air speed indicator (ASI) which

reads in miles per hour to supplement the ASI reading in kilometres.

The weather was warm but hazy with scattered cumulus at about 5,000 feet, and did not strike me as being outstanding cross-country weather, but the chief flying instructor (CFI) seemed to think otherwise. Just after 1300 hours I took a tow to 1,500 feet and was released. The variometer showed rising air at about one and a half feet per second. At this point I was dismayed to discover that neither of my ASIs was working (later investigation showed the cause to be a disconnected pitot tube), and my first impulse was to return to the airfield to fix it. On the other hand, it was possible to estimate speed fairly accurately by altitude and by the sound of the air flowing over the canopy, so I decided to see if I could fly by the seat of my pants before venturing too far from base. The main problem was one of

efficient soaring, as for minimum sink this particular machine had to fly between 37 and 40 mph., while for best penetration it had to fly between 46 and 50 mph; anything faster or slower would cause rapid descent.

To avoid the trouble of having to dismantle and retrieve the glider I had decided to make a triangular flight from Neunkirchen-Rieschweiler-Ensheim-Neunkirchen, each turning point being a gliding site which had to be photographed from three angles to prove that I took no short cuts, the camera being loaded and sealed by the CFI to prevent any false claims being made. There was a light breeze blowing from the southwest, so that the first leg would be crosswind, the second leg against the wind, and the home stretch with a tail wind.

When I released from the tow aircraft, I was under a large and rather



LAC Klinge prepares for flight, aided by club members in rigging his glider.



... Away he goes, dropping wheels soon after take-off to improve streamlining, but alas . . .

ragged cloud. Although the lift was weak it was spread out over a large area, and one of the club gliders was circling in the same thermal about one quarter of a mile away. Slowly I climbed above him, at the same time drifting along with the wind, and decided that if I could get up to 5,000 ft. I would attempt the triangle. After about 15 minutes I had drifted over the town of Homburg but had only climbed about 500 feet, so I decided to hang around for a while to try and catch a thermal coming up off the railway marshalling yards and also to watch some motorcycle racing which was going on. By this time the other glider had flown off to another more promising cloud and was some 1,500 feet above me, so I left Homburg and flew back towards my starting place to join him in the stronger lift. This sequence was repeated several times, and altogether it took nearly an hour to get to the 5,000 feet I wanted—and I was still over Homburg and only three or four miles from the club. In good conditions the same climb could have been made in 10 or 15 minutes.

At this height the haze restricted visibility, although I could see the

open-air swimming pool at Zweibrücken some miles to the southeast. A quick calculation showed that from 5,000 ft. I would glide about 25 miles (in still air and at the right speed), so I was fairly safe in setting course for my first turning point about 10 miles away. As it happened, there was plenty of scattered cumulus about and I covered the 10 miles in a straight line with no loss of height, although in trying to make steep turns “no hands” for the purpose of taking photographs I lost about 500 feet. Down below I could see the gliders from the Pirmasens clubs being launched, but the lift at low altitude was too weak for them to get away.

I now had the difficult leg to cover—15 miles against the wind. My course lay to the southwest, and in a straight line would take me right over the 3 Wing airfield, but I had now run into air sinking at about six ft. per second so I increased speed to get through the draught and headed for a promising looking cloud over the village of Contwig. Sure enough, this produced the best lift so far at about nine ft. per second, and was particularly interest-

ing because I was joined by three buzzards (large birds of the hawk family) which formed on the inside of my turn and soared in line abreast for several circles; the nearest one could not have been more than six ft. from my inner wingtip. As soon as I reached cloud base, which by now was nearly 6,000 ft., I again set course in a westerly direction, but by the time I had reached the western edge of Zweibrücken I was down to about 2,500 ft. and wondering if I would have to make a field landing. Luckily I found a very weak thermal and slowly regained height, but only at the expense of drifting back over town. Altogether I spent 45 minutes trying to get away from Zweibrücken before I finally managed to fly south to a long line of heavy cumulus that was beginning to pile up. This line of cloud had steady lift of about one and a half ft. per second and was directly in line with my second turning point. En route I passed a free balloon which was drifting along with the wind, and answered the waves of the aeronauts by wagging my wings.

On this leg the country below



... LAC Klinge force-landed in field. On learning he had had no lunch, blonde fraulein (centre) brought him ham sandwiches and beer ...



... and landowner, who also owned local Gasthaus, towed glider to this parking lot for de-rigging and trailer stowing.

was very hilly and heavily wooded, with very few emergency landing sites. About 10 miles to the north I could see a landmark near my home airfield shining in the sunlight, but ahead, ground visibility was down to perhaps one and a half miles. Because Saarland is heavily industrialised, I wrongly assumed the murk to be industrial haze. In fact it was a curtain of rain, and with it came a very high rate of sink of 15 ft. per second. By the time I had passed through the shower, the airfield at Ensheim had come into view, but I was down to 1,500 ft. and I could see more rain coming; I also knew that to reach the airfield I had to cross a heavily wooded valley which produces violent down-draughts, so I immediately looked around for a good landing place.

The first consideration is safety. Then must be considered access for a car and trailer, and access to a telephone. I flew a slow, wide circle to see what was available and saw a small village of perhaps 20 houses. There were many cornfields, and a newly harrowed field about 100 yards by 50 in line with the wind, free from obstructions and with a farm track

alongside. I had enough height to circle again and check the field, then unlocked the airbrakes, increased speed (the brakes help to control the gliding angle for a given speed) and touched down about 10 ft. inside the field. The landing run was about 40 yards.

It is an amazing fact that when a glider lands in an apparently deserted countryside, crowds of people pop up out of holes in the ground and from behind tree trunks. Within two minutes of landing there must have been 20 people gathered around. First to arrive was the landlord of the local Gasthaus, who also owned the land. He very kindly drove home and telephoned the glider club that I was down and wanted a trailer, then returned and towed the glider down to his parking lot so that it would be easier to de-rig and stow in the trailer. By this time a regular thunderstorm had developed and it was pouring heavily, but several of the villagers stayed out for several hours and were soaked to the skin helping to hold the glider down to prevent the wind from blowing it away. I think that knowing enough of their language to carry on a lim-

ited conversation and answer their questions was an important factor here.

Later, when the storm had passed, the CFI flew over in the tug aircraft and circled overhead to pinpoint my position for the car and trailer that came with a gang of club members to take me home.

I still don't have my Silver C but I'll get it yet. As long as I'm stationed with the Air Division I'm in prime gliding country. And, if anybody is looking for me on weekends my wife can tell them that I am "Gone With the Wind".

COMMON AIMS

To banish the scourge of war, to improve the human lot, to defend and to enlarge the area of freedom, to assist peoples less privileged than our own — these are aims that bind together Canada and the United States and which, with other allies and friends, our two countries will, jointly and steadfastly, pursue.

Joint Communique of President Kennedy and Prime Minister Diefenbaker, Ottawa, 17 May, 1961.

RECORDING BIGGEST NON-NUCLEAR EXPLOSION

By C. A. POPE, DRB Public Relations Officer

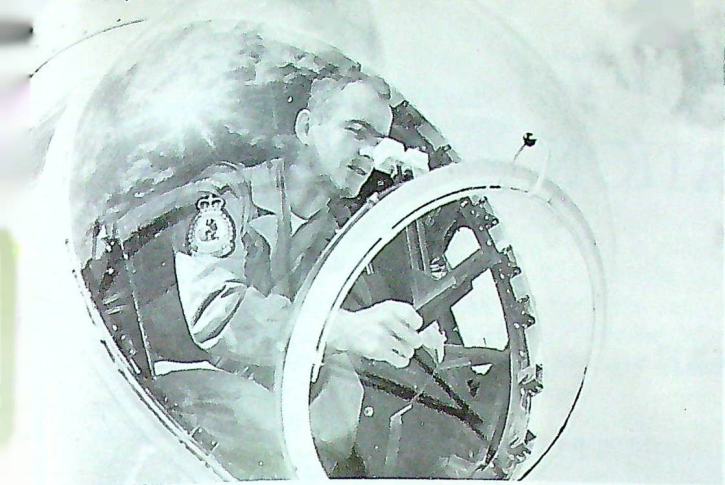


THE Defence Research Board's shock and blast program at Suffield Experimental Station (SES), near Medicine Hat, Alta., was given a valuable assist by the RCAF on 3 August when a camera-equipped *Lancaster* photographed from the air the detonation of 100 tons of TNT. In addition, an RCAF helicopter obtained aerial photographs of the crater formed by the massive explosion.

Research agencies from Canada, the United Kingdom and the United States participated in the experiment. Their main objective was to obtain fundamental scientific information about phenomena in the air, in the ground and at the surface caused by the large non-atomic explosion. The effects of these phenomena on a variety of military and civilian configurations are still being examined in detail.

Navigating the wartime bomber so that it would be 10,000 feet over Ground Zero at detonation was forecast as "a virtual impossibility" by a number of navigation experts outside Canada. Navigators F/L R. W. Buskard and F/O G. B. Foote, however, 'guided pilot F/L M. F. Chapin so accurately the *Lanc* reached its predetermined point in the air just one second before the explosion began.

Eight cine cameras, shooting at speeds ranging from three to 800 frames a second, provided the DRB scientists with a film of the detonation which complemented the cine footage taken on the ground by SES photographers. The *Lancaster* was also fitted with a pressure transducer which measured the pressure in excess of normal at 10,000 feet during



Navigator F/O G. B. Foote checks *Lancaster* camera aiming site prior to recording SES explosion.



Final nose perspex polish before the big bang is applied by (l. to r.) Cpl. L. Barry, Cpl. R. Johnson and LAC W. Hunter.

the detonation to confirm predicted pressure from the explosion.

Aerial photographs of the crater and its specific characteristics, taken from the helicopter, were compared with ground measurements obtained after the explosion. The results should help to permit accurate interpretation of a variety of ground features from aerial photographs.

Both aircraft were provided by the Air Armament Evaluation Detachment of CEPE at RCAF Station Cold Lake. An RCAF team had worked closely with DRB preparing

for the experiment since last January.

In the past, detonation investigations have been conducted principally with relatively small charges weighing up to a few hundred pounds. Reasonably accurate predictions about the behaviour of massive explosions have been extrapolated from this research. The experiments at SES, however, provide far more precise information about the magnitude of TNT air blast waves and should confirm or negate theoretical predictions made previously.

Approximately 70,000 feet of cable trench, dug to various depths, contained more than 1,500,000 feet of coaxial and other cables. One scientific group alone required the transportation of 50 tons of experimental material to the test site. On the day of the trial, approximately 300 scientific, engineering and technical individuals were directly involved. Many tens of thousands of specific measurements were carried out and the full interpretation of the trial results will probably require more than a year to complete. ☉

RCAF COLOURS PARADED OUTSIDE CANADA FOR FIRST TIME

FOR the first time in history the colours of the Royal Canadian Air Force have been paraded outside Canada. In a traditional "showing of the colours" ceremony at McChord Air Force Base, near Tacoma, Washington, the Canadian participants included the colour party, a guard of honour and the band from RCAF Station Comox.

Maj. Gen. V. R. Shores (extreme left), commander 25th NORAD Region, inspected and took salute of RCAF colour party led by F/O L. Haenni, and guard of honour commanded by F/O T. Neill.

The RCAF colours were approved for presentation by H.M. King George VI and were presented to the RCAF on his behalf by His Excellency Viscount Alexander of Tunis in Ottawa on 5 June 1950. Their purpose is to serve as a visual commemoration of the sacrifices made by airmen and airwomen who gave their lives in the service of their country and as a token of the spirit shown by all those who served or are now serving in the RCAF.





RCAF ASSOCIATION

A MESSAGE FROM

THE MEMBERSHIP CHAIRMAN

This section of THE ROUNDLE is prepared by Association Headquarters, 424 Metcalfe St., Ottawa, Ont.

National President Visiting Western Wings this Month

Arrangements are now completed for Mr. L. N. Baldock to visit Wings in British Columbia, Alberta, Saskatchewan and Manitoba during the period 14-22 October. Wings to be visited are preparing to take advantage of the President's visit by marking the occasion as Membership Night. The theme of Mr. Baldock's talk on these occasions will be "membership within the Association". A visit to Sault Ste Marie and Lakehead is also contemplated.

National Executive Council Annual Meeting

On 3 and 4 November members of the National Executive Council of the RCAF Association from across Canada will come to Ottawa to attend the annual meeting. An item of great importance on the agenda of this meeting is the re-

PAYING tribute to the Association at our national convention in Winnipeg, Air Marshal Hugh Campbell said: "You have adapted yourself to changing conditions since your inception and have worked relentlessly to achieve your aims. You have done a highly creditable job."

As we embark on our annual campaign to increase Association membership, we do so with the idea of building the strength of our Association in order to fulfil even better those aims to which the CAS referred.

The accomplishments Canada-wide of the Association have been considerable, but we can achieve more with more people. Similarly, our participating members obtain solid satisfaction in pride of accomplishment while working in good fellowship on worthwhile projects.

In these troubled times, we must do our utmost to ensure a well-informed public supporting all branches of the Air Force, whose role in the defence of our country we know to be so vital. Now more than ever we want everyone, and particularly our ex-air force people, to be aware of the needs and changes in aviation as they occur.

It is for these reasons particularly that we urge every interested individual to spread the word "The RCAF Association is actively seeking new members now. Look into it. You'll be glad you did".

G. E. PENFOLD

Chairman, Membership Committee



George Penfold

"WING OF THE YEAR" AWARD

RCAF Association

Awarded to

252 (Lord Beaverbrook) Wing
Fredericton-N.B.



"In recognition of the Wing's achievements in furthering the aims & objects of the Association and the high standard of leadership provided by the Wing executive throughout the year."

George F. Watts Pres
Jack Wilson 1st V. Pres
John Reynolds 2nd V. Pres
Chas. W. McCordick Sec
Ray Cogswell Treas
James Harper Legal Adv
EXECUTIVE
Walter Allright
Earl Clements
Clinton Ferguson
Charles Irvine
Robert Watson
Thomas Wilby
Stan Worth

W. L. Baldock
President



May 20th 1961.

organization of the National Executive Council. This matter was discussed on the floor of the national convention in Winnipeg and was referred back to Council for further consideration.

On invitation of A/V/M C. L. Annis, Air Officer Commanding, Air Materiel Command, members of Council will have an opportunity to see the IBM 705 computer in operation at Rockcliffe.

Foster Parent Adoption Plan

We are pleased to announce that No. 150 (North Atlantic) Wing, St. John's, Nfld. has arranged to adopt two children under the Association's foster parent plan. No. 150 Wing has elected to adopt one child through Canadian Save the Children Fund, Toronto, and the other through Unitarian Services Committee of Canada, Ottawa.

The members of No. 150 Wing deserve special tribute, for even at the time they were plagued with serious forest fires in their home province, they were thinking of those unfortunate children in Korea, India and the Philippines for whom Canadian assistance is so urgently needed.

CHANGING ADDRESS?

Each month several copies of THE ROUNDLE fail to reach Association members because the addresses they bear are out of date.

Please ensure that your correct address is forwarded to RCAFA Headquarters, 424 Metcalfe St., Ottawa, as soon as possible whenever a change occurs. A post card will do the trick.

●

A little girl's thank-you to an elderly aunt: "Thank you for your nice birthday present. I always wanted a pin cushion, although not very much."

AN AERIAL KNIGHT

By Squadron Leader Sid Sills, DFM

Acts of chivalry by pilots in the First World War were not uncommon. We don't hear of so many in the Second World War, but I was privileged to witness an outstanding one.

Because of a shortage of air-gunners I had volunteered to go on an operation that was considered a piece of cake. It did, in fact, turn out to be that — until the return journey.

We had carried out our task and "Betsy," our *Blenheim*, was trundling merrily back to base, an airfield near Aden, when there sounded an ominous clatter from the tail and lead began to fly around. Although I had been keeping what I considered a good look-out, an Italian CR-42 fighter had caught us and was proceeding to introduce himself.

A second attack revealed him to us. He was behind and above — six o'clock high. As he pressed home the attack I gave his position to the pilot. Our aircraft started a ballet dance while I waited until the enemy came within range.

I opened fire at about 400 yards, but hardly got off half a dozen rounds before the gun jammed. Fortunately the CR-42 put only a few more holes in the *Blenheim's* metal fuselage, but he carried on past at very close range and began to position himself for another attack.

In the meantime I was applying all my remembered knowledge of armament to trying to clear the stoppage in my gun. Then the enemy aircraft began diving on us from the port quarter, but the pilot must have sensed that something was wrong, because he did not fire. Instead he levelled out and proceeded to fly alongside the *Blenheim* in fairly close formation.

Not certain of how to proceed under the circumstances, I detached the gun from its mounting and — without consulting my skipper — waved it from the turret to indicate to the Italian that I was unarmed, in the hope that he would take a lenient view. Almost immediately he closed in until he was tucked inside our port wing and then, to our utter amazement, waved heartily, peeled off and, with one of the neatest flick rolls I have ever seen, disappeared.

Less than a week later I had the pleasure of shaking the hand of this pilot. His flying career had come to a sudden and ignoble end when he was shot down by a rifle bullet aimed at him more in desperation than with skill, and he was taken prisoner.

— RAF ASSN. ANNUAL



Wartime buddies "Blackie" Williams and Walter Dinsdale recently visited the BMEWS base at Thule, Greenland. G/C D. J. Williams is now C.O. of RCAF Stn. Trenton; the Hon. W. G. Dinsdale, a charter member of the RCAFA, is Minister of Northern Affairs.

Letters to the Editor

RE SPECIAL ISSUE

FLIGHT SAFETY CAMPAIGN

Dear Sir:

We thought it might interest your readers, particularly those that are "fly boys" by nature but grounded due to circumstances beyond their control, to know how we have attempted to assist in the flight safety campaign at 34 AC & W Squadron, Senneterre.

As you well know, it is most difficult to maintain a working knowledge of an aircraft (particularly a jet) when you only fly it once or twice in the quarter. In order to interest our aircrew personnel in flight safety and to keep them up to date on the latest amendments to EO's, jet let-downs and local flying regulations we have installed



this flight safety board. The Chief Operations Officer of this unit, S/L N.D. Cairns, points out our weekly picture that is used as a drawing card to interest our aircrew members in the latest "Flight Safety Gen."

We feel this is one way in assisting to keep our flying accident rate down and our life span up.

F/L G. Shorey,
Flight Safety Officer,
RCAF Station Senneterre, P.Q.

BISHOP BIOGRAPHY

Dear Sir:

I am gathering information on the career of my late father, Air Marshal W. A. "Billy" Bishop, in order to write his biography.

I would appreciate it if any of your readers who were either associates or flying comrades of my father would provide me with whatever information they might have on his career.

Mr. W. A. Bishop,
17 Parkhurst Blvd.,
Toronto 17, Ont.

NO. 46 SQN., RFC AND RAF

Dear Sir:

I am in Canada for two years on an exchange posting with the RCAF, and as

secretary of No. 46 Squadron Annual Officers' Reunion, would beg space to help reach Canadians who have served with 46 in the past.

If they will write to me I will put them on my mailing list and send them details each year of the reunion dinner. It is usually held in London, England, in June, and former members from the Kaiser and Hitler wars and peacetime service attend. We are proud to boast the longest run (from 1918 onwards) of unbroken reunions of any RAF squadron.

S/L P. A. Gifkins,
RCAF Stn. St. Hubert, P.Q.

NO. 216 SQN. HISTORY

Dear Sir:

F/L R. T. Locke, No. 216 Squadron, RAF, Lyneham, Wiltshire, England, is writing that squadron's history and would like to contact any Canadians who can help him with the project.

As quite a few RCAF personnel were with No. 216 at one time or another, F/L Locke would appreciate very much if any of these persons with photos or items of interest would write him. All photos, etc., would be copied and returned.

Ray W. Ealey,
P.O. Box 475,
Moncton, N.B.

STAMFORD REMEMBERED

Dear Sir:

No doubt many officers and airmen who served at 1 (Fighter) Wing, RCAF, North Luffenham, Rutland, England would be interested to learn that this year the citizens of Stamford, Lincs, are celebrating their town's quinqucentenary.

Recalling vivid and pleasant memories of Stamford while serving as first adjutant of No. 410 Sqn. overseas, I wrote the Mayor and informed him accordingly. Much to my surprise and delight, I received replies from The Most Honourable The Marquis of Exeter, KCMG, of Burghley House, who is now the Mayor, as well as from the Town Clerk. Both were most grateful for my letter and extended warm regards and felicitations to all RCAF personnel who served at North Luffenham. The following address is recommended for those wishing to extend congratulations on this anniversary:

Mr. H. Bedford,
Town Clerk & Solicitor,
Town Hall,
Stamford, Lincs, England.

I feel confident that this gesture is one way in which each could express his appreciation for the magnificent way in which we were all received by the town and its wonderful and gracious inhabitants.

Colin M. Campbell, F/L (ret.)
160 Burlington Avenue,
Moncton, N.B.

Dear Sir:

Kindly accept and extend to all members of your hardworking staff my warmest, personal congratulations on the excellent special July-August 1961 issue of THE ROUNDEL.

For those ex-air force "types", like the undersigned, who are no longer actively connected with the RCAF this special issue is a valuable and authentic means of bringing us up to date in a capsule form as regards the organization, functioning and well-being of our old service. And I trust that we, in turn, can advise our non-air force friends and associates in this country and elsewhere of these facts so they can appreciate fully the valuable contributions the RCAF is making nationally and internationally to progress, understanding and peace.

Recently the 180-strong Red Army Chorus arrived at Vancouver for its North American debut at our International Festival. Little, if any, local attention was paid to the fact that the Soviet aircraft transporting this group were "guided" by RCAF aircrew personnel. This is one of the lesser known activities of our service, which surely creates better international understanding, if merely by association.

Kenneth M. Guthrie,
1459 West 38th Avenue,
Vancouver 13, Canada.

(The A/V/M's comments are typical of many received from coast to coast on this special issue, for which naturally we are grateful. — Editor.)

PAGING NO. 120 SQN.

Dear Sir:

Recently I came across a page from the REGINA LEADER POST of 4 November 1939 honouring the transfer to active service of No. 120 Bomber Squadron which had been formed in Regina. I am interested in hearing from any fellow members of that original squadron.

FS G. E. McIntosh,
RCAF Stn Gimli.

The man who is afraid to gather honey because the bees have stings will never succeed.

Horse sense is what keeps a horse from betting on the human race.

Deliberate with caution, but act with decision; yield with graciousness, or oppose with firmness.

Three Country Cousins



A TRIO of *Starfighters* for Germany, Canada and Japan flash across the sky in a wing-to-wing allied nation formation flight high above southern California. Initial flight test programs for the three 1400-plus m.p.h. multi-mission fighters are being carried out at Lockheed's Palmdale base. These aircraft are being manufactured in all three countries. The *Starfighter* is the current world altitude record holder with a flight of 103,395 feet.

Roger Duhamel

The Queen's Printer — L'Imprimeur de la Reine

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ROYAL CANADIAN AIR FORCE