

PAGE

news on the dot

CONTENTS

LET'S FACE IT SOUHAITS DU MINISTRE ET DU SOUS-MINISTRE À L'OCCASION DES FÊTES	3
THE STORY BEHIND OUR FLAGS	6
ATC COVERS CANADA'S NORTHLAND	9
BUDDING SCIENTISTS	10
SENIOR STAFF CHANGES	12
"MR. WEATHER"	14
LONG SERVICE EMPLOYEES	15
SUGGESTION AWARDS	16
DOT'S INTERESTING	18
CCGS ALBUM	20

COVER STORY

A red maple leaf on a white field is the basic design of our ships' insignia and flags. Worn on our ships' funnels, it is easily recognizable as the distinctive symbol of the Canadian Coast Guard. See "The Story Behind Our Flags" on page 6.

EDITOR

Yvonne McWilliam

NEWS ON THE DOT is a Department of Transport staff magazine published under the authority of the Minister the Hon. George J. McIlraith, P.C., Q.C., M.P., by the Information Services Division.

ROGER DUHAMEL, F.R.S.C., QUEEN'S PRINTER AND CONTROLLER OF STATIONERY, OTTAWA, 1963

D.O.T. Log

 Did you know that runways are numbered by their magnetic bearings?

Winnipeg's runway 18-36 runs northsouth magnetically. The number 18 represents the magnetic bearing 180° (the last digit is left out in the runway number) which a pilot would follow in approaching the runway from the north.

When coming in from the south he would follow a bearing 360°.

Similarly, runway 13-31 indicates it runs from south-east to north-west, bearing 130° at one end and 310° on the other.

That's why the difference between a runway's two numbers is always 18, representing the 180° difference between opposite directions.

- In the jet age of air transport, a mile is six seconds long, according to IATA.
- The force of air rushing over the wings and fuselage of the fastest supersonic aircraft is ten to 12 times greater than that of any recorded hurricane, according to IATA reports.
- Tips to travellers taking pictures from an aircraft:

Shoot at 1/100th of a second or faster. For movies use 24 or 32 fps. Don't rest camera on arms against any part of the cabin. Shoot from the window farthest from the sun if possible and guard against reflections. A haze filter would probably be helpful.

• The last of five new 95-foot CCG search and rescue cutters was christened at Victoria, B.C. on September 27.

The vessel, named "Racer" at a ceremony in the yard of Yarrow's Limited, was sponsored by Mrs. C. R. Dunlap, wife of the Chief of the Air Staff, RCAF.

 A contract, amounting to \$1,689,627 for construction of a conventional lock to replace the marine railway at Swift Rapids, Ontario, on the Trent Canal system, was awarded to McNamara Construction of Ontario, Ltd., in October.

The lock will replace the marine railway that up to now has handled boat traffic on the Severn River coming up from or bound for, Georgian Bay. Construction, already underway, is scheduled to be completed in May, 1965.

Something New's Been Added

One of our readers—a member of the Canadian Coast Guard—wrote asking if we would run a series of photographs and details of some of the 50 Canadian Coast Guard vessels. He and others aboard the vessel he serves on would like to keep a scrapbook of such photos, he said.

We thought it was a good idea so beginning with this issue (see page 20) News On The DOT will feature one CCG vessel each issue.

And we hope something else NEW will be added

Because there are many French Canadians among our 14,000-odd employees we would like to include French articles in News On The DOT. We have one, about Montreal region air services, lined up for the January/February issue, but we would like our readers to give us other ideas—or better still, to contribute articles themselves. How about it? Are there any offers?

O.T.'s meteorological branch must go abroad for much of the fine instrumentation it uses in weather work.

They know why the Ontario government, in the midst of its campaign to "Buy Canadian", still admits: "Let's face it—some things have to be imported."

When it comes to the highly specialized instruments required in its work, the branch finds there is a very limited demand in Canada for them apart from its own needs, so manufacturers do not find it profitable to produce them.

One exception, however, is the recent move to have radiosonde instruments made in Canada, This has reduced the dollar value of the meteorological branch's imports by almost \$250,000 annually.

In 1962 instruments were purchased from England, the United States, Australia, Switzerland, Germany, Israel, Italy, Russia and Austria. Strangely enough, one of the few labels missing was the "Made in Japan" one.

From England the branch bought thermographs, hygrographs, casella anemometers, spectrophotometers, thermometers, sunshine recorders, pure latex radiosonde balloons, and radar targets and shrouds. Australia supplied a special type of recorder capable of operating for a year without attention at isolated stations. They Let's Face it

by
Lloyd Judd
Stores Supervisor,
Meteorological Branch

also supplied Met. radiometers for measuring radiation.

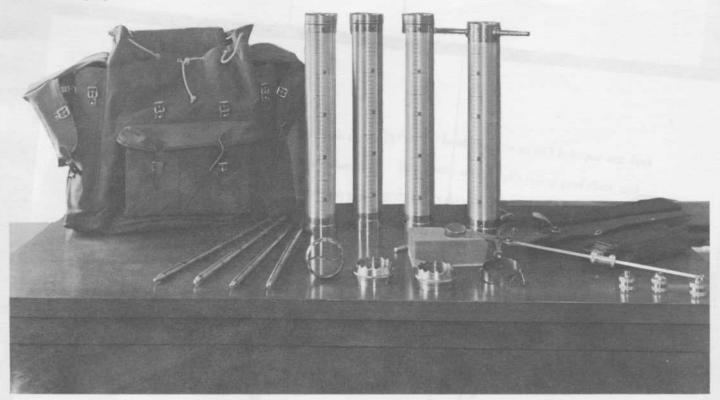
Tiny Switzerland, world renowned for its precision clock works, sent specially constructed clock escapements for operating recording instruments, while Germany provided theodolites, aneroid barometers and sunshine recorders. From Israel a special type of thermometer screen was imported to see if it can be adapted to Canadian requirements. Snow sampling equipment from Russia and snow and rain measuring equipment from Italy have also been obtained to assess their value for our needs.

A great deal of the specialized equipment is American-made including: ceilometers for measuring cloud ceilings, transmissometers for measuring horizontal visibility, special rain gauges, pyrheliometers for measuring radiation, wind recording digital systems, runway visual range signal data converter systems, angle visualizers, snow sampling and ice measuring equipment, meter scanner and pulse timers, complete discon systems, thermal shields and resistance standards.

All of this and yet the bulk of equipment used by the meteorological branch is not imported, but obtained right here in Canada. How can this be so?

Most of the standard instruments can't be bought from any manufacturer, so they are built in the branch's own instrument workshop. Component parts purchased from a variety of Canadian suppliers go into these "home-made" instruments. In 1962 upwards of one and three quarter million dollars was spent on these components.

Italian snow sampling kit





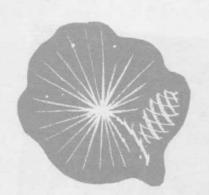
L'atmosphère de cordialité du temps des Fêtes est contagieuse, qu'elle se manifeste par des cantiques solennels, les cris de joie des enfants devant le Père Noël, ou l'appétissant fumet des tourtières et le crissement de la neige sous les pieds des millions de fidèles se rendant à l'église.

C'est l'époque de l'échange traditionnel de souhaits entre amis. Je formule donc pour tous les employés du ministère des Transports et leurs familles des souhaits que je veux empreints de la même cordialité et de la même sincérité qu'un bonjour et qu'une poignée de mains échangés sur un coin de rue de votre ville.

Nos réalisations ont été nombreuses en 1963. La construction de trois aérogares importantes à Winnipeg, Edmonton et Toronto sera terminée sous peu; la flotte de notre Garde côtière canadienne s'est augmentée de 12 nouveaux navires; les directions des télécommunications et de la météorologie ont accompli des progrès scientifiques dans divers domaines. En réalité, les réalisations du ministère des Transports en 1963 sont trop nombreuses pour que je puisse vous les énumérer au complet. L'année 1964 nous offrira d'autres magnifiques occasions de servir notre pays. Au seuil de cette nouvelle année, permettez-moi de vous formuler le souhait traditionnel:

Joyeux Noël et Bonne et Heureuse Année.

Dog. J. m. Maith



Le temps des Fêtes est naturellement une période de réjouissances, de joie et de gaîté. Ce n'est certes pas le moment pour moi de vous faire de grandes tirades. C'est pourquoi je veux seulement vous offrir mes meilleurs voeux et vous souhaiter pour l'année 1964 santé, bonheur et prospérité.

g. R. Balduis



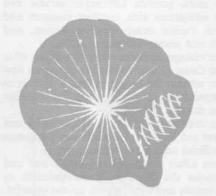
The warmth of Christmas is infectious whether it manifests itself in the solemnity of carols or the happy cries of youngsters delighted by Santa Claus. It smells of mincemeat and sounds of crunching snow as millions of feet wend their way to church.

It calls on friends to exchange greetings, so I extend to all D.O.T. employees and their families greetings in the hope they will be as cheerful and sincere as a hello and a handshake on a corner in your town.

We have achieved much in 1963. Soon three major air terminals at Winnipeg, Edmonton and Toronto will have been completed; our Canadian Coast Guard fleet has expanded with the addition of 12 new vessels; telecommunications and meteorological branches have made scientific accomplishments in 1963 are too numerous to mention here.

We look forward to 1964—to new challenges and opportunities to serve our country. As we begin, may I wish you and yours a very Merry Christmas and a Happy New Year.

Log. J. me Maith



The cheerful holiday season is, as I hope you are, both figuratively and literally full of good cheer, and scarcely seems the time for departmental exhortations or lengthy messages. I limit myself, therefore, to sending all of you good wishes on this happy occasion. May 1964 bring many good days for you.

g. R. Baldunis

the story behind our flags

by Yvonne McWilliam

"There's nothing new under the sun", goes the adage. We were reminded of this by the results of the recent national flag competition for professional artists and designers sponsored by Weekend and Canadian Art magazines. Second and fourth place prizes were awarded for designs essentially the same as those used on our Canadian Coast Guard ships' funnels and flags.

The second prize design, a red maple leaf on a white field, is the basic element in the CCG family of flags which was conceived by Assistant Deputy Minister, Marine, Gordon Stead and adopted because of its uncluttered, easily-recognizable features.

The selection of these similar designs by the panel of experts pays a sort of left-handed compliment to the excellent design incorporated into the department's flags.

Cash prizes for the competition ranged from \$2,000 for first to \$100 for five fourth place winners. It wasn't set up to settle the flag issue, but it was a forum for professional flag ideas—and there were 783 different ideas. Designs receiving cash prizes or honorable mentions were shown in a September edition of Weekend Magazine for all the country to see.

Similar fanfare did not accompany the department's search for its new symbols. When reorganization of marine services began five years ago, it was realized new symbols would be needed to reflect the modern jobs of icebreaking, research, maintaining navigation aids and search and rescue. The old symbols were cluttered and confusing.

When Mr. Stead pondered the problem he kept these objectives in mind: flags are signals; they ought to be made up of large blocks of color; be easily recognizable, and convey their meaning at a glance when flown at a masthead or yardarm.

One Sunday at home his ideas jelled and he sketched out the designs which later became the department's flags.

The sketches were rough from the artistic point of view but right on symbolically—a red maple leaf on a white field.

The maple leaf is recognized abroad as distinctively Canadian. During the battle of the Atlantic, merchant sailors used to look out at a maple leaf shielding their convoy. Every RCN ship had one painted on its funnel. Maple leaves were painted on Canadian army vehicles which made the furthest penetration on D-Day. As well, they adorn the red blazers worn by our Olympic teams and are an internationally known symbol at airports of call of Trans-Canada Air Lines. It seemed logical to take advantage of this existing situation.

The Stead sketches were turned over to a heraldry artist, Allan Beddoe, of Ottawa, who redesigned the Canadian coat of arms on a federal government commission in 1956.

Mr. Beddoe produced the finished flag drawings and went on to develop the badge which is affixed admidships on the foreside of the wheelhouse. It is also worn on blazers of members of the Canadian Coast Guard.

The badge is oval and divided vertically into half sections of white and blue. A red maple leaf highlights the white section, while the blue displays two gold dolphins, one facing inward and the other outward.

Added to the flag's red maple leaf on a white field was a blue fly (panel) to denote the department's responsibility for Canada's marine interests and its gigantic task of keeping waterways free of ice.

Since the badge and the Minister's special flag included the Crown, the designs were submitted to Queen Elizabeth through the office of the Governor General and were personally approved by Her Majesty in July, 1960.

Important as the adoption of these new symbols was, even more important changes were being made in the Canadian Marine Service. Barely two years ago its name was changed to the Canadian Coast Guard although it has been anything but a newcomer to Canada's marine scene.

Since Confederation federal government ships have tended lighthouses, searched for and rescued mariners, and performed a variety of other services.

In these early years the vessels formed a partially armed service and just before World War I it was these armed units which formed the nucleus of the infant Royal Canadian Navy. The remainder of the government's marine force, known simply as Canadian Government Ships (CGS), later formed part of the Department of Transport fleet when this department was created in 1936.

In 1959 they became a separate entity within D.O.T. and were known collectively as the Canadian Marine Service (CMS). In January, 1962 the new name Canadian Coast Guard was chosen in recognition of the tremendous expansion in the fleet in the last several years.

Now more than 50 ships provide icebreaker service and Arctic supply, maintain navigation aids, conduct research and surveys, man the North Pacific ocean weather station, and undertake marine search and rescue and patrol duties.

To go along with the change in name—like a woman after buying a new dress—the Coast Guard decided to get some new accessories. A new color scheme for the ships and a distinctive funnel insignia were conceived to complement the royally-approved flag and badge designs.

Formerly a somewhat drab combination of black, white and yellow, today's ships have red hulls with a white superstructure (fitting since Canada's official colors are red and white).

To top the slick, clean effect a stylized red maple leaf and band on the funnels make the ships easily recognizable as Canadian Coast Guard vessels and tend to pick up the colorful, attractive design of the five special flags (the Jack, the Minister's, Deputy Minister's, Assistant Deputy Minister's (Marine) and Commodore's Burgee).

Introduction of the dolphin into the Jack and the badge was

(continued on page 8)



Badge



Jack



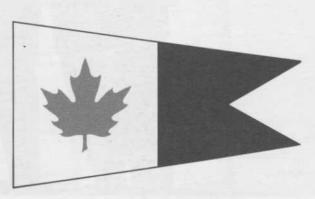
Minister's Flag



Deputy Minister's Flag



Assistant Deputy Minister's (Marine) Flag



Commodore's Burgee

the contribution of Mr. Beddoe. The dolphin is known as the friend of mariners—considerate of their welfare and sometimes carrying them to safety on its back. While its noble qualities seem at times to have been obscured, it has long been used to denote marine associations and is considered an appropriate symbol for CCG vessels.

Enclosed within a rope frame tied with a reef knot at the base (denoting a working service), the badge is surmounted by the Royal Crest to indicate that the Canadian Coast Guard is in the service of Her Majesty the Queen.

The dolphins are omitted in all of the flags but the Jack because the others are flown at the masthead or yardarm where intricate detail would be lost. The red maple leaf has, however, been given greater emphasis. It occupies two thirds of the area of each flag instead of half as in the badge.

The Minister's flag, like the badge, displays the Royal Crown above the maple leaf.

So much for the appearance of the flags. A flag, is only truly a flag when it is flying. And flying a Canadian Coast Guard flag involves much more than hoisting it up a pole to flap in the breeze any old time, any old place.

The Blue Canadian Ensign is flown by Canadian Coast Guard ships at all times when any ship is in sight or liable to be sighted. It is flown from first light to darkness.

The CCG Jack is flown at the jack staff when: 1) in harbor (at anchor, secured to a mooring or secured alongside) whenever the Blue Canadian Ensign is flying. 2) At sea the Jack is only flown at sea when she is dressed with masthead flags or when she has embarked or is escorting Royalty or Heads of State. In Canadian waters this includes H.E. The Governor General or a Lieutenant Governor within the waters of his province. 3) the Jack is not worn by ships in drydock except when they are dressed.

On certain anniversaries or when otherwise ordered CCG ships, whether in harbor or at sea, are dressed with masthead flags; i.e. Blue Canadian Ensigns, in addition to the normal Ensigns flown at each masthead (where two masthead Ensigns are flown, they are of the same size). The CCG Jack is also flown at the jack staff. On "Dress Ship" days men-of-war in harbor "dress overall". Since CCG ships are not fitted with dressing lines, no attempt to dress overall is made unless specially ordered.

Ships are dressed with masthead flags both at sea and in harbor on seven anniversaries: Accession Day, February 6; H.M. The Queen's birthday, April 21; Victoria Day—H.M. The Queen's official birthday, Monday preceding May 24; Coronation Day, June 2; H.R.H. The Duke of Edinburgh's birthday, June 10; Dominion Day, July 1; and H.M. The Queen Mother's birthday, August 4.

Personal flags are used to denote the presence on board a CCG ship of the Minister, the Deputy Minister, The Assistant Deputy Minister, (Marine) or an Honorary Commodore of the Canadian Coast Guard. They fly according to the following rules: a personal flag is to be broken at the fore-masthead when the official entitled to wear it comes on board (having previously arranged to fly his flag thereon) and struck when he leaves. If two or more officials entitled to a personal flag are on board the same ship at the same time, only the flag of the senior official will be worn.

The Commodore's Burgee flys on the lead ship in a convoy of CCG vessels to indicate the senior officer is aboard. When an official entitled to a personal flag is staying on board a particular ship, his flag remains flying in that ship day and night during the period he is embarked and will not be struck when he goes ashore with the intention of returning. Similarly, it will not be shifted to any other CCG ship he may visit unless he expressly orders this to be done. A personal flag cannot be worn in more than one ship at a time.



Seen aboard the CCGS ERNEST LAPOINTE with the Canadian Blue Ensign flying in the background are, left to right: J. Rankine Strang, director, ship-building; Gordon W. Stead, assistant deputy minister, marine, and Capt. Eric S. Brand, former director, marine operations. (Capt. Brand retired in Nov.)

Air Traffic Control Covers Canada's Northland

by A. J. Watson, Operational Research Officer, Civil Aviation

Since the early 1920's Canada's 3,000,000 square miles of northern bush, muskeg and mountains have echoed the roar of aircraft engines. Long before people in most southern communities had even seen an airplane, the trappers and Eskimos were learning to shrink long weeks of dog travel into scant hours of air time.

Now with the advent of long-range, turbine-powered aircraft a new type of flight is appearing in ever increasing numbers in the northland.

From Edmonton to Oslo, from Chicago to the Aleutians and Japan, from major centres all over North America to the Orient and Scandinavia, the shortest air routes lie over Canada's vast north. Scandinavian World Airline System was the first to take advantage of the short route over the polar regions and began scheduled flights in 1956. Since then the number of operators using the northern routes has grown to include Trans-Canada Air Lines, Canadian Pacific Airlines and international airlines of many other states.

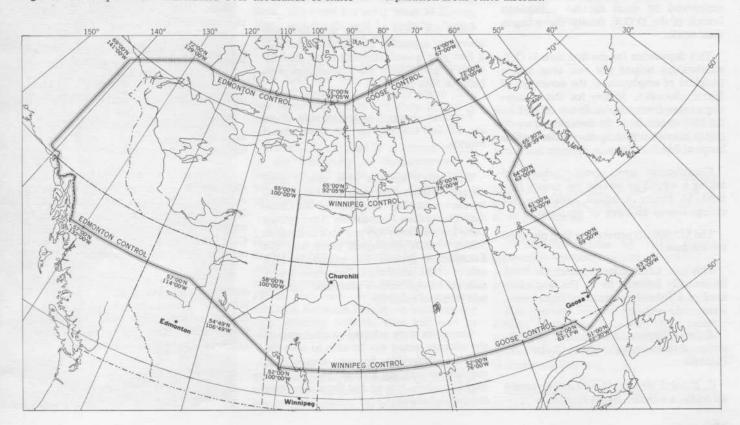
These flights are far different from the low-level operations of the bush pilot who still relies largely on visual map reading, his compass and his own good judgment to get his passengers and cargo safely to their destination. To the bush pilot beaching his float plane on some unnamed lake, the new flight appears only as a silent white vapor trail leisurely unfolding across the cold, blue sky. The great new bird doesn't serve the Arctic wastes. It is a transient, originating in the civilized centres to the south and with a destination in a far-off country or vice versa.

Flights are at high altitudes where jet engines are most efficient. High sub-sonic speeds are maintained over thousands of miles while the flight crews can give only little attention to the world outside their own flight deck. Down along our regular airways to the south high level flights such as these are provided with continuous air traffic services. The high fast flight is monitored by radar and the pilot can be in constant contact with D.O.T. air traffic controllers.

This sort of service to hundreds of flights daily across our southern airways is no small task in itself. On the other hand up to the present the jet pilot over-flying the three million square miles of northland has been pretty well on his own, uncontrolled from the time he leaves Edmonton, for instance, until he enters international controlled airspace over the North Atlantic or Pacific oceans. Giving him full control service is a task almost beyond imagination.

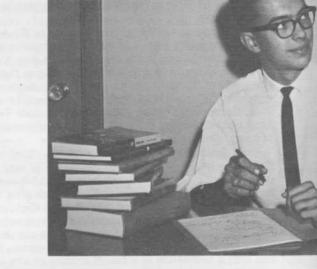
However, since January 1961, D.O.T.'s civil aviation branch has been developing systems and procedures that, combined with the capabilities of modern communications equipment, provide air traffic services throughout the north. The full system went into operation during September. All flights between 23–45,000 feet will get the same control service that is provided on the busy airways of the south. The flights are made according to Instrument Flight Rules and international standards for aircraft separation are applied. Pilots give position reports to D.O.T. aeradio stations such as those at Frobisher, Goose, Montreal, Churchill, Winnipeg and Edmonton; the beacons at DEW and Mid-Canada Lines and meteorological stations such as Cambridge, Resolute and Coral Harbour.

It took much planning and organization to provide passengers and crews of Arctic overflights with this greater margin of safety. Air traffic controllers at centres across the country carefully follow each flight across the barren reaches ready to provide information and advice and to maintain the all-important separation from other aircraft.



Ken Hryciw and Father
... embarking on aerospace research

Budding Scientists...



Twenty five thousand dollars—once the property of D.O.T. employees but now earmarked by them for the college-age branch of the D.O.T. family—have begun their work.

This September for the first time D.O.T. scholarships helped put two sons and a daughter of employees at the doorways of higher education. Money for the scholarships came from surplus funds created by the 1960 switch from the department's own group insurance plan to the Public Service Surgical Medical Plan.

Contributors were given a choice of taking a refund or leaving the money in a fund to ensure financial assistance for college-bound children of employees.

The \$25,000 left proves how they plumped for education.

This year's beneficiaries under the trust, incidentally believed to be the first of its kind in a federal government department, were:

Roberta Pattison, 18, daughter of Saskatoon meteorological officer Robert F. Pattison.

G. Kenneth Hryciw, 16, son of Edmonton air traffic controller Emile Hryciw.

Howard Baker, Jr., 17, son of Gander radio technician Howard Baker.

Each got \$400 to assist with first year university expenses. The fund makes only a first year award allowing more students to be helped than if the scholarships were held for four years.

Earnings—interest and dividends—from the \$25,000 will pay for the three annual awards.

This year's winners were named after 46 applications had been carefully sifted by the scholarship committee of the Canadian Universities Foundation. Applications came from almost every province and region where D.O.T. employees serve and the Foundation praised the extremely high calibre of the candidates, The winners were selected on the basis of scholastic standing and personal qualities.

Alternates were selected in case any of the winners would not be able to take the D.O.T. scholarship for any reason—for example by winning a larger award which might preclude him or her from accepting another scholarship. The alternates were:

Peter Dodd, 18, son of R. W. Dodd, chief, air traffic control, Ottawa;

Ian Angus, 18, son of K. C. Angus, superintendent, nautical safety, Ottawa;

Frederick Lutes, 16, son of W. R. Lutes, meteorological technician, Moncton, N.B.

Children or dependents of active as well as retired and deceased employees are eligible for the scholarships.

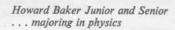
The Fund is administered by a scholarship board of trustees with Director of Administration and Personnel J. Roy Baxter as chairman, and the assistant deputy ministers of air, marine and economics, C. S. Booth, G. W. Stead and G. A. Scott, respectively, as board members.

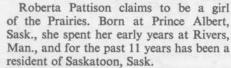
The three young people who hold the distinction of being the "first D.O.T. scholars" have ambitions as different as the places they come from. However, it is interesting to note that each is pursuing a career in some field of science.

Roberta Pattison and Dad . . . realizing a lifelong ambition









For as long as she can remember animals have been her first love and today her "family" includes a Shetland sheep dog, two part-Persian cats and three horses of various sizes and descriptions.

Roberta is enrolled in a science course at the University of Saskatchewan in Saskatoon and hopes ultimately to realize her life-long ambition of becoming a veterinarian.

The interest that occupies most of Ken Hryciw's spare time is building and flying model airplanes. Currently, he is flying a model with a three and a half foot wingspan powered by a miniature gas engine. He is also very interested in amateur rocketry, but since legislation rules out any such amateur activity, Ken has had to shelve plans to establish a club.

A student at the University of Alberta in Edmonton, Ken is embarked on a course leading to a Bachelor of Science degree in honor mathematics. He hopes his studies—

possibly in the field of astrodynamics—will eventually lead to a doctorate and a position with a corporation involved in aerospace research and development.

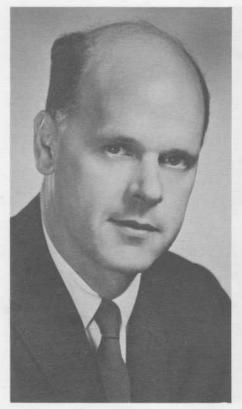
Howard Baker, a student at Dalhousie University in Halifax, is the only one of the three scholars whose studies take him away from home.

A Newfoundlander by birth, young Howard is working towards a Bachelor of Science degree. He intends to major in physics.

His interests include building electrical devices from kits, fretwork, sheet metal work and carpentry. And when it comes to sports, he joins his Western counterparts in listing curling first.

Congratulations to these first winners of D.O.T. scholarships.





Gilles Sicotte



Charles S. Booth



A/V/M A. de Niverville

Senior Staff Changes

In mid-September Minister George Mc-Ilraith announced that Mr. Gilles Sicotte of the Department of External Affairs was to become an assistant deputy minister of Transport effective September 30. He also announced that Air Vice-Marshal J.L.E.A. de Niverville, assistant deputy minister, air, would retire this autumn and that Senior Assistant Deputy Minister C. S. Booth would fill the position temporarily.

In Mr. Gilles Sicotte's new position as an assistant deputy minister, the Law and Real Estate branches will report through him. In addition he will act in a senior role as a general staff assistant to the deputy minister dealing with all fields of transportation.

Mr. Sicotte comes to Transport after more than 20 years of service abroad and at home with External Affairs. He was head of its legal division from 1954. Born in Montreal in 1918, Gilles Sicotte was educated at College de Montreal, College Brebeuf (Montreal) and the University of Montreal from which he received an LL.L (Licentiate in Law) in 1940. That same year he was admitted to the Quebec Bar.

After a year spent with an insurance company, Mr. Sicotte joined External Affairs. His first appointment was secretary of the Canadian Legation in Buenos Aires, Argentina. In 1944 he was transferred in the same capacity to Lima, Peru and a year later returned to Ottawa.

From 1947 to 1951, he was secretary of the Canadian Embassy in Mexico. He then returned to Ottawa to serve with the department's Latin American section. In 1952 he joined the legal division and two years later became its head. During his diplomatic career Mr. Sicotte served on several delegations. His most recent assignment was that of leader of the Canadian delegation to a conference on international air law dealing with the subject of crimes on aircraft engaged in international air services. The conference took place in Tokyo during September.

Mr. Sicotte is married and has two children.

Charles Stephen Booth, senior assistant deputy minister has been with the Department of Transport since 1954 and is temporarily taking over direction of the air services branch with its more than 9,000 employees.

Born at Malvern, Worchestershire, England in 1897, Mr. Booth came to Canada in 1912 and continued his education at Winnipeg, first at St. John's, then the University of Manitoba and the Manitoba Law School, receiving an LL.B. in 1924.

Mr. Booth practised law in Winnipeg for some 16 years, during which time he was commissioner and legal member of the Board of Review for Manitoba under the Farmer's Creditors Arrangement Act from 1937 to 1940.

In World War I he saw active service in North Russia as an RAF pilot. He continued his association with aviation in the RCAF (non-permanent) from 1921 to 1924.

He served overseas from 1940 to 1945 and during this time was Member of Parliament for Winnipeg North. As a brigadier he had the distinction of being the senior in rank of Members of Parliament in service. From 1943 to 1945 he was deputy adjutant general at Canadian military headquarters in London.

Returning from overseas, Mr. Booth was appointed secretary and legal adviser to the newly-created Air Transport Board. In 1947 he was appointed senior Canadian representative to ICAO and, in addition, held the positions of first vice-president of the Council of ICAO, 1951, president of the Assembly in 1955, and also chairmanship of various commissions and committees of the Assembly and Council, including those dealing with air transport, finance, administration and international air law. He was also first president of the Canadian Branch of the International Law Association, 1952–53, and was chairman of the

United Nations Joint Staff Pension Board, 1953-54.

Mr. Booth is holder of the Order of St. Stanislaus (Second Class) and was mentioned in despatches for his service in World War I. He was awarded the CBE for World War II service.

He is married to the former Zoe A. G. Stapley and they have a son and a daughter.

Air Vice-Marshal A. de Niverville joined the Department of Transport as district controller of air services in Montreal, in April, 1948. He was promoted to the position of assistant director of air services in 1953 and 11 months later became director, a title which was changed to director general, air services, in 1956 and to assistant deputy minister, air, in 1960.

Joseph Lionel Elphage Albert de Niverville was born in Montreal in 1897. He moved to Ottawa with his family at an early age and received his education there. In 1917 he joined the Royal Flying Corps as a pilot and was wounded while ground strafing in July, 1918. After being discharged from hospital he became a flying instructor in England. In 1919 he returned to Canada.

His military career went on for the next 25 years. In February, 1920, he was transferred to the RCAF reserve and in 1924 entered the permanent force on its formation. He served at Camp Borden, Vancouver and Ottawa headquarters where he was promoted to flight-lieutenant in 1927.

In 1931 Mr. de Niverville wrote the British Civil Service examination for inter-

preter French-English-French and achieved the best marks ever received by anyone up to that time since the examination's inception around the turn of the century. In 1933 he completed the RAF Staff College course at Andover, England.

In 1936 he became a squadron leader and was appointed air staff officer for Military District No. 4. In February, 1939, he was back at Ottawa headquarters as air staff officer for organization. A few weeks later he was promoted to wing commander.

Early in 1940 he was sent to England by the Canadian Government, together with two other senior officers, to observe the methods and organization of the RAF. Their report was most useful in setting up the British Commonwealth Air Training Plan.

In 1940 the former World War 1 pilot was promoted to group captain and appointed director of air force manning. A year later he became air officer commanding No. 3 Training Command at Montreal and was promoted to air commodore. Appointment to air vice-marshall came in 1942. In 1943 he became air member for training at Ottawa headquarters and remained in that position until he retired in August 1945 as the highest ranking French-Canadian officer in the RCAF.

In recognition of wartime services A/V/M de Niverville was named Companion of the Order of the Bath and was also decorated by the United States, France and Czechoslovakia.

He is married to the former Emila Noel. They have nine sons and three daughters.

appointed HALIFAX AIRPORT MANAGER

Donald L. Forbes, formerly a wing commander in the RCAF, was appointed manager of Halifax International Airport in August.

Born in Nova Scotia in 1941, Mr. Forbes received his education in Nova Scotia and New Brunswick. He graduated from the University of New Brunswick in 1939 with a B.Sc. degree.

His career in aviation dates back to 1939 when he received his first instruction at Halifax Flying Club. He joined the RCAF and in 1940 was sent overseas, returning to Canada in 1942. Various tours both at home and abroad followed during and after World War II. Mr. Forbes graduated from the RCAF Staff College in 1950.

Other RCAF positions held by the new airport manager: staff officer, posting and careers at headquarters; senior personnel staff officer at 14 group headquarters; and RCAF representative to the military agency for standardization, a NATO agency in London, England.

In 1959 W/C Forbes was transferred to RCAF Station, Torbay, Newfoundland where he was commanding officer until his retirement from the air force this year.

Mr. Forbes is married and has three children.





R. A. Hornstein (left) accepts the Patterson Medal from his "boss", Dr. P. D. McTaggart-Cowan, director of the meterological branch—RCAF PHOTO

"Mr. Weather" of the Maritimes Awarded Patterson Medal

Reuben "Rube" A. Hornstein, chief forecaster at the meteorological branch's Halifax Weather Central was presented with the Patterson Medal at the Canadian International Air Show dinner held at the time of the Canadian National Exhibition.

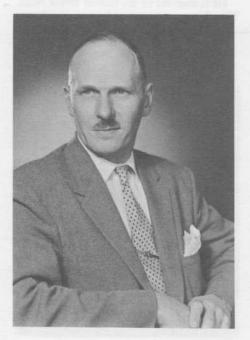
The Patterson Medal, established in honor of Dr. John Patterson, director of the meteorological service from 1929 until 1946, is awarded to residents of Canada for distinguished service to meteorology. It is not necessarily awarded annually, but only when in the opinion of the award committee there is a nominee worthy of it.

Dr. P. D. McTaggart-Cowan, director of the meteorological branch, pointed out in making the presentation that "Rube" Hornstein has perhaps visited more Canadian homes and contacted more people in Canada than any other scientist, In radio he was a household word in the Atlantic Provinces for 13 years of Sunday evening weather programs "Meet Your Weatherman". For nine years his national program "Ask Your Weatherman" provided easilyunderstood yet scientifically-accurate answers to weather questions. Since 1955 he has appeared on the TV program "Gazette", both as a weatherman and as a skillful interviewer

Mr. Hornstein is also well known for his popular booklets "Weather and Why", "It's in the Wind" and "Weather Facts and Fancies" all of which have sold in the thousands. "Rube" hastens to point out that the revenue enriches the coffers of the Receiver-General of Canada and not his own purse!

"Rube's" fame in the Maritimes is illustrated by the fact that a box of fudge, addressed to "Intermittent Drizzle", Halifax, was promptly delivered to his desk.

The citation accompanying the Patterson Medal Award concluded with the tribute "Mr. Hornstein is dedicated to bringing the best possible service in meteorology to all people in the Atlantic Provinces and to bringing an understanding of meteorology to every young Canadian.



Appointed University President

Dr. P. D. McTaggart-Cowan, director of the meterological branch, has been appointed president of Simon Fraser University at Burnaby, B.C. effective Janaury 1, 1964.

In a press release concerning the new appointment, Minister George McIlraith said, "Dr. McTaggart-Cowan has been a fine administrator and a dedicated civil servant".

Patrick Duncan McTaggart-Cowan was born in Scotland and came to Canada at an early age. He graduated from the University of British Columbia in 1933 with first-class honors in mathematics and physics. A Rhodes Scholar, he attended Oxford and graduated with an Honors degree in the Natural Sciences. In 1961 UBC conferred upon him the honorary degree of Doctor of Science, Honoris Causa

Joining the Canadian meteorological service in 1936, Dr. McTaggart-Cowan

was posted to Botwood, Nfld. From 1937-42 he was in charge of the meteorological office there and at Gander.

Over the years Dr. McTaggart-Cowan has been active in the formation and operation of the World Meteorological Organization. As well, he has been a Canadian member of numerous ICAO meetings and has worked closely with the North Atlantic Treaty Organization in the regional planning group respecting meteorology for NATO forces.

The new university president was recognized for his services to Canada when he was awarded the M.B.E. and Coronation Medal. His part in aviation was recognized when he received the Robert M. Losey award from the Institute of Aeronautical Sciences in the United States. This latter award was made for his "outstanding contributions to the science of meteorology as applied to aeronautics".

Long Service Employees Retire

Three long-service employees of the department went on retirement leave during September. Wilfrid M. Marshall, a past president of the Professional Institute of the Public Service of Canada, and Allan G. MacLennan, wound up their government careers with 36 and 37 years respectively, while Telford (Ted) E. Orr called it a day

after more than 47 years.

Born in Halifax, Nova Scotia, Wilfrid Marshall was educated at Halifax County Academy and Dalhousie University. He joined the civil service in 1927 as an engieering clerk at the Dominion Observatory and work on the radio time service. Later he became an investigator, national development and then investigator, mines.

Mr. Marshall served in the Artillery during World War I and the RCAF in

World War II.

After his RCAF service, he returned to the Department of Mines. In 1946 he transferred to the Department of Transport as a radio interference engineer. Subsequently he was promoted to superintendent, technical training and manuals and at the time of retirement was radar maintenance engineer.

Active for many years in the Professional Institute, Mr. Marshall served on the executive of the electrical and electronics enginneers group in several capacities. He was also a member of the national executive as head of several committees, vice-president

and, in 1960-61, president.

Allan (Mac) MacLennan, a native of Gladstone, Manitoba, was educated at the local high school and Manitoba Agricultural College. He joined the Great Lakes service of the Canadian Marconi Co., in 1926 and, after two seasons as a radio operator on Upper Lake vessels, joined the former Department of Marine and Fisheries in 1928.

His duties as radio operator during the next six years took him to Mile 356 (Hudson Bay Railway), Churchill, Manitoba; Canso, Red Head, Halifax and Yarmouth, all in Nova Scotia; and Nottingham Island, N.W.T. In 1934 he was promoted to a radio inspector in Toronto. From then until 1948 he carried out a variety of duties for the department in



W. M. Marshall, second from left, and A. G. MacLennan, second from right, were honored at a buffet supper prior to their retirements. In the photo seated are: Mrs. MacLennan and Mrs. Marshall. Standing, left to right: A. G. Nixon, director, telecommunications; Mr. Marshall, Mrs. Nixon, Mr MacLennan and Earl F. Porter, chief telecom, maintenance and operations.

different parts of Canada and then joined the headquarters maintenance and operations staff there he remained until retire-

Co-workers of Wilf Marshall and "Mac" MacLennan held a buffet supper on September 26th at the Bytown Navy Officers Mess to honor them.

"Ted" Orr was born at Navan, Ontario, just a few miles from Ottawa. He spent most of his life in Ottawa where he was educated at Lisgar Collegiate and LaSalle Extension University. In 1915 he joined the

former Government Telegraph and Telephone Service as auditor. When the service was incorporated into the Department of Transport in 1936, he continued in the same capacity.

During his lengthy government career, Mr. Orr travelled extensively thoughout Canada and will be remembered by D.O.T.'ers in almost every province.

Friends and co-workers honored Mr, Orr on his last day of work, Friday, September 13th, and presented him with a radio and other gifts.



Guest of honor Orr takes the wraps off a gift radio at celebrations marking his retirement. He gets an assist from H. J. Williamson (back to camera), chief engineer, telecom research, development and programming.

We all know that money isn't everything—but, we also know that it's pretty nice to have lying around, safely stashed away in the bank or jingling merrily in our pockets, and surely none of us are adverse to latching on to as much of it as we can.

With that in mind, why not take advantage of the government's suggestion award plan which pays for ideas that save time or money on the job, or offer an intangible benefit such as safety, convenience, etc.?

Two dozen and one D.O.T.'ers have made money—or its equivalent—for their ideas in recent months.

Yvon Brunelle, an electrician at Montreal International Airport, came up with a modification to the belt guards on the air conditioning units at the terminal. Since it allows quicker inspection of the fan belts and facilitates routine maintenance, a \$20 award-in-kind was granted.

Mr. Brunelle selected a camera, heating pad and wallet as his gifts.

A suggestion made by Radio Inspector J. R. A. Levasseur of Sault Ste Marie, Ontario, has resulted in the consolidation of the radio ship station regulations on a scheduled basis. His idea provides an improved service to the public and to departmental personnel who are required to administer the regulations.

Granted a \$15 award-in-kind, Mr. Levasseur chose a travalarm clock, and a dipless desk pen set.

Mrs. Ghislaine Hurley, a stenographer with headquarters administration and personnel, was awarded a \$10 award-in-kind for a recent suggestion. She recommended that promotion rating guide forms and board members' work sheets be preprinted rather than typed individually when needed.

These forms are now being used for all competitions since a savings in typists' time resulted.

Mrs. Hurley selected a mahogany clock as her award.

Ray Hancock, a radio technician at London, Ontario, recommended that provision be made when designing operations and terminal buildings of more than one floor for the delivery of heavy equipment. This will be done in any buildings where freight elevators or internal access shafts are not suitable.

Mr. Hancock chose a two-burner camp stove when informed he had won a \$20 award-in-kind.

Radio technician J. G. Fraser was granted a \$10 award-in-kind for suggesting

A PENNY — OR MORE —

that two holes large enough to reach through be cut in the panel cover of LF radio ranges to allow the operator to see and reset the breakers.

Drilling the holes as suggested was not practical since there would always be a danger of coming in contact with live parts. However, Mr. Fraser's suggestion was responsible for having the reset buttons modified so they are now flush with the power supply panel. Mr. Fraser, who is located at Sandspit Airport, B.C., chose a travalarm clock as his award.

Radio Operator J. D. Williamson of Ethelda Bay, B.C., received a gas picnic stove (a \$10 award-in-kind) for recommending that recreational equipment at isolated stations be periodically interchanged with other sites. A greater variety of equipment will be available to the stations and staff morale should be improved.

N. S. Hutton, a Victoria, B.C. radio inspector, selected automobile seatbelts when informed his submission had been accepted to amend traffic schedules at Victoria marine radio station. Replies from vessels may now be transmitted during the same watch-keeping periods, improving ship/shore services.

A radar lite and heating pad went to R. Bruce Stanton for a suggestion he made. A radio inspector at headquarters, Mr. Stanton suggested that a special $15 \times 9\frac{1}{2}$ inch envelope with metal fastener be used for mailing printed matter. As he pointed out, this results in savings in postage.

Bernie Glowienka, a draftsman with the construction branch at Winnipeg, submitted an improved shipping label for sending supplies to northern sites. The label indicates shipment number, number of pieces involved and a separate number for each item. It is expected this will facilitate checking and control of supplies during the 1963–64 shipping season.

Mr. Glowienka selected a power drill, a tourist camp stove and a radar light as his \$40 award-in-kind. Wilf H. Clark, a machinist at Prescott Marine Agency suggested a minor modification be made to the clockwork mechanism used to rotate the optic in a lighthouse tower. His suggestion concerned a casting for a more rigid and improved mounting.

As his \$15 award-in-kind, Mr. Clark selected bathroom scales and a radar light.

Two Vancouver air traffic control assistants received \$10 awards-in-kind for a joint suggestion they made. James Jack and Miss Tamara Brooks, recommended that Form 28-0055 Flight Plan be revised to include "place and method of reporting arrival".

Mr. Jack selected a heating pad and wallet as his award, while Miss Brooks chose a radar light.

Roland Richards, a meteorological technician at Sydney, N.S. airport, received a \$15 award-in-kind for suggesting that the

Mrs. Amelia Storey, a Toronto air services stenographer, receives her award-in-kind from H. J. Taylor, regional superintendent of air regulations. Others in the photo are: H. M. Wilson, regional controller, civil aviation (left) and R. A. Peckham, office manager.



For Your Thoughts

rating factors on Form E-8-130 (Annual Performance Evaluation) be numbered. He chose a set of copper hand-tooled pictures and a dipless desk pen set.

Gerard B. Salmon, meteorological technician in Montreal Region, recommended that the hot water tank in the radiosonde operations building at Sept Iles, Quebec, be insulated to effect a savings in electricity. He selected a travalarm clock as his \$10 award-in-kind.

Miss M. E. Gauthier, technical officer at Montreal Air Services, suggested that the drapes at the entrance way to the Montreal ATC centre be protected by clear plastic to reduce frequency of cleaning.

Miss Gauthier selected an electric alarm clock and a travalarm clock as her \$15 award-in-kind.

T. B. Heslop, a technician at the Regional Materials Laboratory, Vancouver, recommended the duty run to Vancouver International Airport be used for delivery of mail and small items to the laboratory which is on the way. A regular daily service is now provided and Mr. Heslop received a \$10 award-in-kind. He chose an electric alarm clock.

Mrs. Edna M. Crawford, a punched card operator at meteorological headquarters, recommended that a machine-produced colored card be used to separate individual decks of reproduced cards sent to the U.S. weather bureau.

The suggestion was tried and found to be successful. It saved the time previously required to type tab cards and also saved material. Mrs. Crawford, granted a \$15 award-in-kind, selected an electric alarm clock and a heating pad.

Three \$10 awards-in-kind were recently granted to *Ronald D. Hughes*, a Bull Harbour, B.C. radio operator.

His suggestions were: -that Notice to Mariners issued by Bull Harbour concerning the radio beacon station at Quatsino, B.C. also be sent to Tofino for broadcasting.

— That the Bull Harbour Marine radio local weather broadcast schedule be changed from 0940 PST to 0840 PST. This suggestion was adopted since the weather observations are available at the time suggested. Local fishing interests depend on these broadcasts for their daily operations.

 That a local weather observation be taken by Scarlett Point Light Station and broadcast by Bull Harbour and Alert Bay radio three times daily at their scheduled local weather broadcast times.

Since all three of Mr. Hughes' ideas result in improved service to West Coast shipping, they were adopted and he was granted the awards-in-kind. He combined the awards and selected an electric fix-kit valued at \$30.

Thomas Hurst, a radio technician at Ottawa aircraft radio workshop, designed an apparatus for evacuation of air from and introduction of nitrogen into type L-11 hermetically sealed A.D.F. Since such a device permits servicing of the loops, he recommended that it be used at the Ottawa workshop.

The apparatus not only improves work methods, but results in a savings of approximately \$400 annually. A \$30 award was granted and Mr. Hurst chose cash. "To buy his wife a new hat," he said.

J. C. R. Gagne, a meteorological communicator at Montreal International Airport, is richer by \$20 as the result of a recent suggestion. He felt that meteorological teletype relay offices should be supplied with blank teletype and facsimile charts preprinted with lines and headings, on Krona-Film Base celluloid sheets. He pointed out if the data was entered in pencil or washable ink, day to day changes could be made easily.

Mr. Gagne was granted an award since his suggestion resulted in improved work procedures. He selected a radar lite and an electric alarm clock.

James H. Whiteside, a Bull Harbour radio operator, has done it again. The adoption of his most recent idea, brings the total number of suggestions he has had accepted to six.

He recommended the use of equivalent heat dissipating caps on various tubes in the Measurement Engineering Transmitter type M500. Since this results in the life span of expensive transmitter tubes being extended, Mr. Whiteside was granted a \$15 award-in-kind. He chose a travalarm clock and a heating pad.

Mrs. Amelia Storey, a civil aviation stenographer at Toronto, devised a new form for license renewal certificates. As a result forms are now being printed in pad form and work procedures have been improved. Granted a \$15 award-in-kind, Mrs. Storey selected a ladies' overnight case.

S. J. Sweetapple recommended that Form 40-0026 be revised so that radio beacon monitoring stations can record monthly on one sheet all radio beacons monitored. Formerly it was necessary to fill out a separate sheet for each beacon.

Mr. Sweetapple, a Port Arthur radio operator, selected a four-piece set of crystal when advised he had been granted a \$15 award-in-kind.

Radio operator L. M. Furnell of the Ladner, B.C. monitoring station, advised adoption of a viewing shield with an instrument having a cathode ray tube as a visual indicator. He pointed out that such a device would eliminate eye strain.

A suitable viewing shield has been fabricated and sent to all monitoring stations. Mr. Furnell was granted a \$15 award-in-kind and selected a camera outfit and wallet.

A \$20 award-in-kind was made to J. A. L. McDonald for suggesting the appropriate regional file number of the region issuing a license renewal certificate be typed on the lower part of the certificate. He pointed out that since this part is torn off and sent with the medical report to a regional office, it would not be necessary to look up the file number in a cross-reference index.

Since a savings in time results, Mr. McDonald, a clerk at Montreal International Airport, received the award. He selected a radar-lite and a place-setting of flatware.

DOT'S Interesting



Victoria—Twenty-two members of air service and marine branches here participated in a golf tournament early in September. The tournament is an annual event held at the Ardmore Golf Course on Saanich Peninsula, some 15 miles from Victoria.

Over-all winner in this year's tourney was J. V. Ball, while L. P. Glover and B. V. Green won hidden scores and Mrs. B. N. Unicome was a runner-up. (See photo below)

Ottawa—"People are usually quick to inform authorities about something not to their liking, but are often not quite so quick to let them know if something pleases or impresses them". So said Mrs. L. MacDonald of Toronto in a recent letter to Minister George McIlraith.

Mrs. MacDonald told Mr. McIlraith about a boating accident at Burleigh Falls on the Trent System. Apparently her husband suffered a badly cut hand and Lockman Jim Debenham volunteered to drive the couple to Lakefield, Ontario. Finding no doctor available, Mr. Debenham waited until the couple was able to contact the Peterborough Hospital and make arrangements for transportation there. He then returned to Burleigh Falls and notified the MacDonald's friends.

Later, Mrs. MacDonald continued, they tried to repay Mr. Debenham for his kindness and out-of-pocket expenses, but he would accept nothing other than their thanks.

It is this kind of "public relating" which gives the Department of Transport a good name.

Ottawa—On Monday, September 23, D.O.T. said goodbye to an old and faithful friend when Minister George McIlraith officially turned the CF-CCT, a Lockheed 12A, over to the Honorable Arthur Laing, minister of Northern Affairs and Natural Resources.

The historic aircraft, has been continuously in D.O.T.'s service since 1937 when it made the first Trans-Canada dawn to dusk flight (see July/August News on the DOT). It was retired in June for lack of spare parts—not spunk. It's fate, however, is not obscurity since it will be on display with the National Aviation Museum's collection of old aircraft.

Taking part in the September 23rd turnover ceremony was Superintendent of Flight Operations Jack Hunter, who was co-pilot on the history-making 1937 flight from Montreal to Vancouver.

In the photo Mr. McIlraith hands over the aircraft's logbook to Minister Laing. Mr. Hunter is at the left,

Montreal—On October 1st spools of magnetic tape started whirling and an output printer clattered out its first chart as Minister George McIlraith pushed a button to commission the new meteorological computer at the central analysis office at Montreal International Airport.

The computer, a Bendix G-20 leased from Computing Devices of Canada, digests basic meteorological data at a rate of 100,000 computations per second and produces weather charts showing actual and expected distributions of pressure.

"The meteorologist still retains his role as a forecaster", Mr. McIlraith said, "for he must interpret the charts and use them to prepare the forecasts for general distribution."

The computer takes over many of the tasks now carried out by meteorologists and frees them to interpret the computer product and provide more specific weather information for aviation, agriculture and mariner interests and the general public.

Techniques to solve the equations of motion applicable to the behaviour of the atmosphere were developed as early as 50 years ago but could not be usefully applied until the advent of highspeed electronic computers.

Modern meteorology requires the processing and analysis of data gleaned from thousands of observing stations but only a computer can process it fast enough to give a timely analysis. To produce a chart showing expected pressure distributions 36 hours ahead, the G-20 computer performs 14,000,000 arithmetical operations in six minutes.



Toronto—Early in September six members of the Toronto Regional (Air Services) recalled long-service awards presented by D. P. Glen, regional director. The recipients were Wilfrid Turnbull, H. S. Williams, A. C. Flick, F. D. Thompson, T. Weacek and F. J. Maddott. (Photo above)

Frobisher Bay, N.W.T.—A USN tanker took an incorrect course in attempting to find Frobisher harbor, but was saved from almost certain grounding by an observant meteorological technician. A. J. F. MacLeod spotted the vessel's difficulty and called aeradio who in turn alerted the ship about the impending destruction inherent in maintaining such a course.

Ottawa—To anyone asking "What's new in air services these days?", the answer must be, "New terminals to be opened soon at Winnipeg, Edmonton and Toronto International Airports.

There are, however, a number of smaller terminals near completion and they will add substantially to the comfort of passengers and the efficiency of air travel in Canada.

From West to East, new terminals are about to be opened at Victoria, Kamloops, Yellowknife, Sault Ste. Marie and North Bay

Still under construction is a new terminal at Fredericton, while construction will soon be started on one at London, Ontario. Finally, important renovations and extensions will soon be underway at Moncton and Lakehead (Fort William/Port Arthur) airports.



Montreal—F/S Pierre Boivin, an 18 year-old air cadet with 621 Canadian Squadron, won the William English trophy as the top cadet of 42 trainees (including one girl) who learned to fly this summer.

Best-cadet-of-the-year Boivin is the son of H. Boivin, a D.O.T. electrician at Montreal International Airport (Dorval).

He was presented with the trophy by TCA's C. S. Hewitt, regional operations manager, overseas region.





Canadian Coast Guard ALBUM

ccgs NARWHAL

A depot vessel, the Narwhal was completed at the yards of Canadian Vickers, Montreal in July, 1963

LENGTH: 251 feet, 6 inches

BREADTH: 42 feet

DRAFT: 12 feet

POWER: Two diesel engines totalling 2,000 brake

horsepower, twin-screw

GROSS TONNAGE: 2,158