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PAGE



OUR COVER

Roman J. Stankiewicz, an architect in the construction branch, air services, is the creator of this month's cover, as well as the cartoon sketches which accompany "Short-Order Builders" on pages 4-7.

Mr. Stankiewicz came to Canada from Poland in 1955 and spent five years as an architect with the Department of Public Works before joining Transport in 1960.

A SEAT BELT FOR EVERY DRIVER

The Canadian Highway Safety Council is urging the use of seat belts by every driver in Canada.

The Council declares that the use of seat belts in cars would prevent one-third of Canada's annual traffic fatalities.

To give added impact to their claims, the Safety Council cites two accidents in which Roy Campanella, former star catcher for the Brooklyn Dodgers, was involved. Campanella was not wearing a seat belt in 1958 when his car skidded on wet pavenient at 30 miles an hour, and he emerged with permanent paralysis from the shoulders down. But he was wearing a belt in 1959 when the car in which he was being driven, going 40 miles an hour, was in a crash. Campanella was not injured, but the three other occupants, not wearing belts, were hospitalized.

Installing seat belts, however, is merely a first step toward greater safety, cautions the Council. "Belts," says the CHSC, "are useless lying limp on the seat. The key word is 'use'".

To minimize the risk of personal injury in the event of an accident the Treasury Board recently announced that seat belts will be installed in crown-owned vehicles and the Bell Telephone Company says that its 5,700 vehicle fleet—the largest private fleet of cars and trucks in the nation—is now being similarly equipped.

How about you? Do you have seat belts?

CONTENTS

P	AGE
Le Mot du Sous-Ministre	
From the Deputy Minister's Desk	3
'Short-Order' Builders	4
A Holiday To End All Holidays	9
Foto Feature	12
Planes Aflyin'	14
OOTS On The Map	15
The Big Pay-Off	16
Retirements	18
Mr. Guintu Goes to School	20

News on the DOT

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LE MOT DU SOUS-MINISTRE

FROM THE DEPUTY MINISTER'S DESK

J. R. Baldunin

MAINTENANT que l'été s'annonce et que les journées ensoleillées se feront plus nombreuses, plusieurs parmi vous songent aux vacances, et pour cause. Je dois vous avouer que j'y rêve aussi moi-même.

Il se manifeste de plus en plus dans le monde des affaires et de l'industrie une tendance à échelonner plus également les vacances sur les douze mois de l'année. Les employés qui doivent assumer un fardeau plus lourd du fait que les vacances sont prises au cours de l'été déjà trop court s'en voient ainsi soulagés.

Le fait d'échelonner ainsi les vacances sur toute l'année contribue à démontrer que celles-ci n'offrent pas qu'un seul aspect; les touristes sont de plus en plus attirés par le ski au Canada ou par d'autres divertissements qui sont à leur portée au cours des vacances en hiver. Le printemps est magnifique dans tous les endroits du pays, et on peut jouir de ses attraits sur le littoral ouest tandis qu'il y a encore suffisamment de neige en d'autres endroits pour les adeptes du slalom.

On peut se rendre maintenant du jour au lendemain dans d'autres pays ou d'autres régions aux climats différents, en bénéficiant des nouvelles facilités de transport et des tarifs réduits. A presque n'importe quel temps de l'année, on peut choisir le climat et l'ambiance où on aimerait passer ses vacances, et la plupart du temps l'endroit de ses rêves peut être atteint facilement.

L'été est la période de pointe au ministère des Transports. Plusieurs parmi nous ont pris l'habitude de prendre leurs vacances en hiver, car il est impossible de prendre de longues vacances en été à cause de l'accumulation de travail. Les pilotes de la marine, les gardiens de phare, le personnel préposé au ravitaillement des postes du Nord, ceux qui voient à la réalisation de nos programmes de construction, tous ces gens donnent une bourrée durant l'été et jouissent d'une période creuse (au cours de laquelle ils prennent leurs vacances) à la fin de l'automne, en hiver ou au début du printemps.

On doit favoriser l'échelonnement des vacances sur toute l'année. Sauf dans certains cas particuliers, l'employé devrait jouir de la plus grande latitude possible dans le choix de la date de ses vacances, compte tenu évidemment de sa classe, de son ancienneté et des exigences d'ordre général en matière de direction. Ceux d'entre vous qui aimeraient, à titre d'essai, à prendre leurs vacances en d'autres temps de l'année qu'en été ne feront que répartir la somme de travail plus également. Ils sont assurés à cet égard de l'entière collaboration des surveillants.

A ceux d'entre vous qui prendrez bientôt vos vacances, bonne santé et beaucoup d'agrément. Quant à ceux qui préfèrent les prendre à un autre moment, mes meilleurs voeux les accompagnent.

THE thoughts of many of you are turning to vacations with the approach of summer sunshine. I can't say that I blame you; my own thoughts move in the same direction.

There is a growing trend in business and industry towards spreading vacations more evenly over the full 12 months of the year. This eases the severe impact to staff when summer vacations are crammed into our all too-short summers.

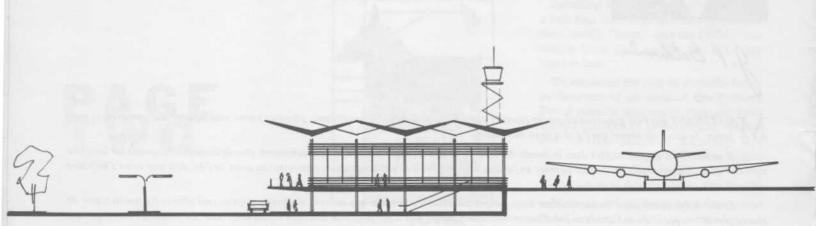
As well, the spread-out plan widens holiday horizons: Canadian skiing or winter holidays are fast becoming major tourist features. Spring is beautiful anywhere, and it comes on the west coast while the snow is still fine for the slalom elsewhere.

Now, too, with new travel convenience and low economy fares, other lands and regions with different climates are just around the corner. At almost any time of year you can pick the temperature and surroundings you want for a holiday, and almost always find it within reach.

Summer is the busiest time of year in the Department of Transport. Many of us already have a winter vacation habit because work prevents extensive summer holidaying. Marine pilots, lightkeepers, northern supply staff, those connected with our construction programs—all put forth concentrated efforts during the summer and have their slack period (in effect, their vacation period) during the late autumn, winter or early spring months.

The tendency for vacations to be spread over the year is to be encouraged. Except in special circumstances, the maximum degree of choice concerning vacations should be given to the employee, consistent, of course, with classifications, seniority and general management requirements. Those of you who wish to try vacations at periods of the year other than summer will, in effect, be spreading the workload more evenly. Supervisors extend maximum co-operation for this purpose.

To those of you who will be taking holidays soon—good health and enjoyment. To those who decide to wait and try a vacation at some other time
—my best wishes.



"SHORT-ORDER" BUILDERS



by E. Daoust*

URGENT—a new meteorological station to be built in the Arctic

MOST URGENT—a new airport to be in operation without fail next month

HURRY! HURRY!—drawings and specifications to be completed on target—or else!

Forty-six men of D.O.T.'s architectural staff of air services construction branch live with such "ultimatums" every day.

Because every day these 26 architects and 20 technicians and draughtsmen—along with other Canadian authorities—are coping with the biggest workload in civil aviation history.

The Dominion Bureau of Statistics says:

- air traffic in Canada almost doubled in the five years from 1954 to 1958
- in '58 and '59 so great was the crest of the civil aviation boom the government earmarked \$600,000,000 for capital investment

For not-too-future-delivery the designers are talking of 250-passenger supersonic jets. Already the 170-passenger DC 8's have brought about a minor revolution.

The jet age has broken the airport design barrier as well as the sound barrier.

Popularity of sonic air travel—and, more important, its expected growth—means facilities must be designed with built-in flexibility.

D.O.T.'s architectural staff wrestles with this flexibility every day: part of a typical monthly priority list shows a coast station for Newfoundland; a transmitter building for Nova Scotia; a

^{*} Chief Architect, Architectural Design Division, Standard Terminals and General Building, Construction Branch, Air Services.

maintenance garage and firehall for Montreal International Airport; a weather surveillance radar building for Quebec City; an air terminal for London, Ontario; a magnetometer building and seismograph vault, as well as an ionospheric station, for the North West Territories; a rawinsonde building for the Yukon; a powerhouse and dwellings for Cape St. James, B.C.; a surface weather station for Chatham, B.C.; and an ILS runway for Port Hardy, B.C. In all, more than 100 projects a year.

We often hear the trite statement that government departments are slow getting into gear and never do shift into high! But anyone aware of the problems and responsibilities that face D.O.T.'s construction branch would hesitate to endorse such a broad statement.

It is estimated in 1961-62 air terminal and general building plans, costing slightly more than \$39 million, will slide on and off the drawing boards of department architects.

Generally, two architectural solutions for two different needs must be found.

One is for terminals, where the department often finds itself as a patron of the architect and the arts; and occasionally subjected to vehement artistic criticism in letters to the editor columns across the country.

The other is for general buildings where functional and highly technical requirements rule, no matter what shapes result.

Air terminal projects are of two kinds: international—large, complex and multi-million dollar; or domestic—smaller, built for a few hundred thousand, but nevertheless proportionally complex.

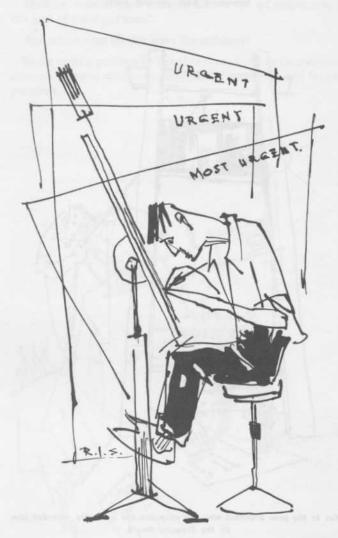
"The goal to achieve in designing domestic terminals and general buildings is to build a simple, non-monumental structure that can be maintained inexpensively, and that still reflects the architectural character of the local community."

And that's easier said than done. D.O.T. air services buildings are dotted all over the country: near the sea, in the mountains, in the north, and hugging Canada's southern fringe.

Architects run into different climatic and soil conditions; preference must be given to regional materials, so local supply problems must be studied; shipping dates looked into.

The job of Canada's 1200 air and seaplane bases (135 of them owned and operated by D.O.T. itself) is to get users off the ground and into the air with the maximum of dispatch, the minimum of dallying.

This is the goal. To achieve it we have our ideas, and the carriers have theirs. In fact, at times it seems the carriers have almost as many ideas as to their requirements as there are carriers.



Every project has a high priority tab:-URGENT-MOST URGENT-

Should we use fingers or aeroquays for gate positions? Should the design incorporate one, one-an-a-half, two or more levels to handle the traffic? Where do aviation services—meteorology and air traffic control, as well as customs, immigration, ticket wickets and concessions—fit into the picture? What is the growth potential?

And standing over the architect's shoulder every time he picks up his pencil is a fiscal big brother—the Honorable the Treasury Board.

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Woe to the poor architect who has exceeded the authority accorded him by the Treasury Board.

The Board scrutinizes plans and drawings at various stages, and compares them to the original concept and its estimated cost.

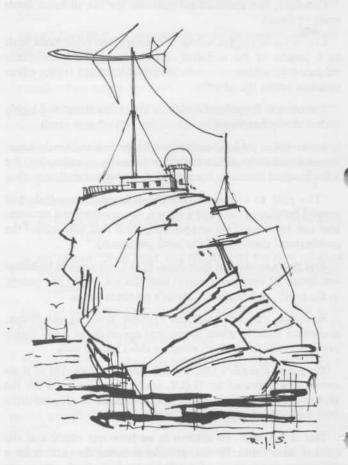
Woe to the poor architect who has exceeded the authority accorded him by the Treasury Board.

Sometimes it is very tempting. Especially when telecommunications and electronics branch want one of their more than 200 radio ranges built on top of a mountain.

We think they may take a sadistic pleasure out of shipping over one of their "summit specials" to the construction branch. The kind where they request that the top of a mountain be sliced off to install a V.O.R. station. (This actually happened recently when we were required to design such facilities for Enderby, B.C.)

There could be no more exciting, no more stimulating challenge to the designer than to solve such a problem, but we in the trade are certain that his useful life expectancy is shortened in proportion to the problem. The bigger the problem, seemingly, the older we get!

Then there are the telecommunications stations scattered across the country to answer the prayers of pilots on stormy



Some V.O.R. and N.D.B. are located at the top of mountains or other inaccessible sites.

nights. These radio aids buildings are usually small, odd-shaped structures wrapped around extremely complicated, expensive equipment.

Other queer-looking edifices are built for weather services and given names to match:

- a hydrogen generator building—a two-room unit housing equipment and supplies and with large overhead doors for releasing up-to-14-foot radio-sonde balloons
- a balloon inflation shelter—a small, one-room unit for storing hydrogen cylinders and inflating small pilot balloons
- an ozone building—a domed-structure housing a spectrophotometer for measuring ozone in the air
- a rawinsonde building—one which provides office space and an instrument storage room surmounted by a tower enclosure which houses an electronic balloon tracking unit
- a theodolite shelter—with a metal dome and sliding panels to house a theodolite and provide an area for inflation of pilot balloons

Meteorological reports and forecasts are, of course, necessary to the aviation industry, but many architects have lost their wits and their hair trying to colonialize or modernize these structures! Doric, Ionic and Corinthian columns are out. One wag on our staff has observed, "Even Frank Lloyd Wright would wring his hands!"

Requests for out-of-the-ordinary buildings also come from other departments—Mines and Tech Surveys might need a magnetometer building and seismograph vault (to bury dead earthquakes, perhaps?) at Alert, NWT. This spot is so far north it might as well be in orbit. But we don't ask questions. We're just supposed to supply answers.

But so much for the off-beat forms of architecture we are required to tackle. On to a look at the more down-to-earth structures.

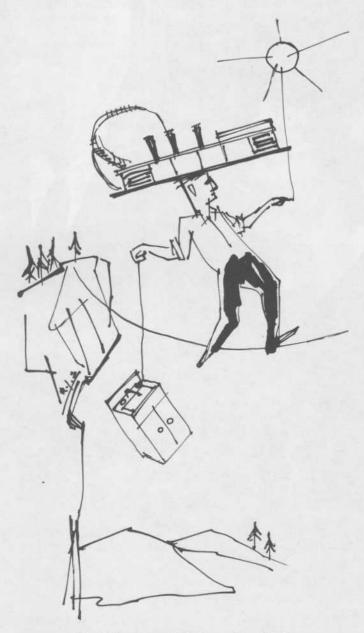
Essential airport buildings include terminals, heating plants, powerhouses, maintenance garages, engineering field offices, incinerators, firehalls, hangars and buildings for stores and air cargo.

Apartments, duplexes and bungalows are also designed for all branches of D.O.T. and for other departments and agencies as well. The variants in household composition and the remote sites selected for residential areas are two major problems that the architects strive to solve. They try to eliminate monotonous, dull and rubber-stamped similarity of design.

Modern, well-designed accommodation for all employees, is the goal of the department.

And where does all this leave the architect?

In the central position he has always occupied as the mediator between material conditions, mechanical necessities and human purposes.



And where does all this leave the architect?



A Holiday To End All Holidays!

by Yvonne McWilliam

Although they are members of the same family, Happy and Jeff have never met.

They are two Labradors and, since they live nearly 2,300 miles apart, they settled for second best.

Their masters met and exchanged Labrador lore.

Jeff is a 9½-year-old black one and is owned by a sister and brother, 12 and 11-years-old, who romp with him on Merry Island, B.C. where their father, George Potts, keeps a lighthouse, which Mrs. Potts uses to advantage to "spy" on their antics.

Happy, on the other hand, is just a baby compared to Jeff, and his owners work in the shadow of the Peace Tower, live at 24 Sussex Drive, and are Mr. and Mrs. John Diefenbaker.

The meeting of the "masters" came about because the Potts family—Mum, Dad, Joanna and Marcus—decided to take an eastern vacation from their D.O.T.—operated lighthouse in the Strait of Georgia.

Joanna and Marcus had barely been off the island or the nearby coastal shore before, let alone visited the East, and they conjured up all sorts of dreams about Toronto and Casa Loma, Montreal and the Forum (especially Marcus) and Ottawa and the Parliament Buildings.

In Ottawa their dreams came more than true.

A busy Prime Minister took time out to see them in his Centre Block office, and topped it off with an unsolicited invitation to "see my home" at 24 Sussex Drive with Mrs. Diefenbaker as hostess.

What followed was a two-hour visit with Mrs. Diefenbaker, a chance to see mementos given the Diefenbakers on their round-the-world trip in 1958, a four o'clock tea, and a sampling of sugar cookies right out of the oven.

Like all children Joanna and Marcus had longed for their March vacation. It seems even getting your three "R's" by correspondence means regular school days—and, of course, deserved holidays.

Plans were made well in advance. The family would drive leisurely through the northwestern U.S., then cross into Ontario, spend a week in Ottawa, and make a one-day visit to Montreal to let Marcus see the Canadiens tangle with the New York Rangers. On the way back to Merry Island they would go through the Canadian West.

And all along the way the children would see where history was made, and national pride was born.

For 10 years the Potts have had Merry Island to themselves—almost. Except for a couple of summer months when two Vancouver families move into summer homes at the opposite end of the island, Joanna and Marcus are the only children there. They have a "backyard" of one-and-a-half square miles.

Unlike the majority of their mainland cousins, they have time left over after school work and T.V. (they get about a dozen American and Canadian channels because of little interference) to collect stamps, coins, devour Collier's encyclopedia and wade through stacks of books..

It doesn't sound dull, and it isn't, says Joanna most emphatically. "As it is, we don't have time to do everything we'd like to.

"Our stamp collection always needs fixing, so usually the whole family goes at it on rainy days or winter nights," she says. Fine nights are spent star-gazing—literally—since all four Potts profess an amateur interest in astronomy. Of course, Dad picks up an inverse fringe benefit because it gives an indication of the weather—important to a lightkeeper.

Agreeable weather finds the children pressuring Dad to go to the mainland for

mail and supplies. The closest hint of civilization is at romantically-named Half Moon Bay, barely 10 minutes away with their fast little outboard "Maria".

In summer the weather and their persuasive powers combine to make Dad untie the boat about once a week. In winter the story is different. Two months could go by with no trip to the mainland.

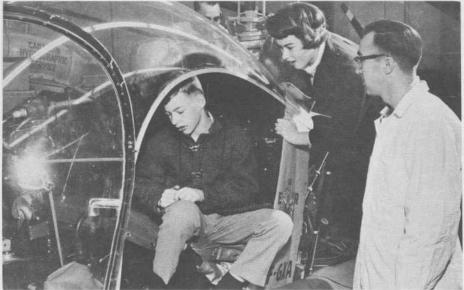
Another reason for going to Half Moon Bay is that the Potts keep their car there and sometimes they take a spin around the neighbouring countryside.

The children have always been keen on Canadian geography and history, so on this (continued on next page)



Marcus takes a close-up look at this Gatling gun on display in the Canadian War Museum. A collection of the history of all the wars that Canada has been involved in, the museum holds much interest for young boys.





The D.O.T. hangar at Ottawa Airport was of particular interest to the Potts youngsters. They are both well-versed on the different types of aircraft and make a game of guessing where the planes that fly over Merry Island took off from and where they are headed. With flight engineer Cecil Dick as guide they look over—inside and out—a departmental Piper Axtec and a DC-3 and then watch helicopter engineers Hugh MacIntyre (left) and John Phillips at work on a Bell helicopter.

Stewart MacDonald, assistant curator of ornithology at the National Museum, points out the distinctive characteristics of a blue goose (also known as a snow goose), which breeds in the Arctic and winters in Eastern Texas. At the right is a willow ptarmigan, another Arctic dweller.



holiday of all holidays Ottawa, as the capital city, intrigued them most. There was so much they wanted to see, and with only a week to see it News on the DOT offered its version of an Ottawa Cook's tour.

The Mint was a must. Both numismatists, Joanna and Marcus relentlessly pursue their hobby. In fact, every coin which passes through their hands is carefully scrutinized lest it be a 1936 copper with a dot or a 1921 five cent piece—both collectors' items.

A backdrop of reality was lent to their reading by visits to the War Museum and the Archives, while the National Museum (for a brief period Canada's Parliament) was a treasure trove of Canadiana, dinosaurs, and wildlife.

About ten blocks away lay the Parliament Buildings, downtown Ottawa and the Peace Tower, from the top of which the children were soon squinting into a swirling blizzard of wet snowflakes following the faint outlines of the D.O.T.—maintained Rideau Canal and trying to wrestle from the stubborn elements a lasting impression of the Gatineau grandeur tucked in behind the city of Hull.

Back in the elevator they were a little less talkative as it stopped at the third floor of the Parliament Buildings and they started towards the office of Prime Minister Diefenbaker.

When they met him they were understandably a little in awe of this man whom they had seen on television and read and heard so much about. However, he soon dispelled the awe as he chatted easily with them and, even when he asked them how fishing was on the island and they couldn't come up with an answer, Joanna and Marcus were not nonplused. They explained they didn't share the Prime Minister's love for angling.

Instead they offered their own wildlife interests—snakes and birds because there's nothing else on the island. Then followed the saga of Sue and Betty, two vain garter snakes, which, after hours of training, used to come out of the rocks at a whistle.

All too soon, however, the Prime Minister indicated to the two snake charmers that he would have to go back to work as the Commons was due to resume in about 15 minutes.

He suggested perhaps Mrs. Diefenbaker could fill in for him at his home, and they would see Happy?

The children happily agreed.

At 24 Sussex Drive they were graciously greeted by Mrs. Diefenbaker who, noticing their interest in the many objets d'art



displayed in the large salon, undertook to explain the origin and significance of each -the hebrew prayer book; the Petain vase of Baccarat crystal, presented to her at the RCAF base at Gros Tenquin, France; the silver tray presented to Mr. Diefenbaker by his ministers on his fourth anniversary in office; the miniature ivory screen from the Taj Mahal; the scroll of welcome, written in an Indian dialect, which they received in New Delhi; and scores of other items. As well, Mrs. Diefenbaker showed them framed pictures of royalty and leading statesmen and accompanied each with interesting anecdotes. Joanna and Marcus will remember these stories for a long time, particularly when they read or hear about these people in the future.

From the main drawing room overlooking the Gatineau Hills, Mrs. Diefenbaker led the children on a tour of the house—through the den where they felt the softness of rugs from Pakistan and saw the white telephone with its royal crest in gold which the Prime Minister used when he spoke to Her Majesty Queen Elizabeth at the official opening of the Cantat cable (News on the D.O.T., March/April) in December. The phone is now a direct line from Sussex Drive to the Privy Council.

From there they went upstairs to the sitting room and took a quick peek at the bedrooms. Then down—by elevator—to the games room in the basement.

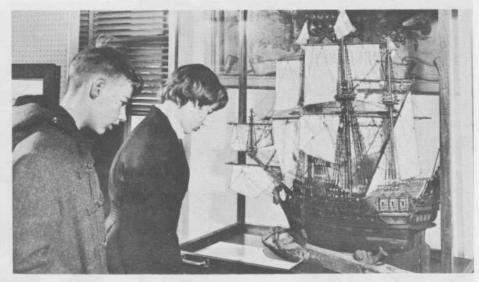
This perhaps, was the most interesting room in the house—at least for these young visitors. It was here they saw curios and souvenirs of important occasions—including a sample of the first oil found in Canada, a receptacle used to pan gold in Alaska, a silver cigar lighter mounted on a kangaroo's foot from Australia, a miniature totem pole and a walking stick carved with scout symbols which was presented to the Prime Minister at a jamboree.

To Joanna's delight there were dolls dressed in native costumes and a collection of china horses (her one passion in life is horses. In the National Museum she whispered that she would rather be photographed alongside the bones of a prehistoric horse than those of friend dinosaur).

A quick glance at our watch showed it to be 4.30 p.m. and time to end this unforgettable afternoon. Saying goodbye to the children at the front door, Mrs. Diefenbaker said she would like to receive a letter from them sometime telling all about what was going on at Merry Island.

"How should we address it, Mrs. Diefenbaker?" asked Joanna.

The answer—"Mrs. Diefenbaker, Ottawa, will find me."



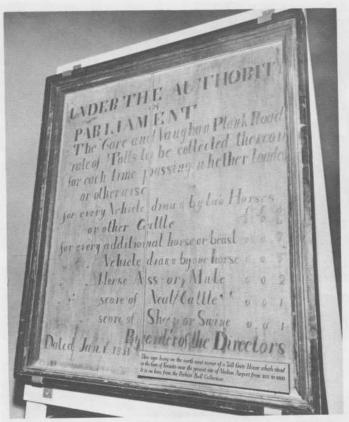


The Archives lent reality to their reading. They were fascinated by the historical description of a model of the Saint-Malo—the ship that brought Jacques Cartier to Canada more than four centuries ago—and to learn that it was Cartier who gave Canada its name when he mistook the Indian word "Kannata", meaning collection of huts, for the name of the country.

Marcus spotted Queen Victoria's likeness in a case of medals dating back several centuries and asked "Jo" if Victoria was the longest reigning monarch in British history.

"Happy", the Diefenbaker's golden Labrador, is just that as he laps up all the attention lavished on him. Much of the conversation between the two sets of owners—the Potts children and Mrs. Diefenbaker—was devoted to the growth and care of Labradors.





This old highway sign, currently on display at Ottawa International Airport, once hung on the corner of a toll-gate house in the Gore of Toronto near the present site of Toronto International Airport (Malton). It is on loan to the department from a private collection.



Mr. Edward C. Wood (left), President of the Imperial Tobacco Company of Canada Limited, as Canadian Director of the National Fire Protection Association presents the Fire Prevention Contest certificate award to Mr. Quinto Martini, M.P., Parliamentary Assistant to the Minister of Transport. The award was accepted on behalf of the airports at Whitehorse, Edmonton, Ottawa and Moncton, which won awards in the government division of the 1961 National Fire Protection Association's annual fire prevention contest.





Like little boys with model trains, an even half dozen Cana-dian Coast Guard captains inspect a model of a triple screw icebreaker. Since the department plans to add another such vessel to the fleet in a few years, several models are under consideration.

consideration.

The captains were among 25 who took part in a week-long course in Ottawa during March.

Left to right: J. L. Cuthbert (John A. Macdonald); M. Gagne (N.B. McLean); N. V. Clark, (Labrador); P. M. Fournier (Montcalm); G. S. Burdock (Sir Humphrey Gilbert); and J. H. Linggard (Standard) Linggard (Stonetown).



Two Anticosti Island lightkeepers take time off for a short trip aboard the CCGS d'Iberville while she carries out ice-breaking operations in the Gulf of St. Lawrence. (In the background the CCGS Sir William Alexander plows her way through ice.)

Left to right: Lightkeeper Bertrand Carre, Table Head, Mrs. St. Pierre and Lightkeeper Roger St. Pierre, Heath Point.

These beaming faces belong to two D.O.T.'ers who "came out on top" in the RA drama festival held in Ottawa during April.

Beverley Elliott walked away with the best supporting actress award for her role in the D.O.T. entry "Whatever the Guise", while Terrance Cosgrove, as the play's director, received the George T. Jackson trophy for the best presentation. (See story page 15.)



PLANES AFLYIN'

Canada has approximately 27,000 miles of designated airways, air routes and control channels.

Canada's busiest airport in 1961 was Toronto Island with 212,735 take-offs, landings and "simulated approaches" (instrument practice runs without touching ground).

Ottawa came second with 189,095 movements.

The busiest hour of the entire year was experienced by the airport at Cartierville, on Montreal's western outskirts. On October 22 its air traffic controllers handled 193 movements between 3 and 4 p.m., or better than one every 19 seconds!

Not counting local traffic (traffic remaining under tower control), Canada's busiest airport was Toronto International (Malton) with 90,907 take-offs and landings, while Montreal International (Dorval) was second with 84,582. These two airports clocked the greatest number of flights by

scheduled carriers with 61,934 and 59,650 respectively.

The increasing number of aircraft and flights and the widening speed gap between jets and propeller-driven planes have made traffic control in the air a vital aspect of aviation today.

Of all the sights at any large airport, the most familiar is the glass control tower or "cab". It houses the controllers who regulate air traffic in the immediate vicinity of the airport and aircraft and vehicles on the runways and taxi-strips.

In 1946, immediately after the Second War, the department operated control towers at 14 airports across Canada. Today that number has risen to 31.

Not seen by the public are the men who, by means of radar, guide aircraft from as far away as 150 miles to a safe landing. There are 15 such terminal control units in operation in Canada today.

Also "behind the scenes" are the men in area control centres who give a helping hand to pilots in much larger areas than the terminal control centres.

In 1946 there were six area control centres; today there are eight.

D.O.T. directs all air traffic in Canadian controlled air space, plus more than a million square miles of air space over international waters in the Atlantic and Pacific.

The air traffic controllers make use of

an imposing array of electronic devices: radio to establish airground contact, tape recorders to monitor every word spoken between controllers and pilots, airport and airways surveillance radar (AASR) and precision approach radar (P.A.R.).

The latter, particularly valuable in poor visibility weather, enables the air traffic controller to guide and "talk" an aircraft down to the runway.

P.A.R. systems have been installed at Gander and Toronto (Malton) International Airports with additional systems scheduled for Montreal, Vancouver, Winnipeg, Edmonton, Calgary and Halifax.

A separate structure for air traffic control has been planned for Toronto International Airport (Malton).

Rather than surmounting the air terminal building, the control tower will be located in the centre of the airport. There, away from surrounding airport noise, the control tower cab will rest 100 feet high on three columns serving as elevator, stairway and duct-and-cable shafts.

Air traffic control (apart from visual control of the glass tower cab), telecommunications and supporting services will each occupy a separate wing, and each wing will be designed for individual expansion as required.

This is a model of the new air traffic control building for Toronto International Airport (Malton). The three-legged tower will be solitary structure in centre of runway system, away from other airport buildings.



DOT's On The Map

Scattered from coast to coast across Canada, D.O.T. establishments report interesting events.

MONTREAL—Montreal International Airport (Dorval) boasts the most advanced weather radar in the world—a fully automatic system that gives a complete picture of conditions within 140 miles of Montreal.

The system is the first to provide a crosssection look at weather at constant altitude. It automatically photographs, develops and displays a new weather picture every three and a half minutes. Closed-circuit television carries the picture to air traffic controllers and pilots in another building. By the Spring of '63, a facsimile network will be able to transmit copies of the radar picture to other Montreal airfields, McGill University weather scientists, city snow removal officials and U.S. air bases in upper New York state.

The Montreal system, perfected by members of McGill University's famed "stormy weather group", requires only the part time services of a single meteorological technician.

WINNIPEG—A January weather forecast synopsis (in its entirety): "The weather has been cold. It is cold and will remain cold."

YARMOUTH—The Yarmouth Light, a weekly newspaper, printed the following tribute to R. A. (Rube) Hornstein, chief weather forecaster at Halifax.

The Wind blew down across the bay, Blew Hornstein's chalk-marks all away, But we have this to say about him, We could never wash our clothes without him.

By him we plan our work along, And time has proved he's never wrong. Whatever weather he predicts, That's the kind that comes, and sticks. One time his prophecy was snow, Said drifts would form and winds would blow.

We did not take it in that night, But morning proved that he was right. The banks were piled outside our door, We could open an inch, and nothing more,

more,
That day we did not get about,
Till neighbors came and dug us out.
The rains may splash,
Or sun may shine,
Or cold winds whine,
Or our television blow a tube.
But you never, never fool old Rube.

TORONTO—H. H. Bindon, chief of the instrument division, meteorological branch, represented Canada at the third session of the Commission for Instruments and Methods of Observation. A technical commission of the World Meteorological Organization, it was held in New Delhi, India, from January 29 to February 15. Experts from 31 countries attended.

The commission is responsible for standardizing methods of observation and types of instruments used. In taking meteorological observations it is essential that instruments be used in such a way that results may be compared regardless of where in the world they originate.

Mr. Bindon felt that the formation of a working group to consider required accuracy of measurement was of particular interest. He said that the lack of specifications for the accuracy of meteorological instruments has long been a matter of concern to instrument designers and users and this was the first time the problem was tackled on an international basis.

OTTAWA—Last year over 3,500 pocket books were collected and distributed to 45 isolated stations and 25 ships as part of the recreational equipment program. Most of these books were donated by employees at headquarters and in the field.

This success prompted training and welfare people, who administer the program, to ask for more donations this year and again D.O.T. people came through. In addition, private citizens and organizations showed interest. The Ottawa Branch of the Red Cross donated 1,000 records, which came their way from a radio station. One woman who phoned to say she had an assortment of books she would like to give, explained her husband is a patient in a hospital for incurables so she had first-hand knowledge of what isolation means.

TORONTO—Dr. P.D. McTaggart-Cowan, director of the meteorological branch, has announced that 20 co-operative weather observers across Canada have received awards for excellent reporting over a period of at least five years. The 1961 awards—the new edition of the Canadian Oxford Atlas of the World—are the eighth in a series of such awards.

These 19 men and one woman are part of a corps of nearly 1,550 voluntary observers who take time each morning and evening to observe the weather and record the temperature and precipitation. Once a month they mail reports to the department to be used in the compilation of weather statistics in various publications.

Dr. McTaggart-Cowan pointed out that these people make a very worthwhile contribution to the general knowledge of the Canadian climate. Some are keenly interested in weather observing as a hobby, others make use of the observations in their business activities, and some take the observations as a public service.

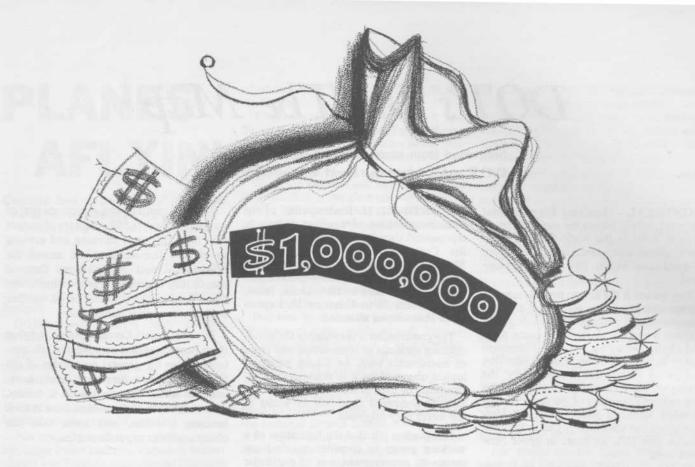
OTTAWA—It was more than beginner's luck which accounted for the D.O.T. entry—"Whatever the Guise"—taking top honors in the recent RA drama festival in Ottawa. It was a combination of hard work and good acting and directing.

Taking part in the competition on March 26-27 were entries from five government departments—National Defence, Trade and Commerce, Agriculture, Public Works and Transport.

This was the first time that Transport employees had participated in the annual festival and a very profitable "first" it proved to be. In addition to winning the "best presentation" award, Beverley Elliott, of air services construction branch, walked off with the "best supporting actress" award.

Youthful Terrance Cosgrove, a newcomer to the construction branch, directed the play and also played one of the lead roles. Others in the cast were Opal Mayer and Audrey Austin, also of construction branch; Marian Ramsden, telecommunications; and Robert Campbell, air services co-ordination, planning and programming.

As a result of this win, these talented D.O.T.'ers are scheduled to compete in the Eastern Ontario Drama League's annual one-act play competition at Deep, River. (See picture on page 13.)



THE BIG PAY-OFF

In 1961 the department's suggestion award program paid out \$1,420.00 in cash awards and \$808.95 worth of awards-in-kind to D.O.T. idea-men and women.

This grand total of \$2,228.95 can be translated into an estimated \$23,007.14 saved for the department, plus, of course, such intangible benefits as convenience and ease of operation.

A score of awards made recently include the following ones to:

—PATRICK J. FITZPATRICK, a radio operator at Burrin, Nfld. He received \$30 for submitting a revised method of correcting errors in typed messages on duplex calls recorded in the radio log. As well, he won a second award—a leather secretary—for a suggestion concerning the broadcasting of Notices to Mariners by Burrin Marine Radio.

—NORMAN DEMEZA, regional superintendent of air traffic control, Montreal, for recommending that the title "Agent" at Frobisher Bay and Goose Bay be changed to "General Manager" to reflect more adequately the responsibilities of these positions. Mr. Demeza chose a power driver as his award. —JOHN O. MURPHY, air traffic controller at Kenora, Ontario. He thought that a mapping arrangement should be designed to correlate information from surveillance radar to give accurate geographical positions, coincident with the giving of vectors, to lost aircraft.

A standard plotting board for use at radar units was developed along the suggested lines and Mr. Murphy received a \$30 award.

—Engineer ARTHUR PUBLICOVER of Toronto Region air services for suggesting that the airport electrical condition report be revised to include a resistance to ground measurement report on buried cables feeding airport lighting. The revised form is now in use and since it gives an indication of impending failure, Mr. Publicover was awarded \$40.

—L. A. TRECARTEN, senior met officer at Summerside, P.E.I., a \$30 award for suggesting Weatherfax recorders at RCAF stations St. Margarets, N.B. and Beaverbrook, N.S. be controlled by twin clock equipment. The need for continuous operation of this equipment has thus been eliminated.

—Typist MARGARET TAYLOR, air services, Toronto. She knew from experience that the daily flight report had too much space for "remarks" and not enough for "to" and "from". Her recom-

YOU DON'T NEED POSTAGE WHEN YOU SEND A SUGGESTION TO: THE

mendation that the form be amended was adopted and she received a \$30 award.

—C. J. McEVOY, principal clerk, administration, Ottawa, who felt that something should be done to eliminate the draft that occured in winter months when loading and unloading took place at the freight entrance of the Hunter Building. Automatic door closers were installed and Mr. McEvoy was presented with an award-in-kind, type "C".

—Radio operator PATRICK ROCHE, Burrin, Nfld., for suggesting that Burrin marine radio weather broadcast times be changed to be of more value to marine interests. After investigation this was done and Mr. Roche was awarded a radar light.

—GORDON I. WILSON for modification to Cossor dual channel VHF transmitters to eliminate possible short circuiting. Mr. Wilson, a communications technician at Edmonton, received \$40 for drawing attention to this possible source of danger to personnel.

—a Peterborough, Ontario electrician, GEORGE H. CUNNINGHAM, for his idea that a cooling device (fans) be installed on the main hoist motors at Swift Rapids and Big Chute marine railway. With the adoption of this suggestion the "burning out" of motors has been eliminated and a substantial amount of money saved. Mr. Cunningham is richer by \$90—less income tax, of course.

—GEORGE L. CONRAD, a radio technician at Moncton aeradio station two awards-in-kind—an oil painting and a Sony transistor radio—for the adoption of his suggestions.

Knowing of a man who sustained serious injuries while charging a car battery, Mr. Conrad suggested that operating manuals contain information of safety procedures to follow when checking or charging lead acid batteries—well-ventilated rooms, explosion-proof switches, lights and an exhaust fan are necessary.

His other suggestion related to 6155 vacuum tubes as a replacement for 4-125/4021 tubes in VOR and RCA.

—G. H. FETTERLEY, a radio operator at Victoria, for suggesting a change in format of heading for marine weather broadasts issued by Vancouver DPWO and DAFO to eliminate an anomaly (a forecast being broadcast before it is issued). He chose the camp stove as his award.

—met technician, SAMUEL ANDREW McGOWAN, Toronto, who suggested that to improve visibility of antenna masts or towers at marine radio beacons, they be painted with a "day-glo" type of paint. Since a marked improvement was noted and a better service provided, Mr. McGowan's suggestion was adopted. He received a \$30 award.

—PATRICK GRAHAM, a principal clerk at headquarters for recommending that all departmental clothing—parkas, flying boots, sleeping bags, etc.—be stenciled with the letters "D.O.T." He pointed out that the financial loss to the department due to theft or loss of this type of clothing is several hundred dollars a year. Mr. Graham received a cash award of \$40.

—W. J. FRYMIRE, a met technician at Prince George, B.C., for his suggestion that in the interests of safety the use of candles and paper lanterns with nighttime pilot balloon observations be discontinued. Instructions have been issued to use electrical lighting units and parachutes (when available) in their place. Mr. Frymire chose an oil painting as his award.

—W. G. E. WEBB, inspector of construction at Vancouver, who now owns a power driver for participating in the suggestion award plan.

He recommended that a leather thong or strap be attached to the handles of machetes so that they would not accidentally fly out of the operator's hand. Mr. Webb chose the power tool because, "it will be a great help in making parts for the two other ideas I have in mind".

—Lightkeeper R. W. ANSLEY of Long Point, Ontario, who offered a suggestion that has resulted in quick and easy removal of the controllers on beacon control panels of fog alarm and radio beacon tuning equipment.

He suggested that they be equipped with plug-like ends to fit into sockets on the control panel so that they could be easily removed for servicing. Also, this would permit either controller to be used with either transmitter.

His suggestion has been put into operation and he has received a \$40 award.

—JOHN R. HAMILTON, a port meteorological officer at Vancouver, B.C., who asked that consideration be given to constructing a marine barograph tray to eliminate the possibility of damage when changing charts. He included pictures of a prototype.

Although the original design was considered incomplete, several different models were made and tested aboard various vessels. For suggesting the idea which led to this study, Mr. Hamilton received a \$30 cash award.

—JOHN T. HART, radio operator, Sarnia marine radio, for discovering that metal keying discs on radio beacon equipment had several disadvantages. He recommended that fibre identification wheels be substituted. This has now been done and he was granted a \$50 award.

-A. P. HENNIGAN, a retired veteran, who works part time for the department as a climatological observer at Cowichan, B.C. As a D.O.T. employee he enjoys reading News on The DOT-so much so that an article on suggestion awards prompted him to send in one of his own concerning a modification to the sunshine recorder cards. Although recently-purchased recorders do incorporate Mr. Hennigan's recommendations, his letter drew attention to the fact that large numbers of older instruments are still in use in the field. These are gradually being modified and Mr. Hennigan is enjoying the profits of his idea—\$30.



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Top: With friends and fellow-workers looking on, Miss Armandine Lalande says "thank you" to J. A. G. Saint-Laurent, chief, purchases, contracts and stores, for the gift he has just presented her with.

Centre left: Henry Black looks back on more than a half a century devoted to ships and the sea as he accepts a framed photograph of the CCGS John A. Macdonald from A. R. Webster, chief, shipbuilding construction.

Centre right: Hugh Round occupied the seat of honor at the dinner at the Thunder Bay Flying Club. His daughter Stella (Mrs. Ron Leiterman) sat proudly beside him.

Bottom: J. L. Blondeau (left) regional director, air services, presents a radio receiver to William Thomas as a gift from his coworkers. F. P. Gingras, regional controller, telecommunications and electronics is seen at the right.

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WILLIAM JOHN THOMAS

W. J. Thomas, operations supervisor, telecommunications and electronics, Montreal, retired at the end of the year after more than 30 years of service.

A radio operator of the old school, "Tommy" (as he is known to his many friends) was born in Wales and attended the Radio College in London, England. In 1916 he joined the British Marconi Company and spent the next 12 years sailing the world as radio operator on several of the company's vessels.

He came to Canada in 1928 and joined the Canadian government radio marine service in the Maritimes. He was one of the first radio operators to go north to the Hudson Straits stations after they were established by the old department of marine in 1928. With the advent of airways radio in 1937 "Tommy" was transferred to Montreal where he served first as radio operator then as radio technician in charge of the radio range and communication transmitter building at Taschereau Blvd. and Beaconsfield. In 1946 he was promoted to supervisor, air ground operations, Montreal aeradio station and, in February 1947, to operations supervisor Montreal district radio aviation. He served in this capacity until his retirement.

At a dinner held in Mr. Thomas' honor, J. L. Blondeau, regional director, air services, presented him with a hi-fi radio receiver and a wallet. Unfortunately, Mrs. Thomas was unable to be present due to illness, but she was remembered with a bouquet of roses.

ARMANDINE LALANDE

On February 6th members of purchases, contracts and stores at headquarters gathered together to say farewell to Armandine Lalande on the eve of her retirement. She was presented with a purse and a cheque to mark the occasion.

Miss Lalande, fondly called "Shorty" by those she worked with, entered the government service as a clerk typist with the Department of Railways and Canals. In 1937, when that department become part of the newly-created Department of Transport, she became a clerk in the stores and purchasing section and remained in that division until her retirement.

HENRY BLACK

Henry Black, a construction supervisor with the shipbuilding branch, retired at the end of March.

A native of Liscard-Ceshire, England, Mr. Black's entire life has been devoted to the sea or ships. He graduated from Glasgow Technical College in 1914 with a first class marine engineering certificate. From 1916 to '19 he was an engineer in the the Royal Navy. He then joined the Canada Steamship Lines, first as an engineer at sea then as district superintendent engineer, repairs and maintenance. In 1940 he once again saw naval service and at the war's end was appointed manager of the Canadian Dredge and Dock repair depot at Kingston, Ontario.

Mr. Black's D.O.T. career began in April, 1956 and since that time he has supervised the construction of many of the CCGS vessels including, the Montcalm, the Montmorency, the Sir Humphrey Gilbert and the John A. Macdonald.

At the time of his retirement Mr. Black received best wishes and several gifts from his colleagues in the shipbuilding branch, including a framed color print of the CCGS John A. Macdonald.

HUGH S. ROUND

Hugh S. Round, who began his career in aviation as a World War I pilot, retired in March after 20 years as manager of the Lakehead Airport.

Born in Birmingham, England, Mr. Round joined the department in 1940 as airdrome keeper (20-year-old terminology) at Kenora, and two months later was transferred in the same capacity to Sioux Lookout. In April, 1942 he took over as manager of the Lakehead Airport, serving both Port Arthur and Fort William, and remained there until his retirement.

As guest-of-honor at a dinner held at the Thunder Bay Flying Club, Mr. Round pointed out that during his years at the Lakehead Airport there had been no major accidents. Some 280 airport personnel, departmental officials from Winnipeg and friends attended the dinner.

W. E. Fenn, regional director of air services, Winnipeg, presented the popular manager with an inscribed wrist watch, while Acting Mayor W. H. Spicer presented a scroll on behalf of the city of Fort William.



Our visiting student gets into the act by recording flight information on the board as he receives it over the phone from the air traffic control centre.

Below: Instructor of pilot balloon information, L. D. Lloyd, checks Mr. Guintu's calculations of asmath and elevation angles of a weather balloon.

The balloon, released a quarter of a mile away, is being followed by a fellow student who observes its movements and reports back over a walkietalkie system. With these visual observations Mr. Guintu is able to determine upper wind speed and direction.

Mr. Guintu Goes 70 School

Although it isn't really unusual for Ciraco Guintu to be going to school—back home in the Philippines he is a part-time professor at Feati University in Manila—the type of school he is now enrolled in is unusual.

Mr. Guintu arrived in Canada early in January to study meteorology, air traffic control and other aspects of Canadian civil aviation under Colombo Plan auspices. The first six months of his year-long stay are being spent at the department's air services school at Ottawa International Airport, where he studies along with many other students. Early in the summer he will exchange the school's classroom for the labs and offices of the met branch in Toronto.

This year-long course of study will be very valuable to Mr. Guintu in his position as supervisor of the Philippine aeronautical information services.

A graduate electrical engineer, Mr. Guintu first came to this country in 1959 as chief Philippine delegate to an ICAO conference at Montreal. He liked what little he saw of Canada on that trip, so when the opportunity to return came he experienced no hesitancy in making up his mind.

Mr. Guintu is briefed by R. Novakowski, chief air traffic control instructor, on the operation of Raytheon radar equipment. He explains that this is used by an approach controller in air traffic control.



