

NOVEMBER-DECEMBER 1967
NOVEMBRE-DÉCEMBRE 1967



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OUR COVER

While Transport Minister Paul T. Hellyer, left, and Denis McAuliffe, right, a 24-year-old student at the Air Services Training School in Ottawa, look as if they can hardly believe it, the inevitable happened recently when Jolly Old Saint Nick showed up on one of the school's incoming air traffic control units. Actually, our cover resulted from some deft camerawork by Ray Stone of the Minister's staff, the artistic flourish of D.O.T. staff artist Jack Nakamoto, and the co-operation of Mr. Hellyer, Denis, and the Air Services staff at Ottawa International Airport, all of whom join with us in wishing each of you a very merry Christmas and a happy and prosperous New Year.

FRONTISPICE

Le ministre des Transports, l'honorable Paul T. Hellyer, à gauche, et Denis McAuliffe, étudiant à l'École des Services de l'Air du ministère à l'aéroport international d'Ottawa, paraissent absolument bouleversés par ce qui vient de surgir sur l'écran de radar servant au contrôle de la circulation aérienne. C'est en effet le bon vieux Père Noël qui arrive avec ses rennes et son traîneau chargé de gâteries pour tous les goûts. La scène, évidemment truquée, est le résultat d'un montage réalisé par le photographe Ray Stone, attaché au bureau du ministre, avec l'aide de l'artiste et dessinateur du ministère, Jack Nakamoto. Les auteurs du montage photographique et ceux qui ont participé à sa mise en scène se joignent à nous pour souhaiter à tous et chacun un joyeux Noël et une bonne et heureuse année.



AN ENVIABLE RECORD

From coast to coast the personnel of D.O.T. can reflect on a dynamic year in all facets of communications. I am proud to be spending the Christmas of 1967 in such illustrious company.

As our Centennial year draws to a close, the men and women of the Department can proudly look back on the contributions that they have made in the development of a better country for all Canadians. We can also look ahead to the future knowing that we have the "know-how" to expand upon this enviable record.

To the men and women of the Department and their families, my warmest personal wishes for a Merry Christmas and a prosperous New Year.

UN TRAVAIL BIEN FAIT

Pour tous les employés du ministère des Transports qui œuvrent d'un océan à l'autre, l'année qui s'achève témoigne de nombreuses réalisations dans tous les secteurs des communications. Je suis fier de passer Noël 1967 en si illustre compagnie.

A la fin de l'année du Centenaire, les employés des deux sexes du ministère peuvent être fiers de leur apport en vue d'améliorer les conditions de vie des habitants du pays tout entier. Les perspectives d'avenir sont très prometteuses, car l'expérience nous prouve que nous avons toutes les possibilités d'ajouter à nos réalisations passées.

Aux employés du Ministère et à leurs familles, mes vœux les plus sincères à l'occasion de Noël et du Nouvel An.

Paul T. Hellyer

Minister

Ministre



A WORD OF THANKS

As part of the general trend in modern society towards shorter working hours and more time for other types of activity, the law now provides several special holidays for us, in addition to the regular period of annual leave. Two of these in particular mean a great deal to me.

July 1st is the symbol of our nationhood; and December 25th has become a western symbol for the finest in the human spirit in terms of selflessness. On this latter occasion my thoughts will be with all of you and I send you my thanks for a job well done in 1967.

UN SINCÈRE MERCI

Suivant le courant général de la société moderne qui tend vers des heures de travail abrégées afin de laisser plus de loisirs, la loi nous fait maintenant bénéficier de congés spéciaux en plus de la période régulière des vacances annuelles.

Parmi ces congés spéciaux, deux me sont particulièrement chers: le 1^{er} juillet, symbole de notre condition de nation, et le 25 décembre, devenu en Occident le symbole de ce que l'humanité a de plus grand, sa générosité. En cette dernière occasion, mes pensées seront avec vous et je vous remercie sincèrement pour le si beau travail accompli en 1967.

Deputy Minister

Sous-ministre



Hon. Paul T. Hellyer



Hon. J. W. Pickersgill

Canada's New Minister of Transport

Canada's 10th Minister of Transport, the Hon. Paul Theodore Hellyer, was officially sworn in last Sept. 19 in a brief ceremony in Ottawa.

Mr. Hellyer, formerly the minister for national defence, was appointed to head the Department of Transport following the resignation of the Hon. J. W. Pickersgill, who is now president of the Canadian Transport Commission.

In a short space of time—he was a Member of Parliament at the age of 25, a Parliamentary Assistant to a Minister at 32, and a Minister of the Federal Cabinet at 33—Mr. Hellyer has had a remarkable career.

When he was named Associate Minister of National Defence in 1957, he was at 33 the youngest Cabinet Minister since the turn of the century.

Aside from his political career which was launched when he was fresh out of university, Mr. Hellyer has been active in business.

In 1962, when he resigned to devote his full time to public life, he was president of Curran Hall Limited of Toronto, one of Canada's leading home-building companies.

Mr. Hellyer, who is six feet, three and one-half inches tall, was born on Aug. 6, 1923, on a farm near Waterford, Ont., the son of A. S. Hellyer and Lulla M. Anderson.

After attending high school at Waterford, he graduated in aeronautical engineering from the Curtiss-Wright Technical Institute of Aeronautics at Glendale, California, in 1941.

Subsequently, he was employed by Fleet Aircraft Limited at Fort Erie, Ont., starting as junior draughtsman and working up to group leader in engineering on the Cornell aircraft elementary trainer which was used by the Royal Canadian Air Force during the later stages of the Second World War.

Having already obtained his pilot's licence in California, Paul Hellyer joined the RCAF but before he earned his wings, the RCAF no longer required pilots so he served the balance of the war with the Royal Canadian Artillery.

After demobilization, Mr. Hellyer went into business in Toronto and at the same time worked his way through university, earning his B.A. degree at the University of Toronto.

In 1949, at the age of 25, he decided to run for Parliament

and he became the youngest member of the House of Commons, representing a riding that had not voted Liberal since Confederation.

In 1953, he was re-elected and in Feb. 1956, he was appointed Parliamentary Assistant to the Hon. Ralph Campney, Minister of National Defence.

Fourteen months later, just weeks before the resignation of the government, he was sworn to the Privy Council as Associate Minister of National Defence.

Defeated in the general election of June 1957 and March 1958, Mr. Hellyer was re-elected to the House of Commons as the Member of Parliament for Toronto-Trinity in a by-election held in December 1958.

As a member of the Liberal Opposition, he became the

party's defence critic and acted as chairman of the 1961 Liberal Rally in Ottawa. He also served as a Parliamentary representative to the North Atlantic Treaty Organization under both Liberal and Conservative administrations.

Re-elected in the general election of April 8, 1963, Mr. Hellyer was named Minister of National Defence when the Cabinet was formed.

Married to the former Ellen Jean Ralph, Mr. Hellyer has three children, Mary Elizabeth, Peter Lawrence, and David Ralph.

An active member of the United Church of Canada, Mr. Hellyer has devoted most of his spare time for the past 15 years to his church, in spite of the heavy demands of public life.

Nouveau ministre des Transports

L'honorable Paul Théodore Hellyer, dixième ministre des Transports du Canada, a été assermenté officiellement le 19 septembre dernier, au cours d'une brève cérémonie qui s'est déroulée à Ottawa.

M. Hellyer, qui était auparavant ministre de la Défense nationale, a été nommé à la direction du ministère des Transports à la suite de la démission de l'hon. J. W. Pickersgill, qui est maintenant président de la Commission canadienne des transports.

Député à l'âge de 25 ans, adjoint parlementaire à 32 ans et ministre du Cabinet fédéral un an plus tard, M. Hellyer a connu, en peu de temps, une carrière remarquable.

En 1957, lorsqu'il a été nommé ministre associé de la Défense nationale à l'âge de 33 ans, il était le plus jeune ministre du Cabinet depuis le début du siècle.

Outre la carrière politique qu'il a entreprise à sa sortie de l'université, M. Hellyer s'est occupé activement d'affaires.

En 1962, lorsqu'il s'est démis de ses fonctions pour se consacrer entièrement à la vie publique, il était président de la Curran Hall Limited of Toronto, l'une des plus importantes compagnies de construction domiciliaire du Canada.

Fils de A. S. Hellyer et Lulla M. Anderson, M. Hellyer, qui mesure six pieds trois pouces et demi, est né le 6 août 1923, dans une ferme située près de Waterford (Ontario).

Après avoir fait ses études secondaires à Waterford, il obtient, en 1941, un diplôme en génie aéronautique du Curtiss Wright Technical Institute of Aeronautics, à Glendale (Californie).

Il travailla ensuite à l'emploi de la Fleet Aircraft Limited, à Fort Erie (Ontario), où il remplit d'abord les fonctions de dessinateur subalterne et devient par la suite chef de groupe des ingénieurs affectés à la mise au point de l'avion d'entraînement élémentaire *Cornell*, que l'Aviation royale du Canada a utilisé vers la fin de la seconde guerre mondiale.

Ayant déjà obtenu son brevet de pilote en Californie, Paul Hellyer s'engage dans l'ARC, mais avant qu'il puisse recevoir ses ailes, l'Aviation n'a plus besoin de pilotes. Il sert

donc dans l'Artillerie royale canadienne jusqu'à la fin de la guerre.

Après la démobilisation, M. Hellyer entre dans les affaires, à Toronto, tout en poursuivant ses études universitaires, et il obtient son baccalauréat ès arts de l'Université de Toronto.

En 1949, à l'âge de 25 ans, il décide de se présenter aux élections fédérales et il devient le plus jeune député de la Chambre des communes, représentant une circonscription qui n'avait pas élu de candidat libéral depuis la Confédération.

Il est réélu en 1953 et, en février 1956, il est nommé adjoint parlementaire de l'honorable Ralph Campney, ministre de la Défense nationale.

Quatorze mois plus tard, quelques semaines à peine avant la démission du gouvernement, il prête le serment de membre du Conseil privé, à titre de ministre associé de la Défense nationale.

Défait aux élections générales de juin 1957 et de mars 1958, M. Hellyer est réélu à la Chambre des communes en tant que député de Toronto-Trinity, lors d'une élection complémentaire tenue en décembre 1958.

En qualité de membre de l'opposition libérale, il devient le porte-parole de son parti en matière de défense, et il exerce les fonctions de président à l'occasion du congrès du parti libéral tenu à Ottawa en 1961. Il est également représentant parlementaire auprès de l'Organisation du Traité de l'Atlantique Nord sous le gouvernement libéral aussi bien que conservateur.

Réélu aux élections générales du 8 avril 1963, M. Hellyer est nommé ministre de la Défense nationale lors de la formation du Cabinet.

Il a épousé Ellen Jean Ralph, de qui il a eu trois enfants: Mary Elizabeth, Peter Lawrence et David Ralph.

Membre actif de l'Église Unie du Canada, M. Hellyer consacre, depuis 15 ans, presque tous ses loisirs aux œuvres de son église, malgré les lourdes obligations que lui impose sa vie publique.

*Budget planning
has become a "family" exercise*

BATTERING THE BUDGET ABOUT

The Air Services board room at Ottawa resounded with earnest—and occasionally vehement—discussion as regional staffs met separately with headquarters personnel to plan activities for the next five years.

C. Mornington Brant, whose quiet voice and incisive analysis of basic issues guided each of the meetings, considers that the conferences and preparations for them have laid a firm basis for the development of sound programs of expenditure, both today and tomorrow.

"It's a somewhat new management concept in which every person involved, at every level of responsibility, has an opportunity and an obligation to express opinions and make recommendations," explained Mr. Brant, who retired this fall as Deputy Director Air Services.

"In line with the new pattern of wider delegation of authority, each Regional Director Air Services is responsible, with his staff, for developing a program of activities and capital expenditures."

Here's how it worked.

Late in 1966, each region was asked to update its program to cover the five years succeeding 1967-8, placing the main emphasis on the first of these years.

Regional plans were submitted early in 1967 and headquarters divisions were circulated for comments.

Then, each regional director arrived with his staff to do battle for his claims on the public purse.

The plan was to give all projects a rating of priority and submit a tentative budget to Treasury Board. Later, when the Board indicated the amount of money it was prepared to grant Air Services for its program, the proposed regional budgets would be subjected to another keen examination.

One of the problems at the regional meetings appeared to be that there could be no assurance that funds would be available to do everything planned.

Mr. Brant saw no problem.

"Our political masters decide on the relative priority of aviation programs as against other programs," he said. "Our responsibility as planning officers is to make recommendations, indicate our priorities and the likely consequences if our proposals are not carried out, and make it possible for our masters to determine the overall governmental priorities."

Most discussion was directed to plans for the following fiscal year (1968-9) and, with no certain knowledge of what funds would be approved, it was largely a matter of fixing priorities rather than accepting and rejecting proposals. Mr. Brant set out the following classifications:

- A. Essential work in which safety is involved;
- B. Essential work in which service is involved;
- C. Important work which could affect future programs but does not have an immediate serious effect;
- D. Work which could be deferred without immediate consequences.

Mr. Brant saw a number of advantages in this system of classification. With all projects fully planned for presentation, there is a good supply of relatively low priority projects which can be restored to the program if additional funds become available.

Another advantage is that, in subjecting projects throughout Canada to the same criteria, their importance can be assessed on a national, as well as regional, basis. Mr. Brant would prefer, instead of supplying equal portions of money to each region, to assess on a national basis some of the less essential projects, and to make budget allocations accordingly. Another argument against block allocations of funds, regardless of projects planned, is that some regions would be unable to maintain a balanced program in some years. In Vancouver region, for example, a large sum is being spent on the Vancouver International Air Terminal. If that sum were to come out of the region's regular budget without due consideration, there would be little left to carry out other responsibilities.

The meetings were lively and intense. Occasionally a member of headquarters staff would question the need for a specific project, or suggest that it be done under headquarters management. Then the regional director usually brought up his shock troops—members of his staff who were experts on the matters under discussion.

When the question of whether projects should be managed by headquarters or regional staff arose, Mr. Brant usually reminded the meeting that the Assistant Deputy Minister for Air, G. A. Scott, on whose behalf he was conducting the meetings, wanted headquarters to phase out of handling projects that could be managed in the regions. Most of these questions were concerned with engineering, in which headquarters personnel have high qualifications and much experience.

As the last debate wound to a close, Bob Campbell, chief of co-ordination and planning, and his staff calculated a total of \$59,000,000 requested by Air Services regions for capital expenditure. Requests by region varied from \$5,000,000 to \$18,500,000. (The total budget proposed by all of Air Services is in excess of \$80,000,000).

In the course of the meetings, programs had been hammered into sound proposals with firm arguments to back each one. Participants gained new insights into the policy and aims of the Department. In discussing problems at such close quarters, too, they came to a better understanding of the people with whom they usually must deal at a distance; an understanding that will make co-operation within our far-flung department much easier.

His Christmas is Helping Others

Like most people who are bustling about doing their last-minute Christmas shopping right now, a quiet but dedicated Winnipeg meteorologist is hard at work —although he's shopping for a somewhat larger "family".

He's Eric Dexter, a man who has devoted 10 days of his annual leave each year for the past eight years to organizing help in the form of food and gifts for needy families in the Manitoba capital.

For the past four years, Mr. Dexter has headed the Anglican Social Service program which comes under the Christmas Cheer Board, an agency of Winnipeg's United Way.

Ask Mr. Dexter about it and he'll tell you it's a job that's getting bigger all the time.

"Through congregations, individuals and organizations, we solicit donations of canned goods, toys and money," he said.

"A church hall is used to sort the goods and pack the hampers from lists of names supplied by the Christmas Cheer Board," he added. "We are not in any way limited to the denomination, although we do receive all the Anglican referrals."

In addition to the donated goods, Mr. Dexter is responsible for the purchase of needed groceries and toys as well as the turkeys, chickens and hams that go in every hamper.

Last Christmas when the project involved 35 congregations in Greater Winnipeg, Mr. Dexter had 30 women working as volunteer packers, six men and teenagers moving hampers and loading cars, and about 120 men and women delivering the bulging hampers of food and goodies to those who need them.

"When the smoke cleared away and we could take stock of what we had accomplished, it was found that we had packed and delivered 693 hampers, which brought assistance to 3,010 people including about 2,200 children and teenagers who also received gifts, and my budget for the job was \$5,200 over and above the donated goods and toys."

And why does he do it?

"The flood of letters of thanks that follow the Christmas season always seem to make it worthwhile and draw me back to it again the next year," replied Mr. Dexter.

**La joie des autres
fait son bonheur**



Comme il le fait assidûment depuis déjà huit ans, un météorologiste de Winnipeg a entrepris encore cette année sa campagne qui a pour but de semer un peu de bonheur dans les foyers nécessiteux de son milieu au temps des Fêtes.

En effet, M. Eric Dexter, depuis huit ans déjà, consacre dix jours de son congé annuel à aider les familles dans le besoin de la capitale du Manitoba en leur procurant des aliments et des cadeaux. Sa grande famille à lui, en cette période de l'année, c'est la classe pauvre de son milieu. C'est en atténuant la misère des autres au temps des Fêtes qu'il trouve son propre bonheur.

Au cours des quatre dernières années, M. Dexter a dirigé l'exécution du programme du Service social de l'église anglicane qui relève du Christmas Cheer Board, agence de la Fédération des œuvres de Winnipeg.

Interrogé, M. Dexter nous a précisé

que cette œuvre prenait des proportions de plus en plus considérables.

«Nous sollicitons des dons de conserves alimentaires, de jouets et d'argent par l'entremise de communautés paroissiales, de personnes, et d'associations», a-t-il déclaré.

«Le tri des marchandises et la préparation des paniers destinés aux personnes dont les noms figurent sur des listes qui nous sont fournies par le Christmas Cheer Board se font dans une salle paroissiale», de poursuivre M. Dexter. «Notre aide est accordée à toute personne, quelle que soit sa religion, bien que nous nous occupions de toutes celles qui appartiennent à la religion anglicane.»

En plus de s'occuper des dons de marchandises, M. Dexter voit également à l'achat des articles d'épicerie et des jouets ainsi que des dindons, poulets et jambons dont chaque panier est pourvu.

L'an dernier, à Noël, 35 communautés

paroissiales du Grand Winnipeg ont participé au projet. M. Dexter devait alors diriger 30 emballeuses bénévoles, 6 hommes et adolescents occupés au transport des paniers et au chargement des voitures et environ 120 hommes et femmes qui livraient aux nécessiteux les paniers remplis d'aliments et de sucreries.

«Lorsque la fumée s'est dissipée et que nous avons fait le bilan de notre œuvre, nous avons constaté que nous avons emballé et livré 693 paniers et aidé ainsi 3,010 personnes, dont 2,200 enfants et adolescents qui reçoivent en outre des cadeaux. Le budget de l'œuvre s'établissait à \$5,200, sans compter les dons de marchandises et de jouets.»

Qu'est-ce qui motive M. Dexter?

«Les nombreuses lettres de remerciements qui me parviennent après les Fêtes semblent toujours justifier la nécessité de l'œuvre et m'y ramènent l'année suivante», nous a-t-il répondu.

**'tempt us not,
dear winter,
duty calls us south...'**

by William Dunstan
Information Services Division

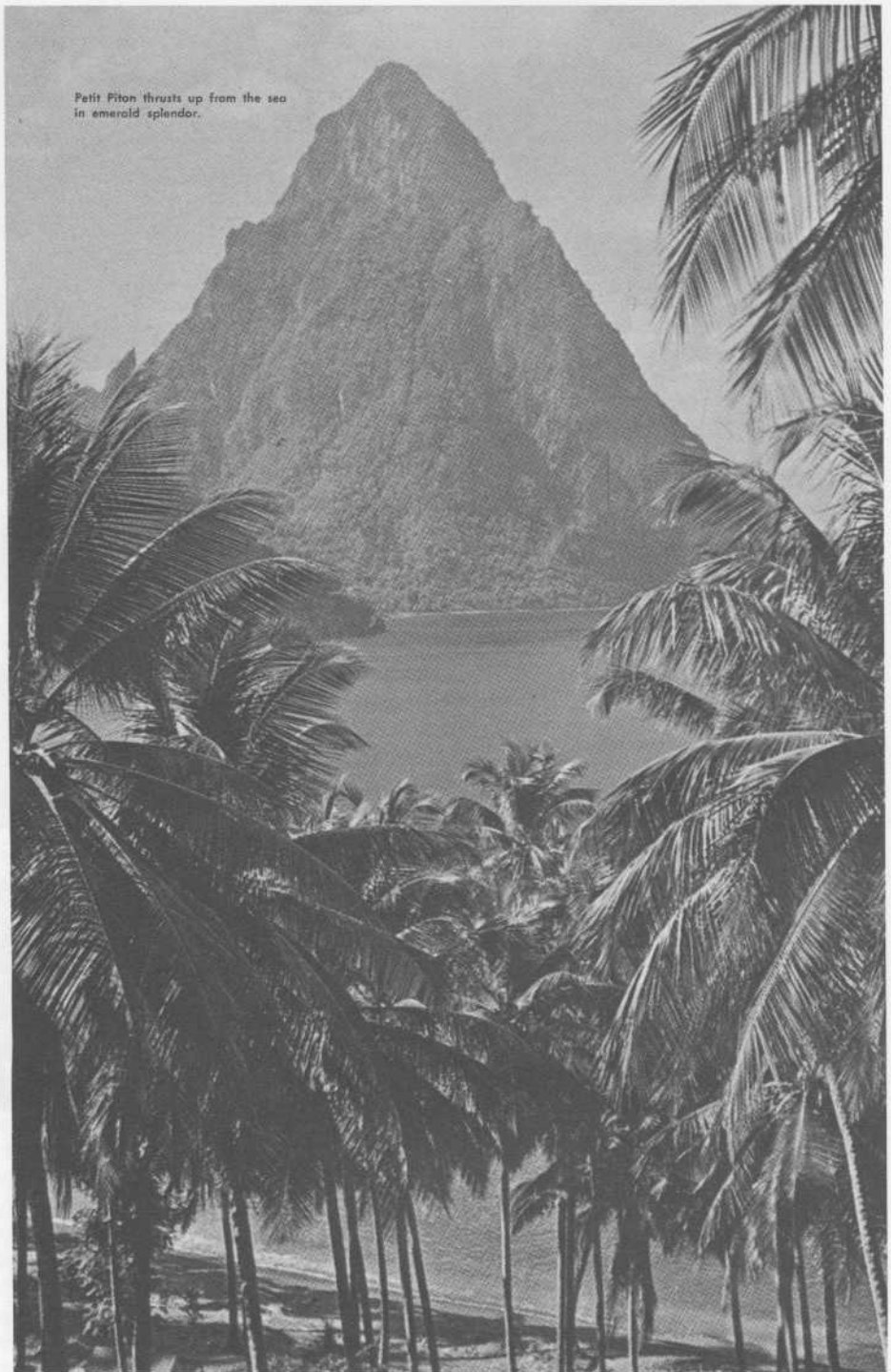
Last February, while the joys of winter still were available to sneezing Canadians, it was rumored that screams of protest were heard as three members of D.O.T. were pushed aboard a departmental aircraft bound for the West Indies.

Sentenced to a two-week ordeal in the Leeward and Windward Islands, a string of a dozen green, spice-scented ocean gems strung about the eastern edge of the warm blue Caribbean Sea were two members of the Construction Engineering and Architectural Branch—D. A. Lane, chief engineer, and Dr. G. Y. Sebastyan, chief of engineering design—and J. M. West of the flight standards and regulations division of the Civil Aviation Branch.

Their task was to prepare a study paper with recommendations for an airport system framework which would not only meet the short-term needs of the islands but also provide a sound basis on which long-term airport development concepts could be planned.

Undertaken for the external aid office the assignment was confirmation of the high place our air services experts have in international circles and, of course, an important contribution to Commonwealth relationships. (These islands, formerly British possessions, are entering independence within the Commonwealth.)

These tropical paradises, as the travel brochures call them, are part of the Lesser Antilles and include St. Lucia,



Petit Piton thrusts up from the sea in emerald splendor.

St. Vincent, Grenada, Dominica, Antigua, St. Christopher (St. Kitts), Montserrat, Nevis, Barbuda, Bequia, Carriacou, and Anguilla.

There are airfields on most of the islands, but some are located in difficult terrain and are unsuited to other than light aircraft.

At St. Vincent, for instance, the Department's Baron provided a few exciting moments crossing a mountain that stands permanently in the path of any aircraft that has to take off inland.

Having survived the trip, the group has produced a detailed and intensive study of physical and economic factors in which it is indicated that tourist traffic will continue to grow and make feasible the expansion of air services.

It is only a preliminary evaluation study which will have to be supported by extensive technical studies before implementation.

It is understood, however, that the group is willing to undertake any additional studies required—even in winter.

world weather watch

by J. R. H. Noble, Director,
Meteorological Branch, Department of Transport

Described as the most ambitious and challenging undertaking ever conceived by the World Meteorological Organization, World Weather Watch is a long-term experiment in international co-operation that gets underway in 1968. Here, condensed from an address delivered at the Canadian Meteorological Society's First Annual Congress in Ottawa recently, a Canadian authority discusses the concept.

World Weather Watch is the name given to the integrated world wide system for meteorological observation, weather services and research conceived and planned by W.M.O. The system will be made up of the present world system augmented by facilities for the acquisition of additional basic data, by improved telecommunications and data processing facilities and further supported by research and training.

The plan, which is scheduled for implementation during the period 1968-71, recognizes the probability of new advances in such areas as the use of satellites for both sensing and communications, of automatic stations and of constant level balloons.

It further recognizes the importance of developing physical-mathematical procedures to simulate the behavior of the atmosphere which are much more complex and realistic than are now available. Accordingly, the present plan envisages the incorporation of the products of these advances as they become operationally applicable.

Historically, World Weather Watch emerged as WMO's response to the resolution passed by the General Assembly of the United Nations on "International Co-operation in the Peaceful Uses of Outer Space".

Information required by nations includes both meteorological observations and processed data. For operational work, the information must be received in a timely and co-ordinated fashion while for research purposes the information must be readily accessible in convenient forms.

Essential Elements

It follows that the essential elements of World Weather Watch are:

- 1) Observational networks and other observational facilities, called the Global Observing System;
- 2) Meteorological centres and the arrangements for the processing of the observation and for the storage and retrieval of data, called the Global Data Processing System; and
- 3) Telecommunication facilities and arrangements necessary for the rapid exchange of the observations themselves and of the processed data, called the Global Telecommunications System.

A further very important purpose of World Weather Watch is to stimulate and facilitate the research work which is necessary to improve the understanding of the processes taking

place within the earth's atmosphere, which introduces a further element of WWW, namely:

- 4) The research program.

One of the most serious obstacles towards the achievement of all the above objectives is the lack of sufficient skilled meteorological personnel of all classes in many countries. The successful implementation and operation of World Weather Watch, therefore, depends on yet another element:

- 5) Education and training.

In broad terms, the initial phase of the WWW plan will seek to achieve by 1971:

- a) Substantial improvement in the Global Observing System to provide better and more complete data for meteorological analysis and forecasting;
- b) Implementation of the Global Data-Processing System;
- c) Improvement of the Global Telecommunication System.

Global Observing System

The present global observing system is principally deficient over most ocean areas, in the tropics and in remote land areas.

To remedy these deficiencies, extension of conventional observing networks and deployment of meteorological satellites and other new observing tools will be used to ensure a more homogeneous distribution of meteorological observations on a global basis.

The present North Atlantic and other ocean weather stations should be retained without reduction in number or program, regardless of any reduction in the direct utilization of the stations for aeronautical purposes, until such time as completely satisfactory and proven alternative observing systems are available which could maintain in full the necessary regular reliable data output. New stations should be established in critical locations where essential meteorological observations cannot be obtained by more economical means.

As a first step, between five and 10 additional fixed-ship ocean weather stations should be established, mainly in the Southern Hemisphere.

Substantially increased use should be made of mobile ships for obtaining surface and upper-air observations over ocean areas, especially in the Southern Hemisphere. By the end of 1971, there should be a total of at least 100 ships taking upper-air observations in addition to a normal surface observing program.

To meet the vital need for surface observations from ocean areas, the present selected ship program should be substantially increased and, if possible, doubled during the period 1968-71.

Commercial aircraft still constitute a valuable source of upper-air data, especially over the oceans and other sparsely inhabited areas and the selection and distribution of such reports should be developed as an integral part of the plan.

Meteorological satellites already provide, on an operational basis, valuable data on the extent and character of the global cloud cover. Much improved meteorological satellites will likely be in orbit during the period 1968-71. These satellites are expected to provide data on cloud distribution during both day and night and certain other global atmospheric parameters for operational purposes.

Global Data-Processing System

The Global Data-Processing System envisaged under WWW consists of a system of World, Regional and National Meteorological Centres. It is important to recognize that while WMC's and RMC's will operate in support of NMC's in no way will they control or dictate the manner in which NMC's go about fulfilling national needs.

In broad terms, the GDPS is aimed at securing maximum efficiency in the utilization of manpower and facilities. WMC's will concentrate on global type of products primarily describing large-scale synoptic phenomena whereas RMC's will concentrate on continental or sub-continental type products.

By making use of processed data so provided, many nations will find it possible to concentrate a greater part of their efforts on expanding the current weather services with emphasis on meso-scale analysis and forecasts. Each nation determines within relatively wide limits which products it will require from WMC's and RMC's.

WMO has recognized three WMC's—Washington, Moscow and Melbourne. The first two are already operational to a substantial degree while the third is still in the planning stage.

Global Telecommunications System (GTS)

The purpose of the improved Global Telecommunication System during the period 1968-71 will be to collect and distribute raw observational data to national, regional and world meteorological centres and subsequently to distribute the resulting processed information to other WMC's, RMC's, and NMC's.

The present communication system is inadequate to provide essential services to all countries. During the period 1968-71, countries should seek to install jointly a reliable global circuit which will interconnect all regions and have sufficient capacity to exchange the meteorological data and products required.

The Research Program

Scientific research will primarily be the responsibility of individual nations. The role of WMO will be that of assisting in the co-ordination of research activities.

As a concrete step toward making WMO's role effective, the organization's fifth congress reaffirmed the importance of close collaboration between WMO and the International Council of Scientific Unions and further approved a resolution covering a WMO/ICSU agreement for a jointly-sponsored Global Atmospheric Research Program.

Education and Training

Discussions at the fifth congress of WMO highlighted the vital importance of accelerating and expanding activities in the field of education and training.

It is absolutely essential to the success of WWW that these activities be given top priority particularly in the developing countries.

In support of these undertakings, the fifth congress approved an amount of \$500,000 in the regular WMO budget for the four-year period 1968-71 to be used for long-term fellowships.

In addition, developing countries were urged to take advantage of resources available through the United Nations

Development Program and where possible to secure support through bilateral arrangements with developed countries.

Canada's Position

Canada is on record as being in full support of the WWW plan. Our national plans include proposals for improving data-acquisition networks to a level which at worst even in isolated areas will meet the minimum specifications laid down for WWW and in most parts of our country will be substantially better than the minimum.

Canada endorses the concepts inherent in the integrated world-wide system of data-processing and will continue to participate in the further development.

I am sure those familiar with our national Weather-Central/Weather Office organization will recognize a striking similarity between our national organization and the WWW global concept of WMC's, RMC's and NMC's.

At this stage it is not possible to specifically identify our precise relationship to, and degree of participation in, the Global Data-Processing System. The matter is, however, being actively studied.

Canada proposes to improve the national meteorological data communications system in a manner which will be consistent with both our own needs and with the WWW plan. Approval in principle for a major improvement is already available and detailed plans are being developed.

It goes without saying that we in the national service view with enthusiasm the action taken by WMO in support of a global atmospheric research program. It is premature to attempt to specifically identify a role in the program. However, it is obvious that Canadian meteorologists will find a place at the appropriate time.

As mentioned earlier, WWW is to be implemented primarily through national programs executed by individual nations using their own resources. Developing countries will be assisted through UNDP to which Canada makes substantial contributions. Canada has provided and is ready to continue to provide assistance to developing countries under bilateral arrangements through the External Aid Office.

There are reservations about the "Voluntary Assistance Program" recently approved by the fifth congress but for the present at least, it will probably be our policy to adopt a "wait and see" approach.

Summary

In summary, taking a broad view, WWW means many things to many people.

To some, it is a means of highlighting an awareness of the benefits which may accrue to mankind through applications of meteorological services.

To others, it means a contribution to the science of meteorology through improved knowledge of how the atmosphere behaves.

To still others, it means more effective operations through better observational coverage, improved communications and more effective data processing.

Hopefully, WWW could narrow the gap between the level of operations of developed and developing services.

The WWW plan can be considered as a framework or guide which outlines courses of action or strategies that nations can follow in the development of effective and efficient national meteorological services through a co-ordinated, international scheme of co-operatively sharing skills, knowledge and resources.

The next four years are crucial in that for continued support in personnel, material and financial resources, the benefits of WWW must be demonstrated during this period.

routine aerial study sparks rescue at sea

In terms of coincidence, few search and rescue operations can compare with the experience of a team of D.O.T. employees who came across a burning cabin cruiser last summer while on a routine flight over the coast of British Columbia.

It all started during the course of a special study of small boat harbors in British Columbia, being carried out by Dr. Thomas How, formerly regional director of air services at Vancouver, prior to assuming his new post as deputy director of air services in Ottawa.

On June 28, Airways Inspector Bob Smith and Engineer Don Roberts were flying Dr. How over the Campbell River area in a D.O.T. Beaver so that he could take aerial photographs to support his report when they ran out of film and decided to fly to Comox for a fresh supply.

Enroute, they noticed a plume of smoke rising from the water about 10 miles distant and decided to investigate. The events that followed are taken from Inspector Smith's report:

"Upon reaching the smoke, we observed a burning cabin cruiser situated approximately four miles off the shore and halfway between Comox and Campbell River.

"Comox tower was immediately alerted to get the Search and Rescue helicopter over to the scene to pick up survivors. They advised that the helicopter was unserviceable but an Albatross preparing to take off on a training mission would be diverted to the scene.

"Since no sign of life was evident near the boat, which was burning fiercely by this time, a search downwind from the vessel was commenced. The Albatross joined the search just as the vessel exploded and sank.

"With the sea as rough and cold as it was, it was not likely a person would last too long. The aircraft was prepared for a landing and the search continued downwind, with the Beaver at 300 feet and the Albatross at 600 feet. About this time a fishing boat must have noticed all the commotion as one was heading over to where the boat had sunk.

"Comox then advised the helicopter was serviceable and subsequently despatched. It arrived and was hovering over the spot where the boat went down looking for anything of interest and dropping smoke flares to mark the site.

"We were circling at 90 degrees to the surface wind along the tide line (which was evident by much driftwood) when a hand was seen waving in the water. As mentioned previously, the water was quite rough with white caps and foam streaks and it was only by sheer good luck that the survivor was spotted.

"As a matter of interest, he was approximately one quarter mile from his boat at right angles to the surface wind. Being low in the water, the tide obviously had a greater effect on his body than the wind.

"The helicopter was alerted that someone was in the water and our aircraft was positioned over the survivor to give them a bearing. Hovering just over the water, two of their para rescue team jumped in and took the survivor in tow. The fish boat "Ideal" was near by this time and picked the three men up.



Dr. T. G. How

Survey saved a life

"The Albatross then tried to get through by radio to the fishing craft to see if any more people were likely to be in the water. In the meantime, the search was continued along and downwind from the tide line where the lone survivor was spotted.

"Eventually, it was determined by radio that there were no other passengers on board, the search was terminated and we proceeded to our destination."

Later it was learned that the survivor was a retired air force wing commander when he wrote to thank the D.O.T. crew the following letter:

"Dear Inspector Smith:

"I regret not writing you sooner to thank you for your most effective participation in my rescue on the morning of 28 June, but I've been drying out and practising swimming.

"During my 27 years of air force service, I was always a 'fighter jock', but I can assure you a Beaver viewed from the briny is a very pretty aircraft as is the Labrador twirling above your head.

"Watching the three planes and the fishboat "Ideal" concentrating their attention on my burning vessel, I was becoming concerned that I would not be spotted, particularly among all the debris I knew was floating around me.

"The fact that I hadn't a life jacket on and was wearing a dark grey sweater added to my concern, but I had 'bailed out' too fast to grab a jacket and eventually became too tired to attempt to remove the sweater. Your spotting me under these conditions is miraculous and your eyesight should guarantee many happy years as a pilot.

"Again I thank you and hope some day our paths may cross in order that I may do so personally.

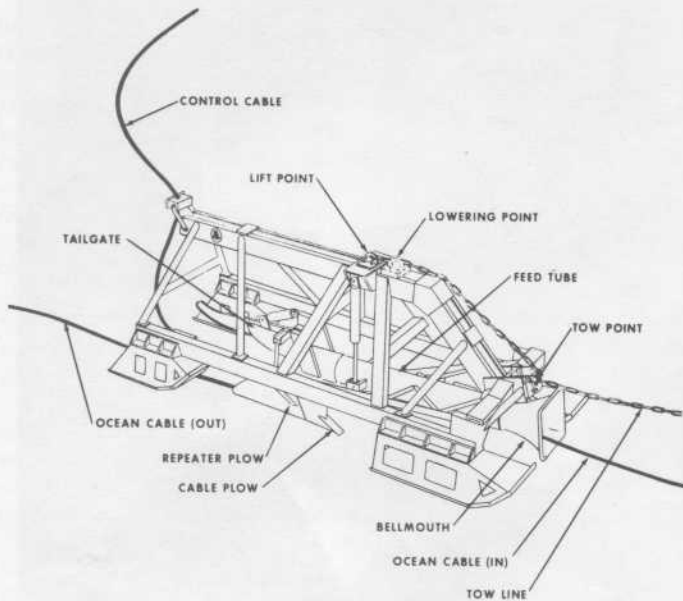
"Yours sincerely," the letter was signed,

"W. L. Drake, W/C (ret'd.)"

A footnote to the story mentions that Dr. How regretted that he didn't have any film to take a picture of the rescue, to which Inspector Smith is reported to have replied: "If we'd had the film, there might not have been a rescue."

operation sea plow

by Walter Foster
Chief Testing Officer
Canadian Overseas
Telecommunication Corp.
St. John's, Newfoundland



SEA PLOW

CANADA HELPS OUT—An architect's drawing of the Sea Plow, conceived and built by Bell Systems' engineers in the United States, shows how the device is designed to cut a shallow trench in the seabed and bury trans-Atlantic telecommunications cable to protect it from damage by fishing nets and dredgers. The accompanying photo shows the Sea Plow being lowered over the side of CCGS John Cabot, a unique icebreaking and cable repair ship whose qualities best fitted it for the delicate job of pulling the Sea Plow over more than 100 miles of seabed.

LE CANADA PRÊTE SON CONCOURS—Aux États-Unis, des spécialistes de la compagnie de téléphone Bell ont construit une immense «charrue sous-marine» qu'on utilise dans les profondeurs de l'océan pour enfouir les câbles servant aux télécommunications transatlantiques. Cette charrue, qu'on aperçoit dans les photos accompagnant ce reportage, mesure 24 pieds de longueur par 11 pieds de largeur et pèse 14 tonnes. Elle a été utilisée la première fois en juillet dernier pour enfouir une centaine de milles de câbles dans le lit de l'Atlantique, à partir de la côte du New Jersey. La Garde côtière canadienne a joué un rôle important dans ces travaux. Un de ses navires, le brise-glace-câblier John Cabot a agi comme remorqueur au cours des opérations. Dans une des photos, on voit le navire canadien à l'œuvre. Des membres de l'équipage s'apprêtent à descendre la charrue à l'eau. Dans le passé, les câbles transatlantiques situés à cet endroit ont souvent été brisés ou endommagés par des dragues et des filets de pêcheurs. A l'aide de la charrue, remorquée au fond de l'eau à des profondeurs allant de 120 à 900 pieds, on a creusé une tranchée et enfoui les câbles à 18 pouces dans le lit de l'océan.

Captain D. S. Tosh, master of the CCGS *John Cabot*, made contact with his support craft off the coast of New Jersey. It was July 5, 1967 and the rendezvous was the result of seven years of study and research, theories pursued and formulated at drawing boards and in laboratories, tested on land and tried at sea.

The aim? To plow a trench in the seabed and simultaneously lay submarine cable.

The continents of the world are linked by a global network of submarine cables snaking across the seabed and emerging at terminal stations on land.

While cable which lies in the ocean's depths is safe from man's interference, that which traverses the continental shelves is continually in jeopardy from commercial fishing operations.

Damage to a cable results in loss of communication vital to statesmen, commerce and industry, and the private individual.

Repair operations are expensive and are sometimes unavoidably protracted. All systems may be "go", with ships and men standing by to effect an efficient repair when suddenly weather conditions worsen and the delicate procedures on which the repair depends are delayed.

As long ago as 1938, cables were buried off the coast of Ireland by the Western Union Telegraph Company. Secure beneath a protective layer of sand, mud and rocks, these buried cables were safe from man's interference.

While the method proved practical in that instance, albeit with relatively primitive equipment and only limited knowledge of the seabed, there was no guarantee it would be effective in other areas and the outbreak of war in 1939 brought to a halt any further work in this field.

Post-war boom

The post-war era brought an enormous increase in all types of commercial fishing on both sides of the Atlantic. Canada, the United States, Europe and Asia sent fishing craft to reap the rich sea harvest off the Eastern Seaboard. As fishing activities expanded on the continental shelf, damage to submarine cables inevitably became more frequent.

Off the coast of New Jersey lies a rich clay seabed where scallops thrive and where, naturally, the area is a prime target for scallop-dredgers.

It so happens that two multi-channel transatlantic cables linking America directly with France and Britain terminate in this area at Tuckerton, N.J., and despite all the efforts of scallop-dredgers to avoid damaging these cables, some

Two transatlantic telephone cables off the New Jersey coast have been damaged in the past by commercial fishing nets and dredges and despite a variety of efforts to keep the cable routes free, breaks have occurred, resulting in service disruptions and costly repairs. The solution to the problem was found by the American Telephone and Telegraph Company and involved the Canadian Coast Guard Ship John Cabot. Here, one of the men who was engaged in the project tells about it.

breakdowns in communication have occurred and a means to prevent such interruptions had to be found.

Encouraged by Western Union's pre-war work in burying cable, the American Telephone and Telegraph Company of New York requested Bell Telephone Laboratories to investigate the prospect of a cable-burying project off the New Jersey coast.

The project, if successful, would ensure continually uninterrupted voice communication with Europe.

Armed with experience in land cable plowing and oceanographic surveys, the Bell System accepted the challenge. A plow which could be towed across the seabed was designed.

Weighing 14 tons, this vehicle is 24 feet long, 11 feet wide and nine feet high. The plowshare is coated with an extremely tough, abrasion-resistant metal. The vehicle is fitted with floodlights and TV cameras, with flashlights and still cameras, hydrophones, hydraulic equipment for raising and lowering the plowshare.

Cable is buried

Along the length of the vehicle is a feed tube. The telephone cable passes through this tube, emerging at the rear to fall into the trench made by the plowshare. A tailgate enables bulky, signal-boosting repeaters in the cable to pass through the tube.

A towing cable with a breaking strain of 105 tons and a telemetering control cable join the vehicle to the surface ship.

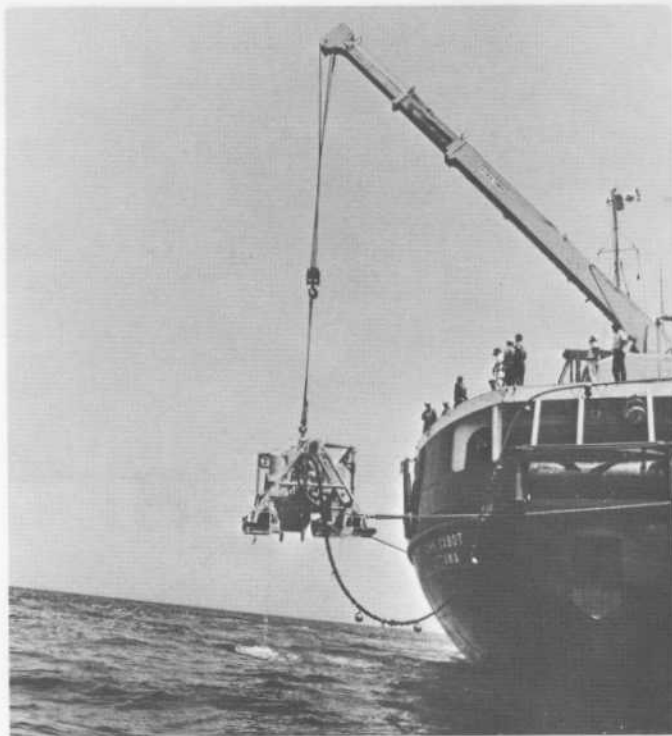
This ship must be an extremely specialized craft. It must be a highly stable platform. It must be manoeuvrable. It requires terrific main engine power in order to tow the vehicle. The hull strength must be adequate to sustain the weight of a heavy lift crane, a towing winch, and the vehicle while in transit. It needs complex electronic equipment to control the vehicle. It must be equipped to transport and lay telephone cable. It must be manned by professional seamen.

Canada has cause to be proud that CCGS *John Cabot* was chosen by A.T. & T. as suitable to perform these special functions.

The *John Cabot*, which usually operates from St. John's, Nfld., is unique in that she is an icebreaking cable repair ship and the only ship that can do this type of work in heavy ice conditions.

The ship's unique capabilities earned a special place for it in marine history when a submarine cable in Baffin Bay broke just southwest of Thule, Greenland, in November 1965.

Called in to try to repair the break, the *John Cabot* accomplished the seemingly impossible in 12 hours despite extremely adverse ice and weather conditions, a feat which won for it



the American Air Defence Command "Shield of Freedom" which was presented to Captain George Burdock, then its master, in a special ceremony in Montreal in July of 1966.

Cabot heads south

Last fall in St. John's, modifications were made to the ship's hull to prepare her for her gigantic undertaking and she weighed anchor in October to steam south and take aboard the heavy crane and the plow vehicle prior to commencing exploratory sea trials for the burying project, under the supervision of Bell Systems' personnel.

Although the weather was not conducive to extended trials, her tests proved sufficiently encouraging for the scientists to forge ahead with further modifications to the ship and the underwater vehicle. Operations were then suspended until the spring of 1967.

In May of this year, CCGS *John Cabot* slipped her moorings once again to head south, first call New York. There, a complex of electronic equipment was installed by Bell engineers. Cable was loaded, the modified plowing vehicle was landed on her afterdeck and all systems were checked out alongside the wharf.

Along the course *John Cabot* would be towing the vehicle, a midget submarine was surveying the seabed, checking for obstacles. A host of support craft was gathering in the operations area, among them two ocean-going tugs, a scuba-diving tender, and the British cable ship *Stanley Angwin*.

The *John Cabot* left New York to join them and four weeks of extensive trials were completed, involving the launching of the vehicle, the manoeuvring of it while it was on the seabed, the ploughing and burying of the telephone cable, the locating of a simulated broken cable by electronic detectors, the recovery of such a cable, and the co-ordination of work by a skin-diving team to manhandle the vehicle.

After a trip to Baltimore in late June, the *Cabot* loaded cables and repeaters required for her burying project and sailed to keep her historic appointment on July 5.

The ship completed burial operations on July 15th, inserting 40 miles of new cable into one communication system out of Tuckerton and nearly 60 miles into the other system.

Mission accomplished.



'Dear Sir: I'd like to buy your island.'

Have you ever thought you might like to buy an island?

An 11-year-old Lancaster, Ohio, boy thought about it enough to write the Department of Transport and offer \$7,270 for Sable Island, a D.O.T. outpost located 200 miles off the Nova Scotia coast.

"I have been looking at Sable Island for several months and I have been thinking I might like to buy it—that is, if you would sell it," wrote Tom Gander in a letter that came to the attention of W. F. Whitman, general manager of the Real Estate Branch.

Tom added that, while he couldn't afford to buy it for several years and while he wasn't sure of the price, "I thought you might sell it for \$7,270 under special terms."

The terms were set down as:

- 1) Residents of the island will remain and live as usual.
- 2) Food will be brought to the ponies every winter.
- 3) Life-saving stations will be kept in use, repaired and improved if necessary.
- 4) Improvements will be made to the island.
- 5) A new lighthouse will be built.
- 6) Canada's government boats will still visit the island.

"You may think these are useless terms, so I will ask you to add some of your own if you like," said Tom.

Mr. Whitman, in declining Tom's offer with thanks, wrote back that while he appreciated it, he was sorry to say that the island "is not for sale at this time."

But, he added, "your name will be on record if at some later date the island does become surplus to our requirements and can be sold."

Sable, a 25-mile-long by one-mile-wide piece of sandy real estate, has little value according to the Real Estate Branch.

Known as the "Graveyard of the Atlantic" because of the number of ships that foundered on or near it, the island has only a small complement of D.O.T. personnel who man its two lightstations and solitary weather observing station, and about 200 wild ponies who roam its desert-like wastes.

Why, then, would an 11-year-old boy be interested in the island? "The DOT" wrote to ask Tom, and how did he arrive at a price of \$7,270?

"I first became interested in buying an island," replied the youthful entrepreneur "when I decided I would like to design machines and buildings as Tom Swift, the story character, does."

"I would want an island with little or no population. It could not be valuable land, because I would want to buy it for a low price. Sable seemed perfect for it had a low population and the island itself was not of very fertile land. Its location was favorable also. I did not want an island in the Pacific as it was so far away. The Atlantic location was closer and easier to get to."

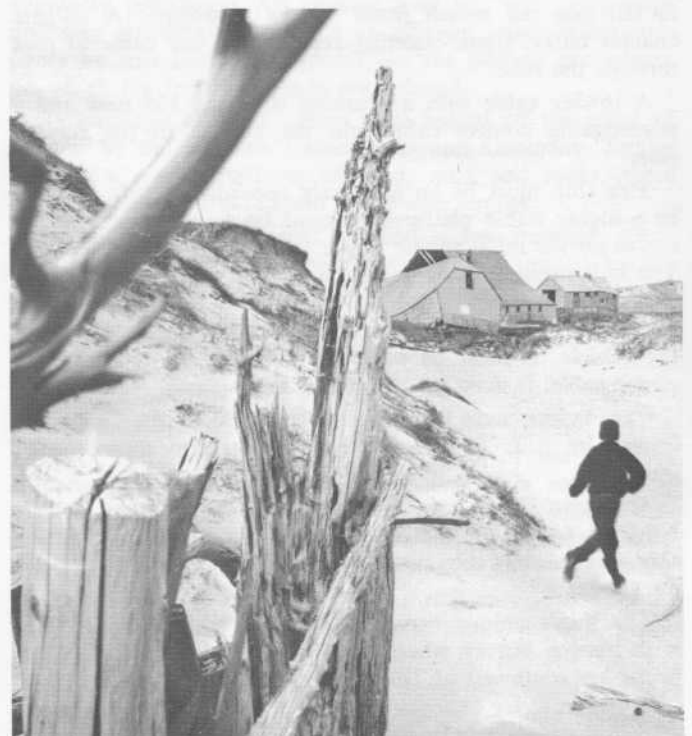
Tom said he had found out about Sable Island in the World Book Encyclopedia and the National Geographic.

"I wanted to find out how many acres Sable was, so I divided and multiplied to change miles to acres. I was going to pay five dollars an acre, so I multiplied five dollars by the number of acres. I am still not sure if my answer was right. I had not figured on the price of the lighthouses."

Tom added that he likes to read and go fishing with his father, sometimes in Maine.

"I collect coins and stamps and I will soon be a boy scout. I also like to swim and I have just won three ribbons. I am in the local Soap Box Derby this summer and I hope to win it."

The letter was signed "Sincerely yours, Tom Gander."



Young islander at play



Captain Paul Tooke

Twenty-two years ago a merchant ship named the S.S. *Point Pleasant Park* was torpedoed off Cape Town, South Africa and went down with the loss of nine lives.

It was a chilling experience that Paul W. Tooke, one of the 28 survivors and now master of the Canadian Coast Guard Ship *Edward Cornwallis*, can never forget.

His determination that others should never forget resulted in what became a Centennial project, the erection of a 10-foot-high stone cairn that stands today on a high rise overlooking Halifax Harbour in the park after which the ship was named.

"Each week, passing the park on my way down to the harbour, I remember the happy ship which carried its name halfway around the world and I wonder how many people in Halifax knew she existed and how she met her end," recalled the veteran seaman recently.

Capt. Tooke, who was instrumental in getting the project underway, saw his dreams for a permanent memorial to the men come true last July when a silver-haired grandmother from Owen Sound, Ont., the mother of one of the men who was lost, removed a maple leaf flag draped over the monument as 20 relatives and survivors of the original crew watched in silence.

The lady was Mrs. Albert Breen, 74, who lost her 29-year-old son Fred in the sinking of the vessel. Mrs. Breen was escorted during her visit to Halifax by Capt. Tooke and Gordon Smith, chairman of the Point Pleasant Park Commission.

Also attending the brief but moving ceremony were Lieutenant-Governor H. P. MacKeen, Dr. Stanley Haidasz, parlia-

One Man's Centennial Project

'LEST WE FORGET'

by Bryan Goodyer

Information Services Division

mentary secretary to the minister of Indian Affairs and Northern Development, and Halifax Mayor Allan O'Brien.

As Mrs. Breen removed the flag from the monument, Capt. Tooke's ship, the *Cornwallis*, gave three blasts of her horn—the international sailors' salute—from the harbor below.

The inscription on the cairn's dedication plaque reads: "This cairn is dedicated to the memory of these gallant and unsung men of the Merchant Navy, and to the happy ship in which they served Canada and died for her freedom."

Below the inscription were the names of the nine crew members of the S. S. *Point Pleasant Park* who were lost.

In a brief address to the gathering, Capt. Tooke said the story of the ship "has laid buried in our sea chest for 22 years" and paid tribute to the men in the words of Sir Winston Churchill as "gallant, unsung men."

The *Point Pleasant Park* was a 10,000-ton vessel, one of 174 "park" ships built to carry war material and food supplies from Canada to the theatres of war throughout the world.

Torpedoed on Feb. 23, 1945, Capt. Tooke, who was then third officer aboard the ship, and 27 other survivors of the sinking, were finally rescued 10 days later after they had drifted over 400 miles in lifeboats before being picked up by a South African ship.

For the Coast Guard officer, it was the second time during the war that he had been torpedoed. The first sinking he experienced was as a member of the crew aboard the lake freighter *Donald Steward* in 1942.



Le n.g.c.c. «Nicolet» constitue évidemment un des plus importants outils dont dispose la Division du chenal maritime du St-Laurent dans ses travaux d'entretien et d'amélioration du chenal. Ce navire de sondage est équipé de l'outillage le plus moderne qui soit pour balayer le lit du chenal et déceler les obstacles qui pourraient s'y trouver. Le balayage se fait à l'aide d'une barre d'une quarantaine de peids de longueur suspendue sous le navire. Lorsque la barre rencontre un obstacle quelconque, son déplacement vertical est enregistré sur un indicateur installé sur la passerelle du navire. On est ainsi en mesure de déterminer la hauteur et l'endroit précis de l'obstacle rencontré. Dans cette photo, on voit la barre de balayage attachée à la proue du navire.

Une des plus récentes acquisitions de la Garde côtière canadienne, le «Nicolet», navire de sondage moderne équipé d'un outillage spécialement conçu pour repérer les obstacles à la navigation dans le chenal maritime du Saint-Laurent, a abattu une tâche énorme depuis qu'il a été mis en service au début de cette année. Il s'est révélé un outil des plus précieux dans le travail indispensable qu'on poursuit sans relâche pour assurer la sécurité de la navigation dans le Saint-Laurent, cours d'eau historique qui, depuis l'époque des premiers explorateurs, joue un rôle de première importance dans l'expansion économique et industrielle du Canada.

Comme première mission, peu après sa sortie des chantiers de Collingwood Shipyards au printemps de cette année, le «Nicolet» a été chargé de patrouiller les eaux du voisinage de l'Anse-au-Foulon en prévision de l'arrivée à Québec du paquebot «France». Ce navire, l'un des plus immenses paquebots qui ait jamais remonté le fleuve jusqu'à Québec, a accosté sans peine à l'Anse-au-Foulon, le 9 mai dernier.

Pendant plusieurs semaines avant l'arrivée du «France», le «Nicolet», à l'aide d'une barre de balayage suspendue sous le navire, a sondé le lit de la rivière sur toute sa largeur, y repérant les obstacles qui auraient pu nuire au passage du paquebot. Son travail n'a pas été inutile. On a découvert en effet que le chenal à certains endroits n'avait pas les profondeurs requises. On a donc fait appel aux dragueurs qui ont enlevé plusieurs tonnes de vase et d'autres matières sédimenteuses aux endroits indiqués.

Le «Nicolet», habilement piloté par le capitaine Gabriel Carré, compte un équipage expérimenté de 27 membres. D'une longueur de 166 pieds et demi et large de 35 pieds, il a un tirant d'eau en charge de 9 pieds et six pouces. Facile à manœuvrer, il peut se déplacer à une vitesse maximum de 13 nœuds.

Jusqu'à maintenant, il a été particulièrement utilisé dans la section du fleuve s'étendant entre Portneuf, en amont de

Le «Nicolet», précieuse acquisition de la Garde côtière canadienne

par Edouard Deslauriers
Services d'information

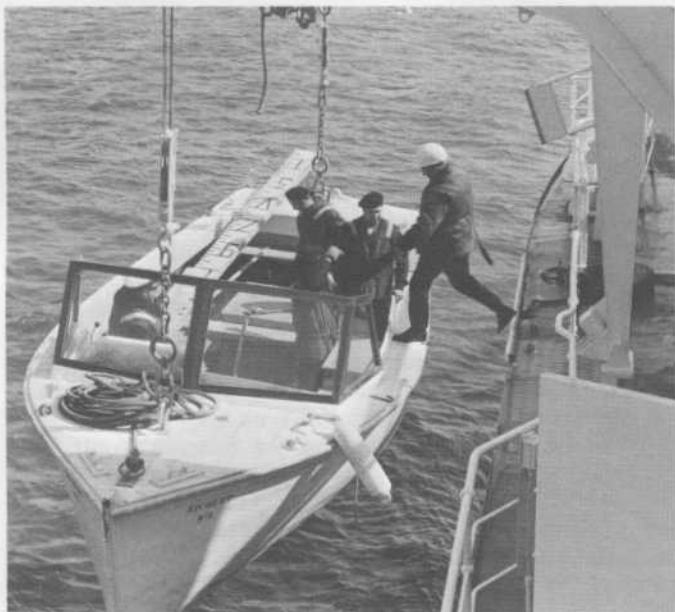
Québec, jusqu'aux environs de l'embouchure du Saguenay. Au cours des mois d'été, on l'a vu à l'œuvre dans la rivière Saguenay entre Saint-Fulgence et Chicoutimi. A cet endroit, il a effectué un sondage complet du lit de la rivière sur une distance d'une douzaine de milles. Ces travaux ont eu pour but d'établir dans cette section du fleuve une profondeur de 20 pieds à l'étiage. Les opérations de sondage se poursuivront à cet endroit à intervalles réguliers afin de maintenir la profondeur requise à 20 pieds.

Entièrement construit en acier soudé, le «Nicolet» a été spécialement renforcé pour la navigation dans les glaces. C'est dire qu'on peut se prévaloir de ses services même pendant les mois d'hiver.

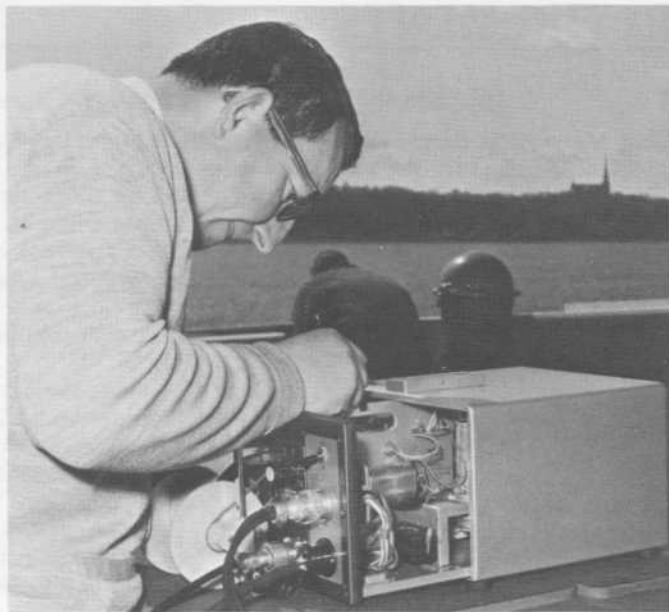
Au cours des derniers mois, il a été appelé à sonder et balayer le lit du chenal sud du fleuve en aval de Québec en prévision de la réouverture prochaine de ce chenal à la navigation. On sait que le ministère des Transports, pour des raisons de sécurité, a décidé de réaménager le chenal sud de façon à ouvrir deux voies à sens unique pour les navires remontant et descendant le fleuve à cet endroit. C'est un travail d'envergure qui ne sera vraisemblablement complété que dans cinq ans.

Le «Nicolet» s'est donc déjà adonné aux travaux préliminaires entrepris dans la section du chenal sise entre Québec et un point en aval de l'Île-aux-Coudres. On sait qu'on propose à cet endroit de porter la largeur du chenal sud à 1,000 pieds et sa profondeur à 35 pieds à l'étiage.

Selon les ingénieurs de la Division du chenal maritime du Saint-Laurent, le «Nicolet» parvient à accomplir les tâches les plus variées et les plus difficiles avec beaucoup d'aise. La facilité avec laquelle il surmonte les situations les plus difficiles rencontrées sur son chemin en fait un outil précieux pour le ministère qui cherche constamment à améliorer par tous les moyens possibles ses services à la navigation dans le Saint-Laurent.



Une phase des opérations dans le chenal maritime consiste en des travaux d'arpentage à divers endroits sur les deux rives. Une équipe d'arpenteurs quitte donc le « Nicolet » à bord d'une embarcation dans laquelle on a disposé tout l'outillage dont on aura besoin pour les travaux sur terre.



Cet appareil, installé sur la passerelle du navire de sondage, sert à enregistrer la hauteur exacte et l'endroit précis des obstacles repérés au fond du chenal maritime à l'aide de la barre de balayage suspendue sous le navire. Dans cette photo, l'ingénieur Jacques Gosselin vérifie les données enregistrées sur l'indicateur.



Dans la «salle de pointage» à bord du «Nicolet», des ingénieurs se penchent sur la table de travail où, à l'aide des données recueillies par l'indicateur de sondage installé sur la passerelle, ils indiquent sur une carte marine les endroits précis où des obstacles ont été repérés dans le chenal maritime. Ces renseignements sont ensuite transmis aux dragueurs qui verront à supprimer l'obstacle constituant un danger à la navigation.

RETIREMENTS

C. M. Brant

Cecil Mornington Brant, Deputy Director of Air Services for the past six years and a veteran of more than 28 years' service with the Department of Transport, has retired.

Born at Holbeach, England, Mr. Brant received his early training at Chesterfield and later graduated from the London Polytechnic Institute.

He received his first training in radio at the Royal Air Force training school at Winchester and later attended McGill University, Montreal, in 1944 for post-graduate studies in electron physics and electrical engineering.

From 1926 to 1932 and from 1942 to 1946, Mr. Brant was in the RAF where he was successively senior signals officer, British West Indies, telecommunications engineering officer for the North Atlantic area and deputy chief signals officer at Montreal.

He retired from the air force with the rank of squadron leader.

In 1937, while an employee of the British Air Ministry, he was sent to Newfoundland to supervise construction of radio communications to set the stage for trans-Atlantic commercial aviation, first at Botwood and later at Gander.

Mr. Brant came to the Department of Transport on April 1, 1949, when Newfoundland joined Confederation.

He was appointed superintendent of radio regulations in 1953, named controller of radio regulations in 1956, made chief of technical and policy co-ordination in 1958, and appointed to his present post on Aug. 2, 1961.

Mr. Brant was honored by some 200 friends and colleagues from all across Canada at a reception and dinner last Sept. 28 in the International Ballroom of the Skyline Hotel in Ottawa.



Miss Olive K. Anderson

A girl who served the Department of Transport in the Air Regulations Division for more than 30 years has retired.

Miss Olive K. Anderson was given a staff farewell and presented with gifts that included a table lamp and a travel alarm clock at a ceremony in the Winnipeg regional office of Air Services last July 26.

Among those extending their congratulations were W. E. Fenn, regional director of air services at Winnipeg, and J. D. Craton, regional superintendent of air regulations.

Miss Anderson started work in November 1930 with the civil aviation division of the Department of National Defence.

She was transferred to the Department of Transport at its formation in 1936.

F. Richards

A man who says he plans to "just putter around for awhile" has retired from the Department of Transport after more than 41 years of service.

Francois (Frank) Richards, who joined D.O.T. as a radio operator at Halifax in May 1926, was supervisor of the radio frequency and call sign assignment subsection of the Radio Regulations Division when he retired.

Mr. Richards worked as a radio operator for 11 years before he was transferred to Montreal. There he spent two years as an inspector of radio regulations, then spent the next 16 years as a radio technician working out of Montreal, a job which took him across most of eastern Canada from Montreal to the Maritimes and into the Arctic.

In 1955, he was appointed to headquarters where he has worked ever since.

And what are his plans for retirement? "Oh, I think I'll go back to the Maritimes for a visit, take a trip to California, and then head back to Ottawa to look after my garden," said Mr. Richards.

Matthew Munro

Matthew Frank Turnbull ("Matt") Munro, a veteran of more than 30 years with the Steamship Inspection Branch of the Department, retired last Sept. 22 after a farewell presentation at headquarters.

Mr. Munro, who started work in the government service as a steamship inspector at Saint John, N.B., was deputy chairman of the board of steamship inspection when he retired.

A painting, the going-away gift selected by his colleagues, was presented to Mr. Munro by Gordon W. Stead, assistant deputy minister, marine, who paid tribute to Mr. Munro's talent and ability during his lengthy career in Marine Services.

In accepting the painting, Mr. Munro said he suspected some "skulduggery" in its selection.

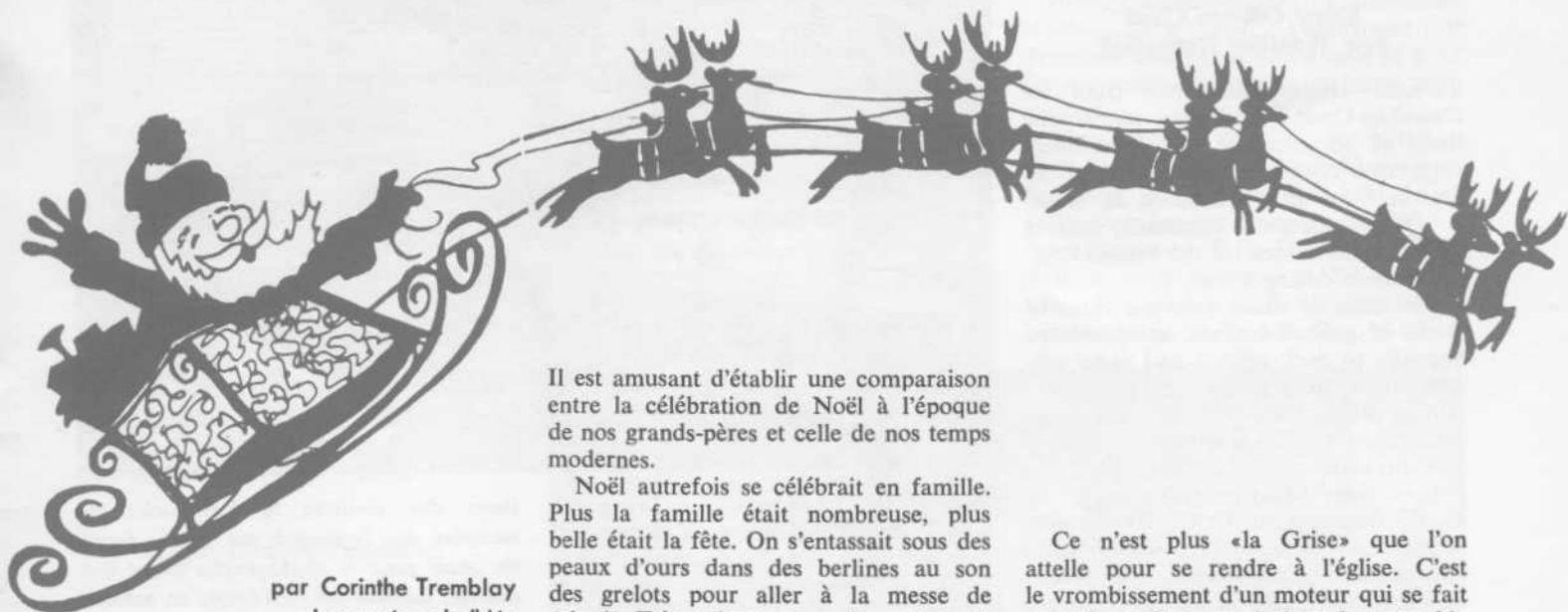
Later, the organizers of the farewell, H. O. Buchanan and J. H. Birtwhistle, admitted that they arranged to have the painting presented to Mr. Munro after learning from his wife that he had been admiring it recently in a downtown shop.

Following his last day of work in the Hunter Building, Mr. and Mrs. Munro completed arrangements to leave for Florida where they plan to begin their retirement leave.



Mr. and Mrs. Munro and Mr. Stead

NÖEL d'hier et d'aujourd'hui



par Corinthe Tremblay
des services de l'Air,
région de Montréal

Il est amusant d'établir une comparaison entre la célébration de Noël à l'époque de nos grands-pères et celle de nos temps modernes.

Noël autrefois se célébrait en famille. Plus la famille était nombreuse, plus belle était la fête. On s'entassait sous des peaux d'ours dans des berlines au son des grelots pour aller à la messe de minuit. Très gaiement on s'en retournait au bercail en chantant à tue-tête des Glorias qui se perdaient dans le vent. Si l'on manquait le clair de lune, l'obscurité, les rafales de l'hiver et même «la poudrerie» y faisaient des leurs. On a vu certaines carrioles et des traîneaux renversés par la tempête ou à cause des mauvais chemins, mais on n'y voyait pas une tragédie. Chacun se ramassait à qui mieux mieux, et le trajet se poursuivait en riant.

Après la messe, on se rendait à la maison paternelle pour le réveillon. La parenté franchissait des milles pour cette célébration. En arrivant, on y trouvait un beau sapin vert dégageant la senteur de nos forêts et tout décoré de serpentins aux vives couleurs. Pommes et oranges suspendues à ses branches tournoyaient à la lueur des chandelles. On s'échangeait des cadeaux; on chantait; on dansait jusqu'au matin sur des airs d'accordéon. Les plus favorisés avaient un «violoneux» battant la mesure avec ses talons. A table, on faisait honneur aux tourtières, aux cretons, au fromage de tête, aux beignes et aux pâtisseries de toutes sortes.

Aujourd'hui, nous sommes au siècle de la vitesse. Noël se fête de moins en moins à la maison. La vie de famille semble disparaître graduellement. Chacun va de son côté.

Ce n'est plus «la Grise» que l'on attelle pour se rendre à l'église. C'est le vrombissement d'un moteur qui se fait entendre et l'on prend place dans un chic véhicule des temps modernes. C'est à toute vitesse que l'on se rend à l'église. On se hâte sans trop savoir pourquoi. Le bon vieux «Père Noël» lui-même semble aussi hâter le pas. Il nous arrive plus souvent en hélicoptère. Ses rennes n'ont plus leur place en ce siècle de la vitesse.

Aujourd'hui, il est rare que l'on serve la réveillon à la maison. On organisera plutôt un dîner de famille réduite... On s'échangera aussi de riches cadeaux devant un arbre artificiel blanc, argent ou doré, parsemé d'ampoules colorées. On ne veut plus du beau sapin de chez-nous; il salirait les tapis. A ces repas, on servira des mets exotiques arrosés de vins importés, et les gourmets s'en gaveront. Ce ne sera jamais plus le réveillon de Noël où l'on ingurgitait pour se réchauffer un bon «caribou» ou encore le fameux vin de cassis fait à la maison.

Dans ce tourbillon des temps modernes, y retrouvons-nous vraiment ces heures romantiques des Noëls d'autan? Allons, ne nous laissons pas aller à la nostalgie! Rien ne sert de rêver, car enfin, ces gens étaient-ils plus heureux que nous? Essayons d'apprécier davantage et dans toute sa valeur l'ère du progrès.

En résumé, vivons joyeusement notre siècle et célébrons avec enthousiasme Noël d'aujourd'hui.

CROSS CANADA DATELINE

Ships' Officers Cited For Weather Reporting

Toronto—Officers and men from six Canadian Coast Guard ships were among those of 36 merchant and government ships who have received a total of 59 awards from the Department of Transport for excellence in voluntarily making marine observations for the Meteorological Branch during 1966.

The awards, which take the form of books of general interest, are presented annually to deck officers and radio officers whose work in making and transmitting weather observations attained an exceptionally high standard of quality and quantity.

Four ships' radio operators, including E. R. Bonneau of CCGS *D'Iberville*, S. A. Greer of CCGS *Labrador*, N. T. Kristensen of CCGS *John A. Macdonald*, and W. W. Schulz of CCGS *Camsell*, received copies of the book "From Semaphore to Satellite" for transmitting the greatest number of voluntary reports during the year.

Among those presented with awards for individual reporting was Desmond Daly of St. John's, Nfld., a deck officer aboard CCGS *Sir Humphrey Gilbert*, who was one of 15 deck officers to receive a copy of "Birds of Canada" by W. Earl Godfrey.

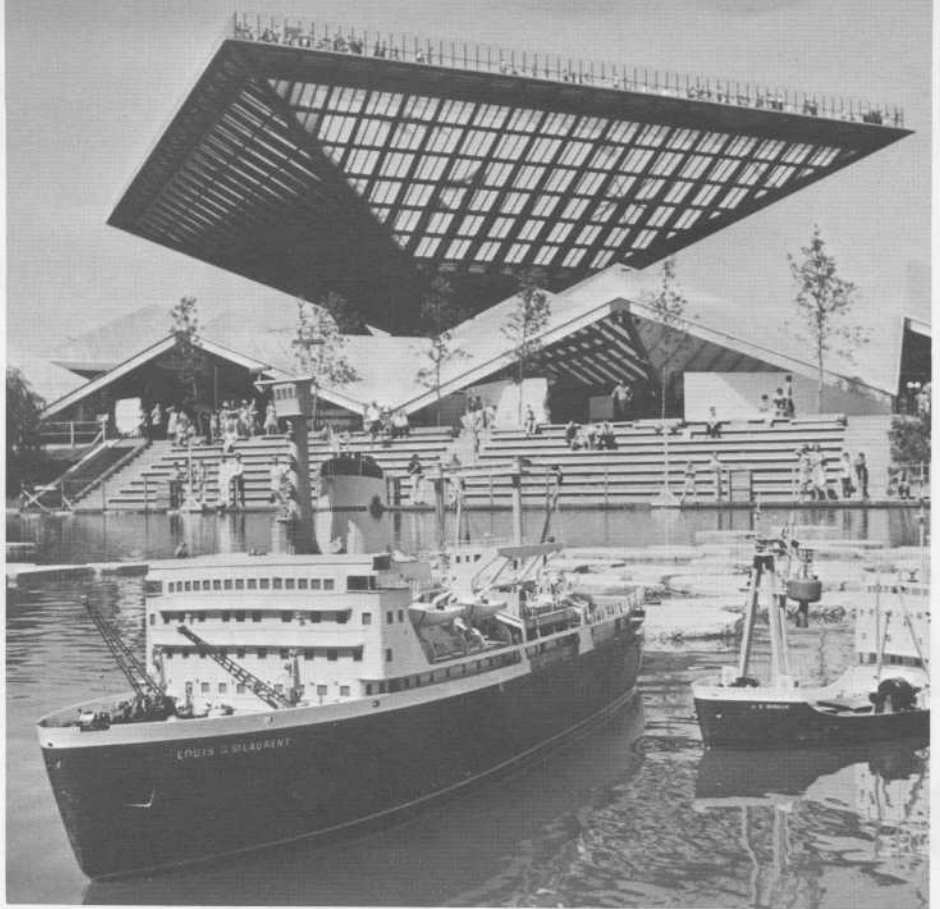
Cited as a group for their work were the officers and men of CCGS *Narwhal*, among those ships operating out of eastern Canadian ports who contributed to the voluntary observations.

The ship was awarded a copy of "Patterns of Canada," edited by W. J. McGill.

Aside from a few stationary weather ships posted at strategic locations, the merchant ships of the world are the principal source of information on the weather over the oceans, said J. H. R. Noble, director of the Met. Branch, who announced the awards.

About 4,000 ships belonging to some 35 different nations send reports as often as four times a day by radio to the meteorological service of the nearest country, he said.

In 1966, Canadian ships made about 45,000 reports, used by meteorologists to prepare their daily forecasts.



Two of the Department of Transport's remote-controlled ship models at Expo 67 took time out to pose for the photographer just before the big show closed late in October. The ships, models of CCGS Louis S. St-Laurent, which was launched last December, and CCGS J. E. Bernier, which was launched early this spring, have been turned over to the National Museum of Science and Technology in Ottawa where they will be put on display after being checked over and housed in glass show-cases by their builder, master model maker Philippe Demeules of Sorel, Que.

Deux des modèles télécommandés du ministère des Transports ont pris le temps de poser pour le photographe avant leur dernier «spectacle» à l'Expo, en octobre dernier. Les navires, répliques du n.g.c.c. Louis S. St-Laurent, lancé en décembre dernier, et du n.g.c.c. J. E. Bernier, lancé au début du printemps, ont été une des grandes attractions de l'Expo. Le ministère se propose maintenant de confier les modèles au nouveau Musée de la science et de la technologie qui a ouvert ses portes à Ottawa en novembre dernier.

Man of the Month

Ottawa—A D.O.T. landscape architect has been named man of the month by the American Institute of Landscape Architects.

William P. Wetherell, officer-in-charge of properties, zoning and landscape planning with the Construction Engineering and Architectural Branch of the Department, won the honor for his work at Edmonton International Airport.

Mr. Wetherell is responsible for the determination of the extent of land to be acquired for airport construction purposes, initiates airport zoning requirements and also plans and implements landscape projects for the Department's new air terminal buildings across Canada.



W. P. Wetherell

Radio Operator Doubles as Spare-Time Newsman

Brochet, Manitoba—What do radio operators—especially those serving in remote outposts—do with their spare time?

Ken Slyziuk, who graduated from the Air Services Training School in Ottawa last May and was posted to the radio-meteorological station here, started a small weekly newspaper in this northern Manitoba village.

Ken said he found that life can get "quite boring with nothing to do" once an operator completes his shift and most of the boys turn to their hobbies to keep themselves busy.

"I have done some writing in my life and I was asked to provide a small paper for the village people," Ken said in a letter to "The DOT" in which he enclosed a copy of "The Brochet Weekly Tribune."

The result of his off-duty efforts is a six-page carbon-copied potpourri of news, local events and sports that reads with the lively flavor of Canada's north-land and sells for just 10 cents.

Capt. Graves Promoted

Ottawa—Captain George Graves has assumed his new appointment as chief of Marine Services' Nautical and Pilotage Division.

Capt. Graves, formerly executive assistant to Gordon W. Stead, Assistant Deputy Minister, Marine, takes over from Captain Fred S. Slocombe who recently retired after more than 30 years' service with the Department.

A mariner since his boyhood days, Capt. Graves is a native of Vancouver who initially trained for the merchant marine as a cadet aboard H.M.S. *Conway*, the British merchant navy training vessel at Liverpool, England.

After two years of training, he became a cadet aboard the Canadian Pacific "Empress" ships operating between Vancouver and the Orient.

Capt. Graves joined D.O.T. in 1955 as principal examiner of masters and mates and became superintendent of nautical regulations in 1959, a post he held until he was appointed executive assistant to Mr. Stead in July 1963.

Nouveau poste au capitaine Graves

Le capitaine George W. R. Graves, un vieux loup de mer dont la carrière a débuté dans les services de la marine marchande britannique alors qu'il était

encore adolescent, dirige depuis le mois d'août dernier la Division nautique et du pilotage du ministère des Transports. A ce poste, il a succédé au capitaine Fred S. Slocombe, qui a pris sa retraite récemment après plus de 30 ans de service au ministère.

Né à Vancouver, le capitaine Graves, encore très jeune, s'inscrit à un cours d'élève-officier de la marine marchande britannique à Liverpool, en Angleterre. Après deux ans de formation, on le retrouve à bord des navires *Empress* du Pacifique-Canadien assurant le service entre Vancouver et les pays d'Orient.

Au cours du deuxième conflit mondial, il passe au service de la Réserve royale navale. Il termine son service militaire avec le rang de lieutenant commander.

En 1955, le ministère des Transports retient ses services à titre d'examineur principal des capitaines et des lieutenants, et, en 1959, il devient surintendant des règlements nautiques. Enfin, en 1963, il est nommé adjoint exécutif de M.

Gordon W. Stead, sous-ministre adjoint pour la Marine. Il occupait ce poste au moment de sa plus récente nomination.

Suggestions Win \$175 for Six D.O.T. Employees

Ottawa—A suggestion that a modification to a marine beacon transmitter would overcome a potential fault resulted in a \$50 award to L. C. Knight, an electronics technician here.

Among additional awards announced recently, five other Department of Transport employees won a total of \$125 for suggestions designed to improve work methods.

They included Miss D. M. Miller, a clerk at Edmonton, \$40; J. D. Gale, a firefighter at Stephenville, Nfld., \$30; R. C. Saunders, an electronics technician from Richmond, B.C., \$30; C. R. Cromwell, a radio operator at Schefferville, Que., \$15; and A. S. J. M. Clements, a communicator at Dorval, Que., \$10.



UNE TÂCHE AGRÉABLE—M. Jeffrey Ho, attaché à la bibliothèque du ministère des Transports, a pris cette photo au moment de l'ouverture officielle de la nouvelle Bibliothèque nationale, rue Wellington, à Ottawa. Le premier ministre Pearson venait tout juste de couper le traditionnel ruban à l'entrée de l'immeuble. Il est photographié en compagnie de l'ancien ministre des Transports, M. J. W. Pickersgill, et de M^{me} Ellen Fairclough, qui assumait le poste de Secrétaire d'État au moment où le projet de la nouvelle Bibliothèque nationale a été mis en œuvre.

A PLEASANT DUTY—Jeffrey Ho, a member of the library staff at D.O.T. headquarters, was on hand for the official opening of the new National Library building at Ottawa recently and took this picture of a smiling Prime Minister Pearson just after he cut the ribbon and declared the handsome new building open. Assisting the Prime Minister were former Transport Minister J. W. Pickersgill and Mrs. Ellen Fairclough, who was Secretary of State at the time plans for the library were initiated.

Canadian Coast Guard **ALBUM** de la Garde côtière



The CCGS *Montcalm* is a heavy icebreaker based at Quebec City which operates in the Gulf of St. Lawrence and St. Lawrence River during the winter, then takes part in the Department of Transport's annual northern supply operations during the summer months.

CCGS MONTCALM

LENGTH: 220 feet
BREADTH: 48 feet
DRAFT: 16 feet, four inches
POWER: Steam, 4,000 IHP
GROSS TONNAGE: 2,017 tons

Le n.g.c.c. *Montcalm* est un brise-glace lourd ayant son port d'attache à l'Agence de la marine de Québec. Durant les mois d'hiver, il s'adonne au déglacage dans le fleuve et le golfe Saint-Laurent. Au cours de l'été, il est affecté aux opérations de ravitaillement dans l'Arctique.

LE N.G.C.C. MONTCALM

LONGUEUR: 220 pieds
LARGEUR: 48 pieds
TIRANT D'EAU: 16 pieds, 4 pouces
PUISSANCE: vapeur, 4,000 cv
JAUGE BRUTE: 2,017 tonneaux