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A Face-lifting For Buoys (see page 2)

# News on the DOT

DEPARTMENT OF TRANSPORT STAFF PUBLICATION

- MARCH - APRIL 1961

# BACKGROUND ON OUR COVERS



**T**HE only unregistered lighthouse in Canada sits atop the northwest corner of the marine agency building in Prescott. Although it is kept in ship-shape condition, its third order light has never been used to guide ships. It was constructed as a model in 1911 and is turned on only once a year at Christmas time to guide gay holiday shoppers home.

However, the lighthouse is not the only unique thing about the department's Prescott operations. If you visit the 50-year-old building (as News on the DOT did) you will meet a blacksmith (J. K. Fortier), a coppersmith (Gordon Henry) and a tinsmith (Leonard Urquhart), who are all highly skilled craftsmen. Each takes a great deal of pride in his part in turning out navigational aids.

The Prescott Marine Agency is Canada's only manufacturing plant for these navigational aids. It is here that buoys (rhymes with Louis), lights, beacons, diaphones, radar reflectors, range towers, whistle valves and a multitude of other items, large and small, are turned out for all the other marine agencies in the country.

One of the things which impressed us during our recent visit to Prescott was the spotless condition of the entire premises. From District Marine Agent J. S. Barrick's third floor office, to the foundry, to the paintshop, to the fabricating area, everything shone. Throughout the buildings the floors were unbelievably clean. This was even more amazing considering that the staff of some 75 men were experiencing the busiest time of the year with lights and buoys being brought in aboard the CMS *Grenville* for painting and repair in readiness for spring navigation.

With Shop Superintendent Harold Smith as our knowledgeable guide we first saw the agency's museum. Some of the items on display dated back to the turn of the century, but it was interesting to note that the style of many, such as diaphones, had experienced no significant change in design for 50 years or more.

Mr. Smith pointed out an intricate piece of French clockwork, bought just prior to 1913. It was designed to turn the light on a particular lightship but, unfortunately, the vessel was torpedoed before the clockwork was installed and so it has never been used.

Leaving the museum area we walked down a long corridor lined with row upon row of lanterns of any number of sizes, shapes and colors. In a room at the end Harry Cassel (see back cover) sat painting

the bases a brilliant shade of vermillion. Incidentally, Harry is in for a great deal of good-natured ribbing from his co-workers during the months to come. He has declared himself a contestant in the beard growing competition connected with neighbouring Morrisburg's centennial celebrations next July. While he sits painting the lanterns his beard grows and grows—he hopes!

Cleaning and painting the buoys is a more difficult task. Deposited on the Prescott dock on December 10, the six-foot electric buoys shown on our cover each weigh three tons. It took a ten ton mobile crane to hoist and carry each one to the paintworks where it was treated to a new spring outfit.

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### News on the DOT

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# Floating Laboratory

by U. Sporns

*Meteorological Branch (Hydrometeorology Section)*

**T**HE Great Lakes cover an area equal to twice the size of Nova Scotia, but we have never been able to obtain more than scattered weather observations from this region in summer and none at all in winter.

Questions of many years standing have gone unanswered. How much snow and rain fall directly into the Lakes and how much water evaporates? Why does ice form or accumulate only in certain areas? To what extent is the weather of the surrounding area changed as air flows over the Lakes? How can a valid forecast for the water levels of the Lakes best be made? It looks like at last we may be in a position to answer these puzzlers from observations made by the department's recently-acquired research vessel.

The *Porte Dauphine*, a 400-ton, 125-gate vessel, is North America's largest Great Lakes research ship. She was purchased from the navy early in 1960 and is now being operated by D.O.T. for the Great Lakes Institute of the University of Toronto.

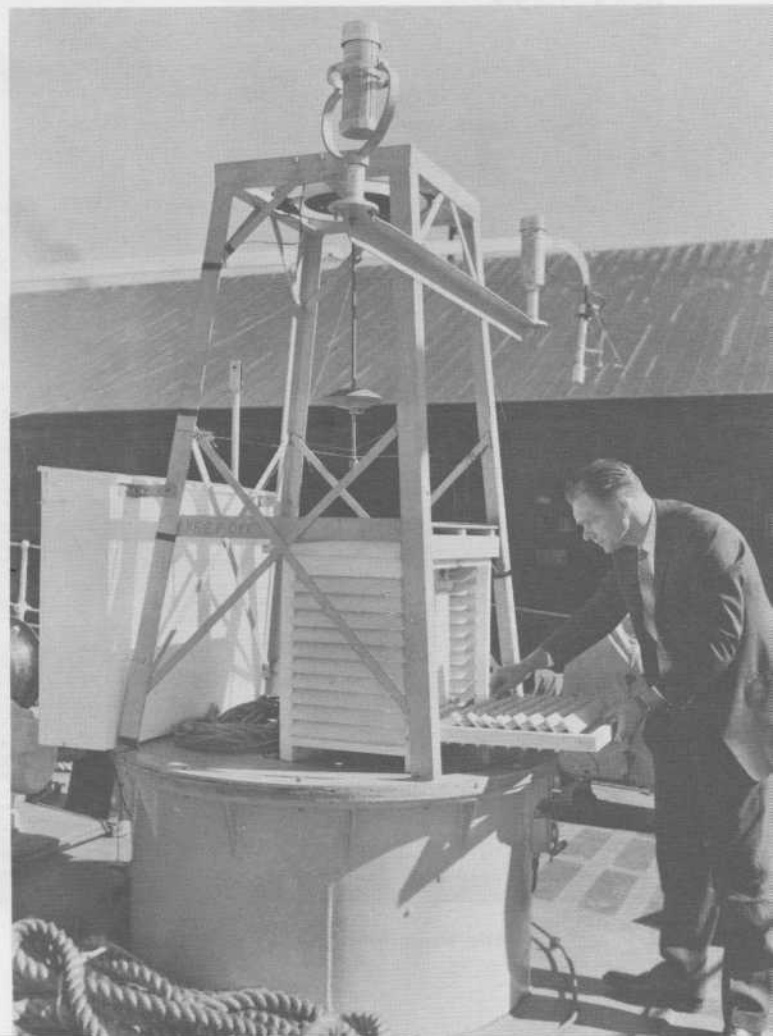
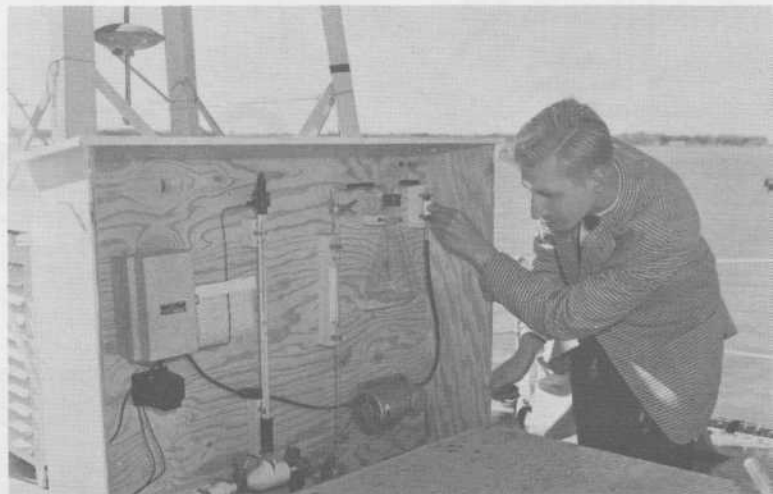
Equipped with three fully-instrumented laboratories, it is difficult to estimate what far-reaching benefits will be realized by year-round operation of the *Porte Dauphine*. When she is on cruise complete weather observations are provided every three hours. This information is of great value to forecasters in analyzing the weather in surrounding areas.

The meteorological branch is one of a number of agencies collaborating with the university on this program. Specifically, the hydrometeorological section is responsible for meteorological and climatological research, which means they are studying the effect the weather has on the Lakes and the effect the Lakes have on the weather.

**Top:** An instrument head, containing temperature, humidity and wind sensing units, is installed on the movable boom mounted at the bow of the *Porte Dauphine*.

**Centre:** Ozone count is taken by U. G. Lama, a student employed by the met. branch in summer. The ozone sampler, along with many other instruments, is installed on a former gun-mount.

**Bottom:** The author studies thermometers in a screen located on the forward deck. Some of the other instruments seen in this photo are a gimbal-mounted Eppleyrheliometer (top centre) and two standard rain-gauges (mounted on each end of a vertical bar at top of tower).

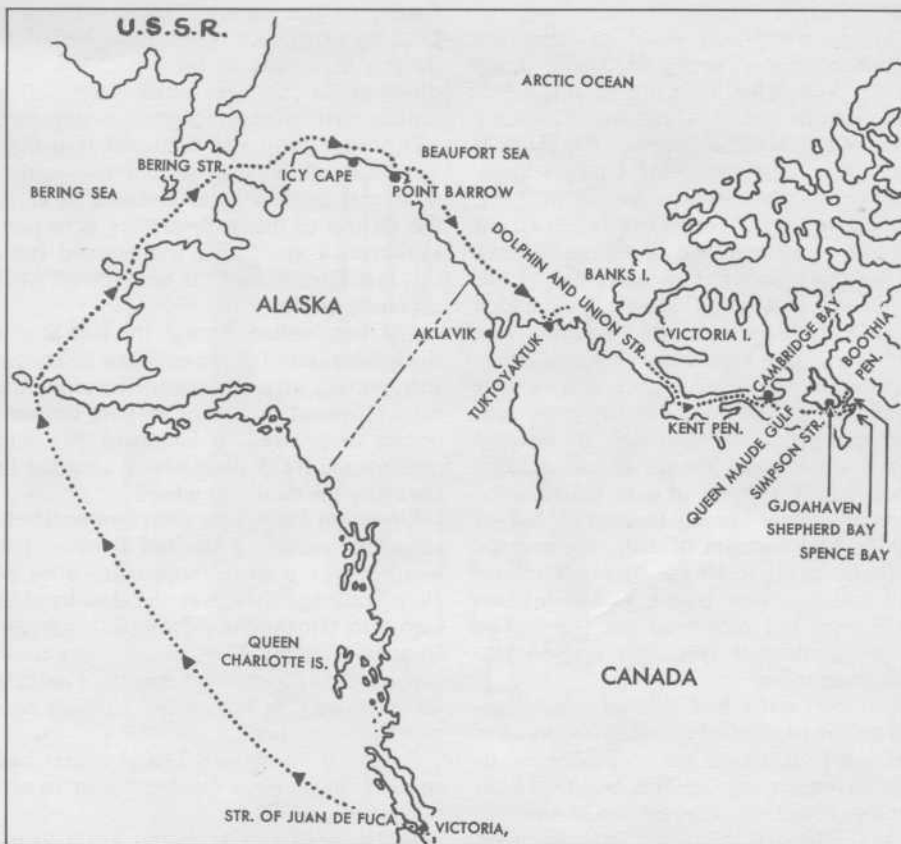


by Second Officer  
Peter Stocker

# Out and Back in 100



# Days



THE CMS *Camsell*, first Canadian ice-breaker to be built specifically for service in the Western Arctic, returned to home port on October 12 with entries in the first 100 pages of her brand new log-book.

She put out to sea from Victoria on July 5 and proceeded through Juan de Fuca Strait, northward to Point Barrow and Tuktoyaktuk (commonly referred to as "Tuk" for obvious reasons), and on to Shepherd Bay. Her duties clearly defined, the *Camsell's* 51 officers and crew members were anxious to put her through the paces.

We were proud to be aboard such a fine vessel. It is fitting that she should be named after Dr. Charles Camsell, one time Deputy Minister of Mines and Technical Surveys, who was one of the great explorers and geologists of the Canadian North West. Just as he did much to open up this area, it is hoped that the ship perpetuating his name will open up northern waters for transportation.

The first 'breaker built by Vancouver's Burrard Shipyard, the *Camsell* has the distinction of being different from the type of vessel used on the East Coast. Basically this difference lies in the shallower draft which allows more manoeuvrability in the waters she must navigate. Designed by Montreal naval architects Milne, Gilmore and German, she is 223 feet overall, with a 48 foot maximum beam. Her maximum draft is 16 feet. Four Fairbanks-Morse opposed piston diesel engines, which are controlled from the bridge, develop a total

5,000 hp, 4,250 of which is on the shafts. An added feature is the helicopter deck; the largest of any ship of the *Camsell's* size it was designed to enable the landing of supplies in shallow waters.

We met our first ice—quite appropriately—off Icy Cape on July 17 and spent the following days working our way through. By the 27th of the month we managed to get into clear water, close inshore, and proceeded to Point Barrow. We had to anchor offshore and wait for the wind to change to the south. Ice conditions in the area are dependent almost entirely upon the wind direction and force; northerly winds pack the ice into the shore, while southerly winds clear it away.

On August 1 the wind shifted to the south and late in the afternoon the 'copter did an ice recce (survey) up past the Point. According to the report the ice was loosening rapidly so it was decided that we would sail the next day. We kept well into the beach and worked along between the edge of the pack and the shorefast winter ice. Once past Barter Island we came into ice-free waters and encountered no more ice until our return voyage.

Our first job was to buoy the approach to Hat Island, as the ice had gone out early this year and we were bringing the supplies in ahead of schedule. The buoys, made of four oil drums welded together and painted in clearly visible fluorescent orange, are expendable since the ice sinks them every winter.

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Tricky navigation problems were encountered in this expedition. The area, the Queen Maude Gulf, is full of small, low lying islands and shoal patches, which are poor radar targets. However, the water is very clear and the color changes quite markedly with a change in depth.

After completing our work at Hat Island we journeyed eastward to Simpson Strait to lay more buoys. This area, too, is full of shoals and small islands. An added hazard is the current which, at the east end, sometimes reaches seven knots. Since this was our second such operation we were getting to be old hands at the game and everything went off smoothly. We lowered the hydrographic launch *Quail* at 0800 hours and it went ahead of us marking the positions where we were to drop the buoys. Within four minutes of dropping one the next was ready to let go. By noontime we had laid nine new buoys, picked up two 1959 ones and recovered the *Quail*. The steaming distance from the first to last was seven miles.

Our port screw had suffered some damage on the trip in to Point Barrow, so after clearing Etna Island we proceeded on to Gjoahaven for repairs. This beautiful little harbor, about six fathoms inside and five at the approach, had been recommended to us by Captain Shaw of the HBC *Banksland*.

We tried to ballast down the ship by the head in order to get the shaft out of water, but due to the hull shape of an icebreaker our attempts were unsuccessful. There was nothing else for us to do but carry on using only the starboard screw. Fortunately, this didn't slow us down too much as we can do nearly 10 knots on one wheel alone.

From Gjoahaven we backtracked to historic Todd Island (where some of the remains of Franklin's expedition were

found) to put up our first radar tower. Lacking experience, we naturally tried to do this according to the book. We went down about four feet in the sand before hitting permafrost and were then supposed to drill an additional eight feet into that. The heat of the drill melted the permafrost and small pebbles and bits of earth fell on top of the drill, causing it to jam. However, a great deal was learned from this first attempt and the next towers went up much quicker.

We then headed through the Rae Straits to Dundas Island at the entrance to Spence Bay, putting up two more towers along the way. It was at this point that we received orders to proceed to Shepherd Bay and pick up the RCN diving team to assist in changing the damaged wheel.

Upon our arrival the divers immediately set about removing the old flanges. The weather was poor, though, with a bit of chop running, so it was decided to shift across to Gjoahaven to complete the job. In approximately 37 working hours these capable divers completed the job of putting on the three new blades and we were seaworthy once more.

By now it was August 23 and orders had come through from Ottawa for us to sail for Victoria.

We stopped at Hat Island again to recover some of the buoys laid on our eastward trip, then on to Cambridge Bay to land the remainder of the buoys and rocks in readiness for next year. Incidentally, this was a larger settlement than we had expected to find and most of the residents—Northern Affairs and D.O.T. employees, nurses and teachers—came out to visit the ship. They were particularly pleased that a Canadian 'breaker was operating in waters previously opened up by the United States Coast Guard.

Leaving Cambridge Bay we were lucky to find a good lead to within 50 miles of Point Barrow, so we had only a few hours of breaking to do. However, the U.S. tug *Mohawk* was not quite so fortunate. Her wheel and rudder were badly damaged coming through from "Tuk" and at her request we stood by to perform escort duties to the south.

U.S.-Canadian relations reached a high point when we decided to speed things up by taking the *Mohawk* in tow. Instead of the four knots she had been able to muster under her own steam, we averaged nine knots towing her to Dutch Harbor. After a day spent taking on fresh water and giving the crew of the *Mohawk* a hand in changing her screw, we said goodbye and set out on the last leg of our voyage via Abutan Pass.

With her maiden voyage a thing of the past the *Camsell* steamed into home port for a well-deserved rest. But it won't be long before she will be out again, adding to her now-established record of accomplishments as the department's first and only Western Arctic icebreaker.

## YOU AND PROMOTION

*"The prime purpose of a promotion competition is not to reward an employee for past service but rather to select an employee for future service."*

That is only one of the many revelations found in a new booklet called "You and Promotion" just published by training and welfare.

The guide "tells all" and explains in detail how promotion competitions work. It contains chapters on a host of interesting subjects, including departmental policy, procedures, the interview, the rating guide and your right to appeal.

The booklet also contains an analysis of the Civil Service Commission's application form. Training and Welfare Chief Darrell DeBow points out that last minute substitution of the old form by a new one has resulted in such mismatched instructions as:

"9. SEX—

9. Check your arithmetic . . ."

In spite of such involuntary levity the 24-page booklet is crammed with useful information and the candidate who studies it diligently may well have an edge over those who do not take such trouble.

The book is available through the usual channels and may be ordered like a pencil or a pot of glue.

The method of rating candidates as explained in the book leaves little room for guess work, (except on the part of this reviewer). Here's how it goes.

"1. The mark obtained on the rating guide (called the fitness and efficiency factor) is divided by 10 and multiplied by 8.

2. The seniority factor is multiplied by two.

3. 1 and 2 above are added and divided by ten. The result is the candidate's final mark."

If you can follow this, you deserve a promotion!

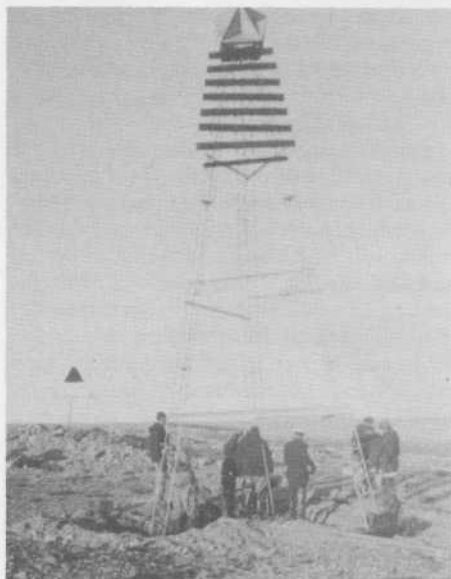
## IN MEMORIAM

HAROLD WESLEY STINSON, 65, officer in charge of the Ottawa aeradio station for 13 years before his retirement last summer, died at his home in Ottawa December 15.

Mr. Stinson, who was a veteran employee of the department and a pioneer of radio communications in Canada's Far North, is survived by his widow and five children.

AIMÉ MAURICE BRAIS, who joined the Prescott Agency of the Department of Marine and Fisheries in 1903, died at Parry Sound on November 27.

Mr. Brais opened the Parry Sound Marine Agency office in 1905 and remained there until his retirement. He is survived by his widow.



The *Camsell's* crew erect a radar tower on historic Todd Island.



Ottawa's airy waiting room creates an impression of warmth by using tones of browns and yellows. Two nine-foot *Ficus Exotica Benjamini* trees grow from planters at the focus of the area.

# Canada's "Family Room" — the airport terminal

by Stan White,

Architect, Construction Branch, Air Services

An airport waiting room is an enclosed space to wait for airplanes in, and a seat is something to sit on. The department has lately taken a closer look at the nature of both and, as host to millions of air travellers, has furnished and decorated waiting rooms that are recognized as ranking with the world's finest. An independent survey conducted at the entrances to the Gander, Halifax, Montreal and Ottawa terminal

waiting rooms might record reactions from travellers ranging from "Wow" to "Gosh" to "Holy smoke".

At its present stage of development, contemporary architecture (and with it, contemporary interior design) is international in character, with very few regional or national differences apparent between a building on the Canadian prairies and a building in London, England. The Canadian designer is at some pains to reflect his nationality without resorting to such embarrassingly self-conscious Canadiana as knotty pine panelling and rock maple

furniture—materials as available, incidentally, in California as in Quebec.

Somehow, however, a Canadian atmosphere *has* been generated in the aforementioned terminals. Perhaps it is the quiet restraint, or understatement, used in furnishing the airy waiting rooms. Or perhaps it is a simple faith in human nature, demonstrated by furnishing a public building with an elegance even Idlewild or the Termini di Roma does not risk. We assume that the public will use public property with discretion.

Gander, for instance, provides many

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A mural of stained glass panels, each depicting one of Canada's provinces, graces the entrance to the restaurant and lounge on the second floor of the new Montreal terminal.



The mural "Flight and its Allegories" is the focal point of the Gander waiting room. Travellers who have their first, and often only glimpse, of Canada during a stop-over here are impressed by it and other forms of art on display.

travellers with their first, and often their only glimpse of Canada. It suggests that, though he has been dropped (likely against his will) into one of the outposts of the world, his host, Canada, has assembled all its technical and aesthetic resources to accommodate him gracefully.

Seat-bound for many hours over the Atlantic, when he arrives at Gander the traveller is offered a galleried international waiting room, with generous spaces to walk about in. He may examine the mural "Flight and its Allegories", his children may ride the sculpture "Welcoming Birds", or his wife may examine the comprehensive display of (unselfconscious) Canadiana on the mezzanine.

The Halifax waiting room is high and cool. On a white terrazzo main floor, furniture upholstered in beige, blue, black and grey makes intricate patterns when seen from the mezzanine. Beige fibre glass curtains over some of the two-storey windows soften the crystalline effect of the glass-enclosed room.

Though of a similar size and design the Ottawa terminal creates an altogether different impression: where Halifax is cool and maritime, Ottawa is warm and rather domestic. Its colors are warm browns and yellows and tropical plants flourish in the ticket concourse. Two nine-foot *Ficus Exotica Benjaminii* trees grow from planters at the focus of the building.



Cool and maritime. When viewed from the mezzanine, the white terrazzo main floor at Halifax



The Montreal terminal, as befits a gateway to one of the world's most cosmopolitan cities, is more sophisticated. Its wall textures, color schemes and appointments invite comparison with any in the world. Montreal looks the best of all the terminals when occupied by people. Even without signs to guide them, the public reads in the reading room, writes in the writing room and waits in the waiting room. It is interesting to note that where the fashion photographers once set up shop in the Sheraton-Mount Royal Kon Tiki Room or the spacious lobbies of the Queen Elizabeth, they now move out to the terminal in their search for fashionable backgrounds.

"In a sense, new terminals are national parks", says one airport manager. It is certainly true that the Montreal, Halifax and Ottawa terminals are places of resort for the cities they serve. They rival the much talked about, written about "family room" of today. Boards of Trade hold meetings in their restaurants, small boys cycle out on Saturdays to harass the commissionaires, and families terminate their Sunday drives there. In Newfoundland, families have been known to take holidays at Gander—to ride the escalator. The high standards of design set by the buildings may have an effect on popular taste in their areas, as well as making a positive statement to the international traveller about the nature of Canada.



Department airport waiting rooms, like this one at Montreal, are recognized as ranking with the world's finest. The high standards of design tell the international traveller something about the nature of Canada.



combines with the beige, blue, black and grey furniture to make intricate patterns.



An ultra modern touch has been added to the new air terminal buildings through the extensive use of stainless steel and aluminum. In this view of the Halifax terminal these products have been used for door and window frames, stairway railings, furniture legs and cylindrical ashtrays.

HOW often have we uttered the words, "If only it could talk?" These are not just idle words when we think of the many lighthouses which dot our country's coastal and inland waterways. They have stood firm in remote nooks and crannies of Canada's terrain and observed the opening up and development of our vast country.

In a way, though, the lighthouses have talked. Through the diaries written by their keepers they have "told" of the French and British Vessels which entered the Gulf of St. Lawrence and made their way up the river to found settlements at Quebec and Montreal; they have "told" of Indian ambushes and wars fought between the newcomers; they have "told" of epidemics and harsh winters which wiped out whole communities; and they have "told", too, of happy events in the daily lives of people.

Navigation markers were placed in the St. Lawrence River for the guidance and protection of shipping as far back as the 1600's, but the first permanent lighthouse was built at historic Louisburg in 1731. By the end of the 18th century a number of stations were in service on the East Coast, including Sambro Island, constructed in 1758 to mark the entrance to Halifax harbor; Shelbourne harbor in 1788; and Partridge Island built at the entrance to Saint John harbor in 1791.

As settlement moved inland lights were established along the St. Lawrence and, later, in the Great Lakes. One of the earliest of these was constructed in 1809 at Green Island below Quebec. Eleven years later the first Lake Ontario lighthouse appeared at Gibraltar Point to mark the entrance to Toronto harbor. This old stone tower continued to show a light until a few years ago

and the structure still stands on Toronto Island as a link with the city's early history.

In 1833 Pelee Island carried the first light in Lake Erie to mark dangerous Pelee Shoal. Expansion into the other parts of the Great Lakes soon followed.

On the West Coast shipping was increasing and the need for navigation aids arose. The first lighthouses on the British Columbia coast were built in 1860 on Fisgard Island, at the entrance to Esquimalt harbor, and at Race Rocks, in the Strait of Juan de Fuca. After 100 years lights are still being exhibited from the original towers.

Many new lighthouses were constructed in the first half of the 19th century, but the years immediately following Confederation were the years of greatest activity. When the four provinces confederated in 1867 there were 198 lights and two fog whistles. Only 17 years later, in 1884, the number of marine aids had tripled to 569 lights and 36 fog alarms.

Wood was cheap and plentiful so most lighthouses of that period were of wooden construction. Several of these are still in service, but with the passing years they are being replaced by modern steel or concrete structures.

That first lighthouse at Louisburg consisted of a pyre of burning coal. From such a simple beginning the service has grown, until to-day, the Department of Transport operates 3,074 lights (not all of these are housed in conventional lighthouse structures), 426 fog signals, 1,342 light and sound signal buoys and over 10,000 unlighted buoys and other markers. This advance in numbers has been accompanied by a parallel advance in improved equipment. Electricity is now extensively used in navigation lights.



Port Arthur, Ont.



Port Colborne, Ont.



Brule Bank, Que.



Fisgard Island, B.C.



Sambro Island, N.S.



White Island, Que.

## Lighthouses: A Link With

by William Calladine, Harbors and

Where commercial power is not available, station generated electricity or batteries are employed. In the past 10 years the change from oil lamps has been accelerated and today there are over 2,000 electric lights in operation.

Along with these improvements in the light source, mechanical devices are now used to turn lights on and off and to automatically replace burnt out bulbs. If power line breakdowns occur due to storms or other causes, electric lights immediately switch over to emergency batteries until the power failure is corrected. All of these adjustments take place automatically and usually no interruption in the lights can be detected by ships at sea.

Guns and cannons sounded at regular intervals during fog or snow storms were among the earliest fog signals. About 100 years ago there was an interesting arrangement at Halifax where the Royal Artillery signalled ships. The signal station was maintained at nearby Sambro Island and consisted of a non-commissioned officer and four gunners with a battery of four guns. These were fired in answer to gun shots from vessels approaching the harbor in thick weather and were of great service to shipping entering Halifax. Though no longer in use, old cannons and stone powder houses can still be seen decorating the grounds of some of the older lighthouses. These cannons fired three pound charges and during the navigation season an individual station might consume from 1,000 to 3,000 pounds of gunpowder depending on fog conditions.

Hand and mechanical bells were also commonly used as fog signals in the early days, but in time guns and most bells gave way to steam whistles. The whistles, heard

from four to 10 miles at sea, required a great deal of coal and a plentiful water supply. By 1885 no new installations of this type were being made and eventually they were all replaced by diaphones using compressed air instead of steam. The diaphone, which gives a distinctive signal at a distance of at least three or four miles, is operated by electric or diesel engines and air compressors. It is now widely used at major fog alarm stations in Canada.

Special attention is given to the testing and development of improved lighthouse apparatus and research in optics and acoustics is continually carried on in close co-operation with National Research Council scientists. As improvements are perfected and prove their reliability they are adopted for service in the field. Mention has already been made of the wide use

of automatic lights throughout the country and experimentation has been going on for some time with various types of microwave equipment for the remote control of fog alarms.

Radio beacons have been added to many lighthouses over the past 30 years. The application of radio and electronics to the needs of mariners has resulted in the development of a variety of other modern navigational aids, both ashore and on ships, and these new aids have made a tremendous contribution to safety at sea. However, numerous requests for lights and fog alarms are still received from marine interests and there seems little doubt that lighthouses will continue to play an important role in Canada and along the shipping lanes of the world for many years to come.

## 100 Years of Faithful Service

Race Rocks lighthouse, which guards the entrance to Esquimalt naval base, is 100 years old. In operation since December, 1860, the beacon is credited with providing protection for a countless number of vessels during its lengthy service. (Only one other Pacific Coast lighthouse, that at Fisgard Island, is of equal age and it was recently declared a national historic site.)

To commemorate the fact that Race Rocks passed the century mark the RCN placed a large bronze plaque on the lighthouse on Boxing Day, 1960.

*It reads: "1860-1960. Presented to the Race Rocks lighthouse 26 December, 1960, by the Pacific Command of the Royal Canadian Navy upon completion of one hundred years of faithfully marking the final approaches to a safe haven in Esquimalt—home port for ships of the Royal Navy and Royal Canadian Navy."*

Among those taking part in the presentation were Keith Dixon, marine agent; Gordon Odium, lighthouse keeper; Commodore John Deane; and Lt.-Cmdr. Harold Shergold, who represented the Pacific Coast flag officer.

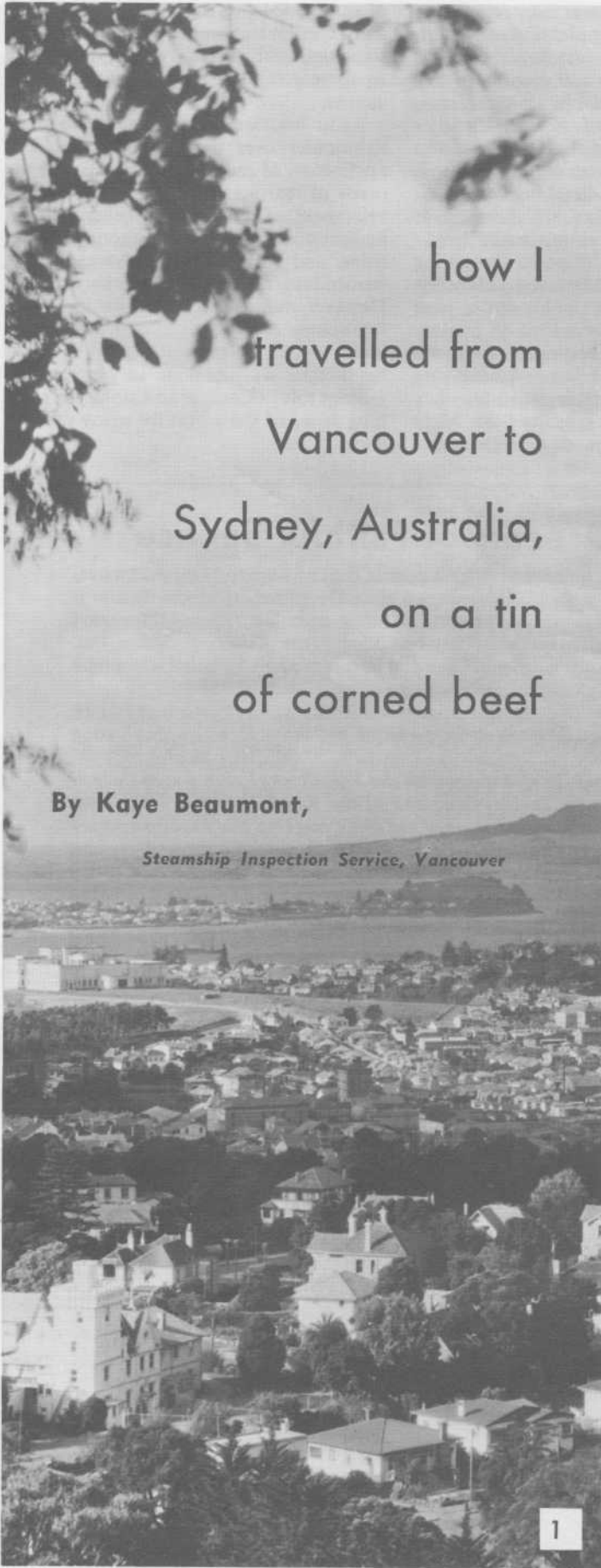


## h Canada's Past

d Property Division



Cape Bonavista, Nfld.



how I  
travelled from  
Vancouver to  
Sydney, Australia,  
on a tin  
of corned beef

By Kaye Beaumont,

*Steamship Inspection Service, Vancouver*

"Hi, Mom. There's a number for you to phone. Something about a Boston cream pie contest!"

This was how my 18-year-old son greeted me from beneath his old Morris convertible when I arrived home from the office one evening last August.

Boston cream pie? Could he mean Boston Canning Company, I wondered. It would be just like a growing boy to think of cream pie when he hears the word "Boston".

Then it struck me. Had I won the contest describing the versatility of a certain company's corned beef loaf?

My knees shook as I dialed the number. When a voice at the other end informed me that I had won the "Adventures in Paradise" trip to Sydney, Australia—a seven-week journey for two from Vancouver aboard the luxury liner SS *Mariposa*—I had no doubt about who would accompany me. My friend Gladys had spent an entire evening helping me fill out blanks and it had been agreed that if I won she would come along.

The weeks preceding our September 26 sailing date were a flurry of excitement. Not until we walked up the gangplank did we realize that we were actually going on a trip to the "ports of paradise".

Life aboard a luxury liner is truly luxurious. For seven weeks we were pampered with delicious meals, afternoon tea, and morning sherbet or hot consommé, depending on the weather. This luxury extended to finger bowls, even at breakfast, and breakfast in bed for those who wished it.

We saw and did so many things during those exciting weeks that it is difficult to know just where to begin.

After leaving San Francisco our first glimpse of land in more than a week came on October 11 when we sighted Papeete (known as Little Paris), a rambling town of narrow streets and balconied frame buildings. Although we nearly wilted with the heat during our stay there, we left nothing undone. A pub crawl on the first night took us to the famous Quinn's Hut at the Royal Tahitian Hotel and, later, to Hotel Lafayette, which doesn't open its doors until after all the other night spots have closed.

Paradise was never closer than when we journeyed to Moorea, the island said to be James Michener's Bali'hai. As we watched natives prepare the tamaara feast in our honor we fell under the spell of this "Garden of Eden".

Tantalizing smells escaped from the outdoor oven as a variety of exotic dishes cooked. When all was ready the oven was opened with much ceremony and the steaming leaf pads carefully removed from the vegetables and suckling pigs. These we ate along with Tahitian poi (raw fish marinated in lime juice) and other delicacies. Dessert was wedges of grapefruit, pineapple and papaya served on wood splinters stuck into ripe pineapples.

1. View over the city of Auckland, looking towards Rangitoto Island. In the background an extinct volcano rises over Waitemata Harbor.

2. The author meets the people who made the dream voyage a reality. Representatives of Matson Steamship Lines (left) show her the course the SS *Mariposa* will follow, while Boston Canning Company Agent Spear (right) looks on.

3. Tahitian women on the island of Moorea perform a ceremonial dance prior to the tamaara feast.

4. High Talking Chief and his young granddaughter were two interesting persons met at Pago Pago in American Samoa.

5. Steaming into Sydney Harbor, the *Mariposa's* passengers enjoyed a wonderful view of the famous Sydney Bridge with its sweeping arch and six lanes of traffic.

Leaving Moorea we sailed southward to Rarotonga and on to Auckland. Our two days in New Zealand were perhaps among the most interesting of the whole trip. Buses took us from Auckland to visit glow worm caves at Waitomo and a Maori village at Rotorua.

Our guide in the village wore a bright red costume, complete with large feather in her hair and red umbrella. She had a natural dignity as she showed us through the village and briefed us in perfect English on the customs of her people.

Several days later when entering the lovely harbor at Sydney, Australia, we could see people sunbathing on famous Bondi Beach and, further off in the distance, the famous Sydney Bridge with its huge arch and six lanes of traffic.

Again, we did all the things a tourist should do. We boarded a double decker bus, journeyed to the beaches beyond the city limits and visited the zoo, before embarking on the homeward portion of our trip.

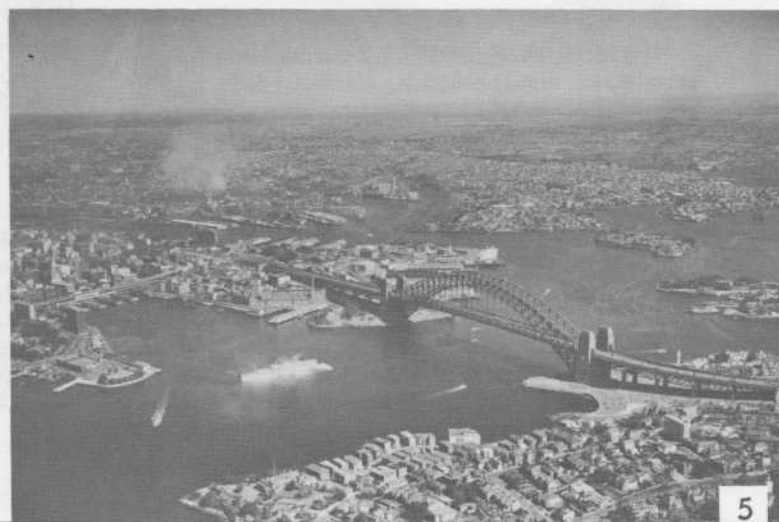
In Suva, "port of paradise" where we stayed less than a day, we took pictures, toured a native village, sampled sugar cane from the field and drank fresh cocoanut milk from the shell. Caught in a tropical cloudburst that afternoon, we were most amused to see the young school boys place their books on top of their heads and walk, quite nonchalantly, naked in the rain.

Pago-Pago (pronounced "Pango-Pango") in American Samoa was next on our itinerary. The heat was almost unbearable, but we were determined that it would not interfere with our activities, so we sat under a temporary shelter of palm leaves and ferns and watched native boys perform, in turn, the Royal Ava ceremony, the Samoan war dance and the knife and axe dances, as well as fire making and basket weaving contests.

Honolulu was our last call at a "port of paradise" and we made the most of it by dining at the Hawaiian Village Hotel and the Golden Dragon, journeying to Waikiki Beach to see the Royal Hawaiian dancers, and by watching marines perform an intricate precision drill.

It was with mixed feelings that we saw our dream voyage draw to close as we neared San Francisco. I can tell you one thing, though, neither Gladys nor I will ever pass a tin of Boston corned beef loaf on a super market shelf without remembering colorful native dances, the soft strains of a guitar being played in the moonlight, or the gentle lapping of the ocean water on a ship's prow.

But I've spent so much time telling you about our visit to the south seas, that I'm afraid if I don't hurry I will miss mailing the "reasons why I use only sudsy wudsy wonder cleaner in my home" before the 12:00 a.m. deadline!



# Calling It A Day

Three D.O.T. men retire after a total of 122 years of service



**HARRIS BRANNEN**

A distinguished career in the service of the radio branch, extending back 45 years, came to a close when Harris H. Brannen, regional superintendent, radio

regulations, retired on November 21.

Mr. Brannen received his first training as a radio operator in 1912 with the Canadian Marconi Company on Sable Island. He enlisted in the Royal Canadian Navy and until the end of the First World War served as a warrant officer telegraphist on patrol boats and minesweepers.

In 1918 he took a post as radio operator at the federal government finding station on Sable Island. He subsequently served at Chebucto Head, Yarmouth and, from 1926 to 1948, Saint John.

In 1948 Mr. Brannen was promoted to assistant to the superintendent of radio at Halifax, where he remained until being appoin-

ted regional superintendent of radio regulations at Moncton.

Mr. Brannen was honoured by his associates from throughout the Maritime region on November 18, when he was presented with a suitable gift by J. A. Lenahan, regional director, air services.



**AILWYN AVELING**

When "Al" Aveling retired from radio regulations, Hamilton, on November 15 friends and co-workers gathered to honor him.

A desk and purse of money were presented to him, while Mrs. Aveling received a corsage.

A native of Peterborough, England, Mr. Aveling joined the Department of Marine and Fisheries as a radio operator in 1925 and was posted, first, to Cape Race, and then to Chebucto Head. In 1927 when the inductive interference section was formed he was appoin-

ted a radio inspector in charge of the then new Kitchener field office. Subsequently he was in charge of the London field office for eight years and then went to Hamilton, where he remained until his retirement.



**EDWIN C. VIRGO**

Recently-retired agency storeman Edwin Virgo is busily working out an itinerary for the European holiday he and Mrs. Virgo plan to take this summer.

Retiring after 42 years with the department, he was presented with an electric sanding machine and a wrist watch by his co-workers of the Parry Sound agency staff. The farewell party was a big success. Several retired members, along with officers from the agency vessels, joined in wishing Mr. Virgo well. The Mayor of Parry Sound, Mrs. Agnes Wing, who was a special guest, presented a bouquet of roses to Mrs. Virgo.

## How To Turn Sense Into Dollars

*"No one knows what he can do until he tries," said a Greek philosopher. Have you tried to put a time saving, money saving idea into the form of a written suggestion for the approval of the suggestion award committee? Seven D.O.T. employees submitted acceptable ideas which were recently turned into cash or merchandise. Why not follow their example and turn sense into dollars?*

### *Saves Work—Gets \$45*

MAHMOOD E. WAHAB, superintendent of purchases in the administration branch, Ottawa, was awarded \$45.00 for suggesting that only the three lowest tenders be listed in detail on government motor vehicle committee forms.

### *Wins \$30 For Design of Form*

MISS MURIEL G. ROWAT, a clerk in the economics policy branch, Ottawa, designed a new traffic flow statistical form to standardize the checking of incoming airport statistics. Since this has resulted in substantial savings in work, as well as improvements in the quality of the reports, Miss Rowat received a \$30.00 cash award.

### *Eliminates Costly Calls—Gets \$26*

WILLIAM G. LEWIS, a meteorologist at Trenton, Ont., won \$26.00 for his idea to eliminate daily long distance phone calls

from the Uplands (Ottawa) RCAF Station DAFO to Atomic Energy of Canada at Chalk River. He recommended that 36-hour area weather forecasts can be obtained by phoning Petawawa, which receives same information from Malton F.O.

### *Receives \$25 For Suggesting Leave Credit Form*

ROGER LEMIEUX, an accountant in the St. Lawrence Ship Channel division, Montreal, won \$25.00 for his suggestion that a form be adopted to record all employee leave credits.

### *Credit Card Idea Saves Round Trip*

Radio operator KENNETH D. WOODS of the Killaloe radio range station chose a bathroom scale as his award for suggesting that the convenience of a gas station be considered when allocating oil company credit cards. Acceptance of this idea eliminated a regular 24-mile round trip to

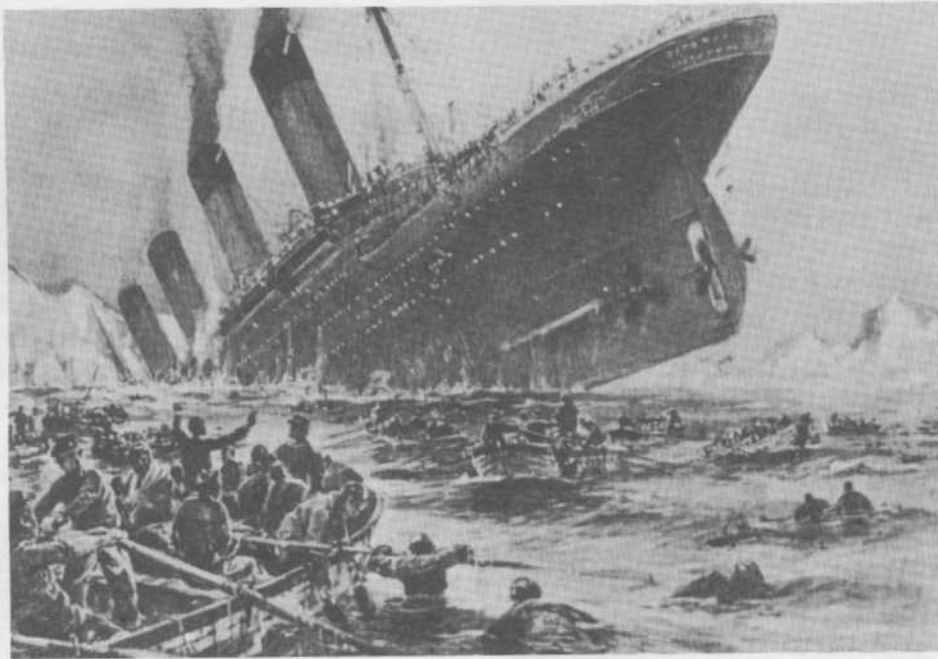
buy gas for the Sudbury airport radio range station truck.

### *Rejected Idea Reveals Gap*

RAYMOND G. GIESINGER, a radio operator learner at the Regina aeradio station, received an alarm clock for suggesting a revision in the method of reporting cloud types and amounts in aviation weather reports. Although his suggestion was not adopted, it did reveal that the appropriate manuals lacked examples of how weather reports should be transmitted and the manuals were subsequently altered.

### *Points Out Absence of Safety*

MARCEL L. LEVESQUE of the maintenance and operation division, telecommunications and electronics branch, Ottawa, received an electric alarm clock for urging that fire exit signs, painted over some months before, be put up again in No. 3 temporary building.



Series of international conferences on safety at sea were direct result of 1912 Titanic disaster. Scene depicted here was painted by German artist from descriptions of survivors.

# Safety At Sea – 50 Years Later

By Alan Cumyn

Director, Marine Regulations Branch

(Mr. Cumyn was head of the Canadian delegation to the Fourth International Conference on the Safety of Life at Sea.)

**"This must not happen again!"**

That was how the world felt after the *Titanic* disaster of April 15, 1912.

Why did the *Titanic* sink? Didn't she have 15 watertight bulkheads and a number of watertight doors, making her virtually unsinkable?

Why were only 703 people rescued out of a total of more than 2,200 aboard? Didn't the proud liner carry 14 lifeboats, two emergency boats and four Englehardt boats?

A court of inquiry sat for 36 days and listened to the testimony of survivors, ranging from officers and first-class passengers to firemen, stokers and look-out-men.

The court's findings all pointed up to one frightening thing: it **COULD** happen again! The vessel's safety equipment, the way she was built and the behavior of captain, officers and crew were all within the rules and regulations of the British merchant shipping acts in force at the time.

(continued on next page)

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The ship's speed when she struck the iceberg was found to be excessive, but it was perfectly all right that her life and emergency boats had a total carrying capacity of only 1,178 persons, not much more than half the number of people aboard.

It was then, while 1,513 of the Titanic's passengers and crew were being mourned, that the government of the United Kingdom decided to invite all seafaring nations to London to see what could be done to prevent future disasters at sea.

In the winter of 1913-14, representatives of 13 governments met for the first International Conference on the Safety of Life at Sea. They drew up an agreement called the International Convention for the Safety of Life at Sea,\* but because of the outbreak of the First Great War in 1914 it never came into effect.

Nevertheless, it greatly influenced ship design and construction and the provision of safety equipment. Many useful measures were adopted, including the establishment of the International Ice Patrol.

In 1929 the UK government convened a second conference, which adopted a revised convention, while a third conference, also convened by Britain, drew up a new and greatly strengthened convention in 1949.

Attendance at the conferences rose from the original 13 countries to 18 in 1929 to 30 in 1948. A total of 35 governments ratified the 1929 convention. The one drawn up in 1948 was ratified by no fewer than 52 governments and has been in force since 1952.

\*The terminology here is confusing to the uninitiated. As is often the case in international meetings, the actual gathering was called the conference, the agreement they drew up was called the convention.

So much technical progress has been made since that a fourth International conference on the Safety of Life at Sea was called in London last year to revise the 1952 convention.

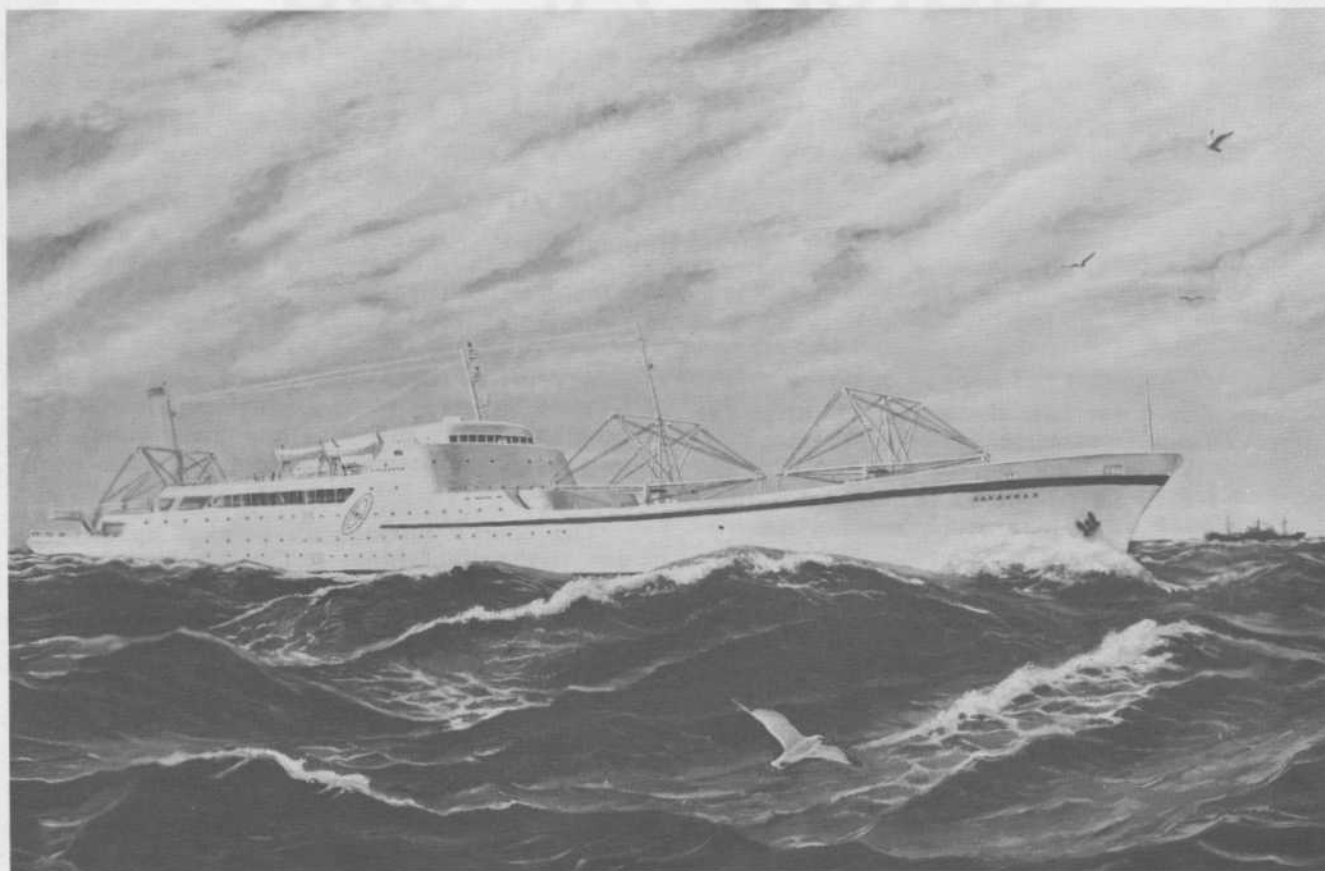
This time the convener was the Intergovernmental Maritime Consultative Organization, a specialized United Nations agency created in 1959.

The fourth conference met in London, England, from May 17 to June 17, 1960, and was attended by delegations from 45 governments, while 10 countries sent non-voting observers.

The Canadian delegation consisted of 11 officers of the Department of Transport and one each of the External Affairs Department, Atomic Energy of Canada Limited and the National Research Council.

The Canadian Shipowners Association, the Dominion Marine Association and the Shipping Federation of Canada each sent one adviser.

The D.O.T. delegates, besides this writer, were R. R. Macgillivray, the department's assistant counsel and alternate head of the delegation; R. G. Boomer, divisional supervisor, steamship inspection service, Vancouver; V. J. R. Brister, regional superintendent of radio regulations, Winnipeg; H. O. Buchanan, senior steamship inspector; Capt. G. W. R. Graves, acting assistant chief, nautical division; Capt. W. E. Harrison, superintendent of nautical safety; R. O. Hewitt of the telecommunications branch; J. H. Kay, principal inspector of machinery; Capt. W. S. G. Morrison, principal examiner of masters and mates; and M. F. Munro, chief of the hulls and equipment division.





The Canadian delegation went to London with a full set of instructions, and as it was large enough to be represented on all technical committees at all times, it was able to achieve all its main objectives.

The conference adopted two Canadian proposals that were very important to Canadian shipping. Both dealt with navigation on the Great Lakes.

Under the present convention ships solely navigating the Lakes don't have to comply in full with the convention as long as they are on international voyages not extending farther east than Montreal. The Canadian amendment which was adopted extends this area to Anticosti Island, which is the eastern limit of our inland waters.

The other Canadian amendment permits Canada to require foreign ships to carry radio-telephone equipment in the Canadian waters of the Great Lakes and the St. Lawrence River above Montreal. This in effect means that in this case the 1952 agreement between Canada and the U.S. relating to the use of radio on the Great Lakes will apply in lieu of the London convention.

Another Canadian proposal adopted by the conference requires cargo ships measuring more than 5,000 gross tons to have an emergency source of electrical power. Other nations wanted this regulation extended to vessels of much smaller tonnage—some favored 500 tons as the lower limit—but we strongly opposed this as exceeding the bounds of "practical safety" and imposing an undue financial burden on shipowners.

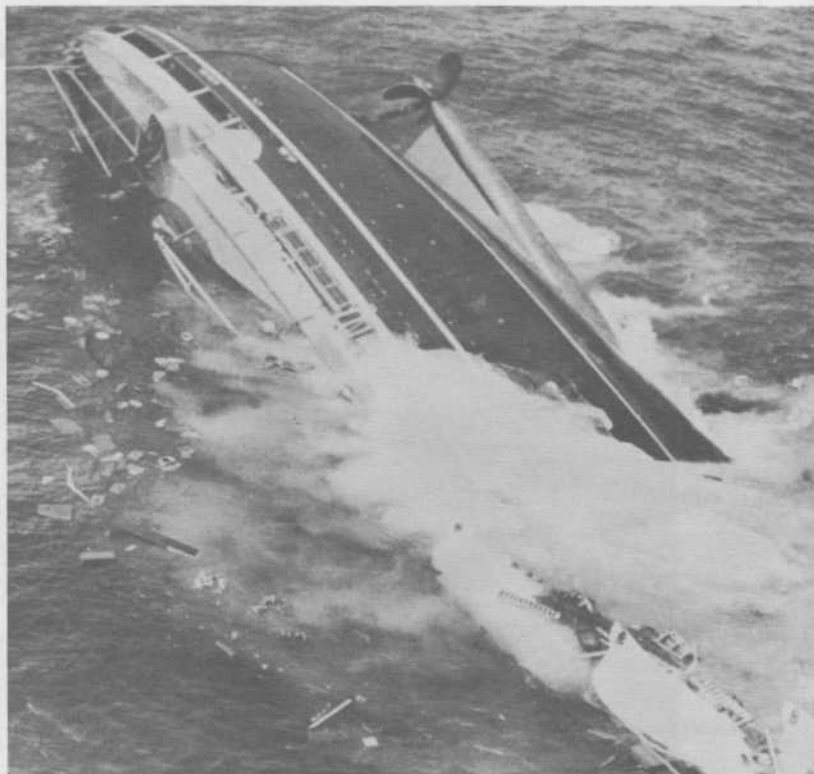
One of the main purposes of the conference was to bring the various requirements in line with recent technical developments. It adopted, for example, modernized specifications for lifejackets closely resembling those approved by the department for small boats in Canada.

Other measures reflecting progress include:

- revisions in fire protection and extinction regulations, taking into account new methods and materials;
- the acceptance of inflatable liferafts, prohibited under the present convention;
- recommendations on the use of radar as an aid to avoiding collisions;
- more modern rules for the carriage of grain, replacing requirements outmoded by modern ship construction;
- expansion of the dangerous goods regulations and inclusion of a provision for carrying radio-active materials.

The conference adopted an entirely new chapter on the safety of nuclear-powered ships. At the outset of the conference only the U.S. was known to be in favor of including such a chapter, but at the last minute the U.K. delegation rallied behind the U.S.

The Soviet Union objected to one regulation, which forces the flag country of a visiting nuclear ship to make available to the host country a safety assessment with details of its design, reactor, radiation protection, fuelling, etc. The USSR argued that the



Sinking of Italian liner *Andrea Doria* after collision with *Stockholm* in 1956 prompted U.S. to press for compulsory lane routes in converging areas of Atlantic.

host country should, as in the case of conventional ships, be satisfied with the safety certificate issued by the flag country.

We noted that the final American proposal left host countries a wide latitude in deciding under what conditions a nuclear-powered ship can enter their ports and voted with the Americans. Before doing so, however, we stated that in our opinion the regulations do not in any way restrict the sovereign right of any state to exclude nuclear ships from or restrict their movements in its waters and that it was on the basis of this interpretation that we voted for adoption of the regulations.

The U.K. and U.S. delegations went on record as agreeing with this interpretation.

Prompted apparently by public opinion following the sinking of the Italian liner *Andrea Doria* after it collided with the Swedish liner *Stockholm* off Nantucket Island, Mass., in July 1956, the U.S. pressed strongly for the introduction of lane routes in those areas of the North Atlantic where steamer tracks converge, and for compulsory adherence to those routes by all ships.

The U.K. vehemently opposed this as impractical and interfering with the inalienable right of the shipmaster to select his own route. We supported the British attitude.

The issue was hard fought and resulted in one of the few votes taken in the Navigation Committee.

The introduction of such routes was finally adopted but any suggestion of compulsory adherence was removed.

The new convention will come into force 12 months after it has been ratified by 15 governments, including seven countries each with not less than 1,000,000 tons of shipping. Canada will probably become a signatory to the convention.

**Opposite:**

Advent of nuclear-powered ships resulted in entirely new chapter in convention. Shown is world's first nuclear-powered passenger-cargo ship, *N. S. Savannah*, being built at New Jersey shipyard.

# DOT'S INTERESTING!



## Take Fire Fighting Course

Marine regulations branch officials believe that staff members should be thoroughly versed in all aspects of their duties. Since they are called upon to dis-

cuss firefighting equipment and techniques with ships' personnel, it is important that they understand the hazards involved.

Two inspectors from the Halifax office of

the steamship inspection service were among those taking part in this fire control exercise at a recent nuclear biological chemical damage control course at HMCS *Stadacona*.

## TV FEATURES ATC

The department's air services, and the intricacies of air traffic control in particular, will be the subject of a one-hour television documentary to be transmitted over the CBC network towards the end of April.

Entitled "The Crowded Sky", the show will be part of the "Camera Canada" series. The production will be built around a flight from Montreal to Toronto.

## HEADS UN COMMISSION

Clarence C. Boughner, chief of the climatology division, meteorological branch, was elected president of the World Meteorological Organization's (WMO) commission for climatology at its session in London, England, recently.

The commission is one of eight technical commissions of the WMO, itself a specialized agency of the United Nations Organization.

Mr. Boughner, who was Canada's principal delegate at the session, will hold office

for four years; for the past four years he has been vice-president.

A 1933 graduate in honor mathematics and physics from the University of Toronto, Mr. Boughner received his master's degree in meteorology in 1934. The same year he joined the met. service as assistant to the chief climatologist and was appointed to his present position in 1950.

## MARINE SERVICE OFFICIALS MEET

Senior field officers of marine services came to Ottawa recently to meet with headquarters officials. During the four days of conferences, the group discussed the recent reorganization of marine services headquarters and reviewed plans and problems relating to operations.

Among those who attended the sessions were: H. L. Land, Chief, St. Lawrence Ship Channel; District Marine Agents J. N. Ballinger, Halifax; R. E. Stone, St. John's; F. A. McKinnon, St. John; Capt. G. E. Gaudreau, Quebec City; J. S.

Barrick, Prescott; F. K. McKean, Parry Sound; Capt. James Goodwin, Fort Smith; K. Dixon, Victoria; and Capt. E. E. Ormsby, Prince Rupert; District Engineer N. Paquette, Sorel; Superintendent of Lights F. G. Osborne, Charlottetown; Superintending Engineers W. N. Bennett, Peterborough and Trent canals, L. W. Clark, Ottawa, Rideau and Nova Scotia canals, and J. Morin, Montreal and Quebec canals; and Capt. R. W. Forbes, Port Arthur sub-agent.

## APPOINTED REGIONAL SUPERINTENDENT

The appointment of Charles M. Williams as regional superintendent of radio regulations for the Atlantic provinces has been announced. He replaced Harris Brannen, who retired on November 21.

A native of Wales, Mr. Williams joined the department in 1928 after several years' service as a radio officer with the Canadian Marconi Company. During the next 22 years he served as officer in charge at many D.O.T. radio stations including Cape

Hopes Advance, Nottingham Island, Stupid's Bay, Cape Race, Camperdown, Chebucto and Albro Lake. In 1950 he was appointed radio inspector at Halifax, where he remained until he was transferred to Moncton in 1956 as regional radio inspector.

Mr. Williams is married and has two sons.

## MET. DIRECTOR ON WHIRLWIND TOUR

Canada's no. 1 weatherman went on a whirlwind tour of 30 stations across Canada to tell weather personnel of their sunny future under a new career plan. The plan has been designed to enable met. professionals to specialize and get further faster.

P. D. McTaggart-Cowan, director of the meteorological branch, left Toronto February 13 on a trip that took him as far west as Whitehorse, as far north as Frobisher Bay and as far east as Gander. He returned to his Toronto office March 27.

The hurricane tour called for meetings with each and every meteorologist, meteorological officer and met. technician at each station visited. He was at each station for an average of 24 hours only and scheduled meetings for every available minute of every available day.

A typical day (March 23) called for getting up at Halifax around 4.00 a.m. to catch the 5.10 a.m. flight to Gander. Arriving at Gander at 10.15 a.m., the director held discussions with the staff right through till 10 o'clock that night.

## NEW WEATHER OFFICE OPENED

The Truro weather office went into operation on November 8. The 28-foot square building, a modern bungalow structure (see cut) located at 9 Vimy Road, replaces the old Debert weather station.

Explaining the change in location, D. C. Archibald, chief of the basic weather division, Toronto, said that the office could better serve the interests of agriculture, transportation, forestry, fishing, utilities and the general public by being located at Truro. This was particularly so in view of the limited flying activity at Debert.

The new office is connected to one of the special weather teletype circuits which carry traffic between Montreal and the Maritime provinces. Its staff includes Ron Graham, weather officer-in-charge and Rupert Troop and Ron MacKenzie, met. technicians.

## OVER 1,100 RECEIVE 25-YEAR PINS

Men and women, numbering approximately 1,100, who have completed 25 years of service with the Department of Transport, received attractively designed gold lapel pins or brooches, along with an appropriate scroll, in recognition of their long service.

The pin, designed to depict four important departmental services—air, marine, telecommunications and canals—is gold with a blue enamelled border.

The initial awards, which took place during February and March, were made to all employees, both active and retired, who had passed the 25-year milestone at some time in the past. From now on each award will take place on individual 25th anniversary dates.



## SHIPS' COOKS AND STEWARDS "GO BACK TO SCHOOL"

The second in a series of courses designed for ships' crews got under way at HMCS *Hochelega* early in January.

The two seven-week training courses, one English and one French, have been held to stress efficiency and economy in the purchasing, storing and preparation of ships' foodstuffs.

Under the supervision of navy personnel, D.O.T. ships' cooks and stewards studied general cookery, galley work schedules, nutrition, sanitation, dining room operation, wardroom organization, inspection and accounting of stores.

Taking the English course during January and February were: Chief Stewards J. L. Campbell, CMS *Edward Cornwallis*, Dartmouth; G. W. Kuhn, CMS *Sir William Alexander*, Dartmouth; W. J. Grant, CMS *Wolfe*, Halifax; C. H. Tanner, CMS *Labrador*, Halifax; W. J. Hooke, CMS *Tupper*, Charlottetown; A. E. Malkin, CMS *Simon Fraser*, Victoria; and R. Munro, CMS *Estevan*, Victoria. Chief

cooks in attendance were A. R. Bennett, CMS *Sir William Alexander*, Dartmouth, and C. Ferguson, CMS *Saurel*, Charlotte, town.

French course, February 27—April 17: Chief Stewards C. Falardeau, CMS *d'Iberville*, Levis; E. Theberge, CMS *Montmorency*, Quebec City; J. Fortin, CMS *N. B. McLean*, Les Saules; Xavier Langlois, CMS *Chesterfield*, Lauzon; L. L. Moreau, CMS *C. D. Howe*, Lauzon; L. Salvat, CMS *Ville Marie*, Sorel; A. Lafond, CMS *Detector*, St. Joseph de Sorel; P. Lamoureux, CMS *Safeguarder*, Tracy, Quebec. Chief Cooks, who took part in the French course included: Y. Guay, CMS *d'Iberville*, Lauzon; G. Vezina, CMS *C. D. Howe*, Le Bellechasse; L. Defuant, CMS *Montcalm*, Quebec City; M. Guy, CMS *Beauport*, Cap de la Madeleine; M. Valois, CMS *Ville Marie*, St. Ignace de Loyola; L. Lavallee, CMS *Frontenac*, Sorel; and Second Cook F. Hunter, CMS *C. D. Howe*, L'Islet.





Left: Casting a whistle valve for a buoy. Prescott employees (left to right) Gerald Kennedy, Frank Cipra and Donald Smith pour melted brass from a red-hot crucible into molds. This job requires proper timing and a keen awareness of safety procedures. (The men are protected by steel-capped shoes and asbestos leggings and gloves.)



Bottom: The paint shop at the Prescott Marine Agency is a fascinating place in January when all the lanterns are lined up for their annual coat of paint. In cheerful colors of red and green they look like gay Christmas tree ornaments and it doesn't take much imagination to mistake Harry Cassels, complete with beard, for one of Santa's industrious workers. (see page 2)

