THE CROWSNEST



Vol. 17, No 6.

Message from The Honourable Paul Hellyer Minister of National Defence

and

The Honourable Léo Cadieux Associate Minister of National Defence

THIS FALL a new publication, the Canadian Forces Sentinel, will appear on the Canadian military scene. It will be an informative, well-illustrated periodical which will assume many of the functions long performed by The Crowsnest, Canadian Army Journal and Roundel, and it will be produced in English and French.

In addition to combining what has been best in these publications, it will offer a wider view of the objectives, functions and activities of the Canadian Forces than has previously been possible. In short, it will be a reflection of Canada's fresh, new approach to defence matters and the vital place of the military in the life of the country.

We would be remiss if we allowed the three present publications to pass into history without some recognition of their importance to the services and the country at large. Thanks to the loyal support they have received from their readers (who were also in many cases their writers) and the efforts of their editorial boards and staffs, *The Crowsnest*, *Canadian Army Journal* and *Roundel* have provided a valuable record of the services for more than half a generation.

The careers of these fine publications cannot be said to be ending since what is best in them will be incorporated in The *Sentinel* and their influence will persist for years to come, to the enduring benefit of our armed forces and Canada.

*CROWSNEST

Vol. 17 No. 6

THE ROYAL CANADIAN NAVY'S MAGAZINE

JUNE 1965

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The Cover—Daylight is waning as a Tracker aircraft takes off from the Bonaventure on a late afternoon mission. The photograph was taken off the coast of Scotland in October 1963. (HS-73100-209)

GOOD-BYE

The Crowsnest, founded in November 1948 as a monthly magazine, herewith appears for the last time. A letter in August 1948 that announced the forthcoming publication of the magazine said that its purpose would be "to provide unclassified material of news, information and, to some extent, entertainment value as a broad contribution to the internal morale of the Royal Canadian Navy and Royal Canadian Navy (Reserve), and to maintain interest in the Naval Service amongst former naval personnel . . ."

From now on these functions will be assumed by a new magazine, serving all Canada's Armed Forces, which will soon begin publication.

In the meantime, the editor would like to express his heartfelt thanks to all those who have given *The Crowsnest* their loyal support throughout the 16 years and 8 months of its existence.

16 years and 8 months of its existence. Special gratitude has been earned by Cdr. R. C. Hayden, who was the founding editor and who, for the past dozen years, has been its mentor, Lt.-Cdr. J. M. Thornton, who has never missed a deadline with his Naval Lore Corner, Lt. H. R. (Bill) Percy and the late Cdr. Kenneth E. Grant for their skilled and entertaining writings, and the officers of the former Directorate of Naval Information and unnumbered officers, men and civilian friends who have given of their time and talent.

Nor should one forget the support unstintingly given by the Naval Historian, E. C. Russell, and his staff, by Cdr. C. H. Little, now retired, whose interests also lay in the historical field, by a host of naval photographers, by the artists of the former Naval Art Section, by patient and helpful civil servants (Miss Elsie Mills, of Personnel Records, was a shining example) and, on the production end, the people on the staff of the Queen's Printer who printed and distributed the magazine and those in the Navy's Directorate of Publications and Printing who attended to financial and business arrangements.

The editor would like to have been able to thank each of the magazine's supporters by name and lift the veil of anonymity from such frequently appended initials as "H.C.W.", "J.L.W.", "Ph. Ch."

It is earnestly hoped that the same generous support will be extended to the new magazine and that material will be prepared and forwarded now so that the Royal Canadian Navy, and its reserve, veterans and civilian coworkers will be well represented in the first and succeeding issues. Contributions should be sent to The Editor, Sentinel, Directorate of Information Services, CFHQ, Ottawa.

Unexpired portions of Crowsnest subscriptions will be applied to the new magazine. However, subscribers who do not wish to receive it may apply to the Queen's Printer for rebate.

RCN NEWS REVIEW

Ships Pay Calls To North Europe

Four Halifax-based ships sailed on May 4 on a two-month cruise overseas to ports in Britain, the North Sea and Baltic.

The aircraft carrier Bonaventure was to call at Portsmouth, England, May 14-25; Stockholm, Sweden, May 31-June 7, and Belfast, North Ireland, June 14-21 and June 30-July 2. Meanwhile the helicopter-destroyer Ottawa and destroyer escort Chaudiere were to call at Portland, England, May 14-15; Copenhagen, Denmark, May 18-25, and Helsinki, Finland, May 31-June 7.

The operational support ship *Provider*, at Portsmouth, England, May 14-20, was to return to Halifax for a brief period and then proceed again to European waters to visit Douglas, Isle of Man, June 22-25, and Bangor, Northern Ireland, June 30-July 2. The helicopter destroyer HMCS *Assiniboine*, which joins the ships in mid-June, was to call at Dublin, Eire, June 14-21.

All ships will return in company to Halifax on July 9.

Unicorn Awarded Efficiency Trophy

The Naval Divisions Efficiency trophy, presented by the Canadian Shipbuilding and Ship Repairing Association, has again been won by a prairie naval division, this time by HMCS *Unicorn*, of Saskatoon. For the two previous years the winner was HMCS *Tecumseh*, the Calgary naval division.

The runner-up award, the Malahat trophy, has been jointly awarded to HMCS Carleton the Ottawa naval division, and Tecumseh. It will be held at Carleton for six months and at Tecumseh for the other half of the year. The trophy was originally presented by Victoria's naval division, HMCS Malahat.

The Barry German trophy, presented annually by the Naval Officers Associations of Canada to the most improved division, has been awarded to HMCS Star, Hamilton, and the NOAC's RCNR band trophy has gone to HMCS Discovery, Vancouver.

A Statement from the Chief of Defence Staff

Y TASK of announcing that The Crowsnest, The Canadian Army Journal and Roundel, the official magazines of the RCN, Canadian Army and the RCAF respectively, cease publication with this issue leaves me with mixed emotions. On the one hand, I am saddened by the knowledge that the magazines which made such outstanding contributions to service life will no longer be with us, on the other hand, I am pleased that a new integrated service publication is about to make its appearance.

The service publications came into existence with the objective of helping their readers to stay informed on matters which were of particular interest and value to them. These periodicals succeeded in achieving this difficult aim and played an important role in keeping service personnel, veterans and interested private citizens aware of the military's past achievements, present plans and future aspirations.

But magazines of the calibre of *The Crowsnest, Army Journal* and *Roundel* could not be produced solely by the labours of the magazines' editors. They required, and received, the assistance of many people and it is these personnel whom I wish to thank now: the individuals of all ranks who, throughout the years, wrote articles or took photographs; those who used their artistic talents to brighten the magazine pages; and those whose advice was eagerly sought and gratefully received. To all of these people I express my sincere gratitude for their dedicated efforts. Without their unfailing support, the existence of the service publications would not have been possible.

With the passing of the present magazines, a new publication, in keeping with the principles of integration, will be created. I extend to this new periodical my very best wishes and I call on all service personnel to give it their wholehearted support.

F. R. MILLER,

F. R. MILLER, Air Chief Marshal, Chief of the Defence Staff

The Fanta Tait trophy for the best wren division went to HMCS Cabot, St. John's, Nfld.

Carleton, in addition to sharing the Malahat trophy, has won the Cock o' the Walk trophy from HMCS Cataraqui, Kingston, for the second successive year.

Reserve Training Fleet Augmented

Annual summer training for members of the Royal Canadian Naval Reserve this year includes two cadet training cruises overseas and the augmentation of Great Lakes training by two modern "salt water" warships.

The ocean escorts Swansea and New Waterford, with a total of 80 cadets embarked from University Naval Training Divisions across Canada, sailed from Halifax May 31. They were to call at Rotterdam, The Netherlands, June 12-21; have a regatta at Torquay, Eng-

land, during their June 22-24 call, and return to Halifax July 3. The Swansea will make the next cruise by herself, leaving Halifax July 19 for visits to ports in the British Isles, returning to home port Aug. 27.

The helicopter-destroyer St. Laurent and destroyer escort Gatineau leave Halifax July 12 for the Great Lakes to assist in the summer training program of the RCNR. Ports of call include Hamilton, July 17-20 and Toronto July 23-26. The St. Laurent then will go to Oshawa July 28-30 while the Gatineau visits Kingston July 28-31. Both warships will be at Montreal August 1-4 and return to Halifax August 7.

Meanwhile two gate vessels and a cargo vessel have been busy on the inland seas since early May, providing afloat training for reserves. They are HMC Ships Porte St. Jean, Porte St. Louis and Scatari.

All told, some 300 UNTD cadets will make training cruises overseas and on the Great Lakes. Most of the cadets' shore training will be at HMCS Cornwallis in Nova Scotia's Annapolis Valley.

A total of 1,100 men and wrens will take summer training, mostly at the Great Lakes centre at Hamilton.

Some 450 officers also receive annual training but it is obtained throughout the year in ships and establishments of the regular force, as well as at Hamilton in the summer.

Minister Confers Degrees at RMC

Hon. Paul Hellyer, Minister of National Defence and chancellor of the Royal Military College of Canada, conferred honorary degrees on an economist, a scientist and a retired air marshal at the May 28 convocation of the college.

At RMC, where 194 cadets of the navy, army and air force completed their final year, Mr. Hellyer granted honorary degrees to:

Dr. Marcel Faribault, BA, DCL, L1D, FRSC, of Montreal, on honorary doctorate of laws;

Dr. Leo Edmond Marion, MBE, MSc, PhD, DSc, FRSC, of Ottawa, an honorary doctorate of science and Air Marshal C. Roy Slemon, CB, CBE, CD, BSc, of Winnipeg, an honorary doctorate of military science (DMilSc).

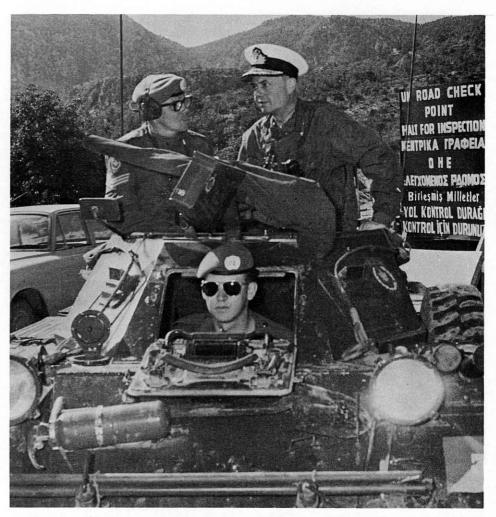
Dr. Faribault, an economist and president and general manager of the General Trust of Canada, delivered the convocation address. Dr. Marion is vicepresident (scientific) of the National Research Council, and Air Marshal Slemon, who retired in 1964 as Deputy Commander-in-Chief, North American Air Defence Command, is associated with the USAF Academy Association.

The graduating class members at RMC received from Mr. Hellyer their baccalaureate degrees in general and honours Arts and Science and in Engineering (Chemical, Civil, Electrical, Mechanical or Engineering Physics). On graduation the cadets are commissioned as officers in their respective services: the RCN, the Canadian Army and the RCAF.

RN Frigates on Seaway Cruise

The 17th Frigate Squadron, Royal Navy, commanded by Captain C. B. H. Wake-Walker, R.N., is on a cadet training cruise to North American waters.

The four Whitby class antisubmarine frigates, each with 45 cadets from the



Vice-Admiral K. L. Dyer, Canadian Forces Chief of Personnel, is briefed by ferret scout car commander, Sergeant Howard Owen of Calgary, while en route to observe a Kyrenia road convoy in Cyprus. Driver of the vehicle is Trooper Peter Leggett of Lethbridge, Alta., of the Lord Strathcona's Horse. Adm. Dyer's two-week visit to the Middle East included tours of Canadian UN contingents in Cyprus and Egypt. (CYP-65-139-5)

Dartmouth naval college in England have already visited Sydney, N.S., Montreal and Kingston.

HM Ships Tenby, Torquay, East-bourne and Scarborough were also to visit the Canadian ports of Toronto, June 3-7, Quebec City, June 17-19, and Halifax, June 21-30.

Cruise Covers 11,000 Miles

Canadian warships returning April 2 to Esquimalt, B.C., from an 11,000-mile, two-month training cruise to Central America reported overwhelming interest on the part of the people of Puntarenas, Costa Rica, and Sacramento, Calif.

In Costa Rica, 3,340 swarmed over the upper decks of HMCS Yukon, as the destroyer escort held the RCN's first open house in that country.

At Sacramento, another first time visit for the RCN, the Yukon and ocean es-

corts New Glasgow and Sussexvale were able to cope with only half of the 20,000 curious who lined up for open house in the three ships.

It was the first time foreign warships had visited the California port, opened two years ago.

RCN Officers Promoted

The following RCN officer promotions were announced by general message on May 27:

To be Commodore (1): R. M. Battles.
To Be Captain (4): D. A. Maciver, L.
J. Hutchins, M. T. Gardner, J. K. Power,
To Be Chaplain Class V (RC) (1): J.
A. MacLean.

To Be Commander (11): D. J. Kidd, V. H. Skinner, B. L. Wilkins, J. B. Tucker, R. F. Choat, N. S. Jackson, D. N. Mainguy, S. M. Rowell, E. S. Mitchell, O. J. Cavenagh, D. Ross. To Be Lieutenant-Commander (50): P. A. Boyd, G. E. McArthur, J. F. Campbell, E. B. Larkin, R. J. Johnson, J. K. Luke, M. S. McCall, D. N. Mac-Gillivray, N. E. Winchester, G. F. Smith;

D. B. Rogers, T. W. Kenny, R. G. Campbell, J. M. Arnold, F. G. Clark, W. F. Shaddick, N. G. Anderson, F. C. Willis, J. Dexter, A. Sagar, G. E. Watson:

D. M. Carmody, H. R. Percy, J. W. Burnett, H. B. A. Russell, K. P. Sheedy, M. J. Middleton, T. H. Copeland, D. H. Smith, J. E. Pinet, R. C. Collins;

J. Lehman, W. R. Brain, T. W. Pollard, J. W. Smallwood, E. W. Smith, A. T. Satchwell, R. G. Lemmex, J. R. Nowlan, R. A. Cullwick, L. T. Zbitnew;

W. H. Atwood, J. W. Buchanan, R. C. Eastman, T. G. Pye, J. C. Cowie, D. G. Fraser, J. C. Bonneau, A. M. McSween, K. J. Province.

The message specified that promotion was contingent upon the officers named in the list passing the prescribed medical examination. The majority of the promotions are effective in July.

RN Guided Missile Ship at Esquimalt

The 6,200-ton guided missile destroyer HMS *Kent* arrived at Esquimalt on the morning of April 30. For many of the warship's 35 officers and some 450 men it was their first look at Canada.

The ship spent five days at the Pacific Command's naval base. They were busy days and nights for the ship's company. They liked the coolness of the place, after nearly a year in the Far East where the two-year-old HMS

Diving Display at Marine Museum

An underwater exploration room was recently opened at the Marine Museum of Upper Canada, Toronto.

Situated in Stanley Barracks, Exhibition Park, the display features equipment used in diving, both Scuba and skin-diving, and the old "hard hat" or helmeted diving. The latter display is complete with its manually operated air pump.

Many historic items raised from ships lost on the Great Lakes are to be seen in the exhibit. Their recovery has been made possible through the development of Scuba diving, which permits underwater exploration in shallower waters.

Since 1960, many skin-divers of the Underwater Club of Canada have collaborated with the Marine Museum in gathering this collection.

Kent had spent her first commission based at Singapore.

For all the Royal Navy visitors there were special events—sports, social functions, sightseeing trips, dinners. Many were invited to Victoria homes.

A rugby match between the *Kent* and a Pacific Command team saw the Canadians tear up the turf to the tune of 20-plus to eight.

"We thought it was the sporting thing to do . . . let them win," remarked one of the *Kent's* players—as he smoothed down a large bandage over his forehead.

Open house programs on the weekend afternoons of May 1 and 2 saw nearly 3,500 persons tour through the missile ship. Camera fans focused their

attention on the ship's massive rocket system and on her helicopter. Lining up on "A" jetty in HMC Dockyard, the visitors were impressed with the smart design and complex equipment of the 520-foot warship.

A large contingent of officers and men from the *Kent* joined in the Pacific Command's May 2 observance of Battle of Atlantic Sunday.

Actually, the flags of three navies flew over Esquimalt Harbour that May 1-28 week-end; HMS Kent's white ensign; Canada's bright red maple leaf; and, on the Naden side, the stars and stripes. Visiting at the same time was the USN's radar picket ship, USS Interpreter.

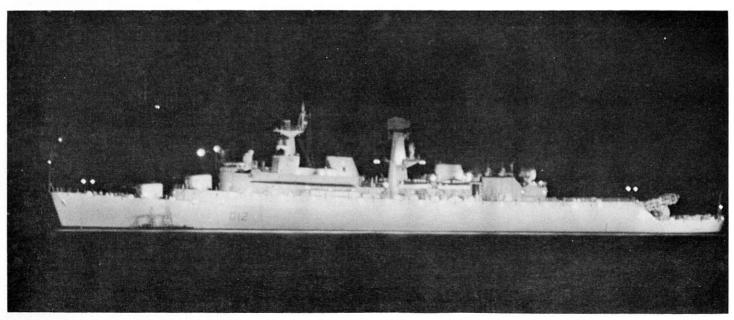
Saguenay Commissioned

Cdr. H. H. W. Plant took command of the helicopter-destroyer Saguenay when the converted St. Laurent class warship was commissioned at Esquimalt on May 14.

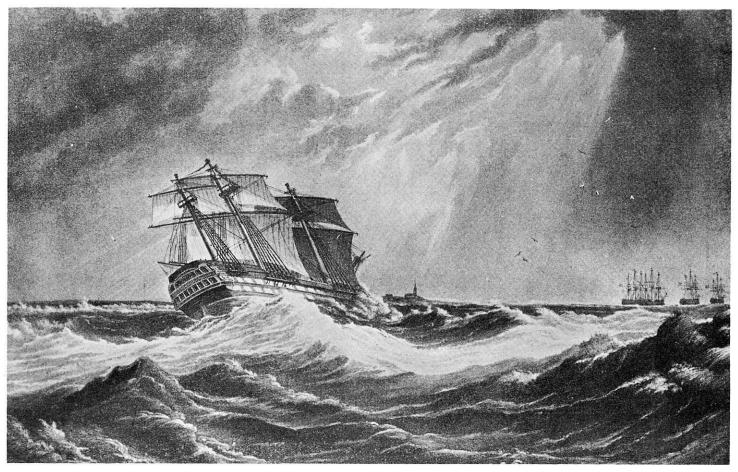
She is the fourth ship of her class to be converted into a helicopter-destroyer. The others are *Assiniboine* and *St. Laurent*, 1963, and the *Ottawa*, 1964.

Cdr. Plant entered the RCN as a midshipman from Royal Roads in 1948. He took early training with the Royal Navy and in 1951 joined the destroyer Haida for a tour of duty in the Korean war theatre.

More recently Cdr. Plant served in the destroyer escorts *Margaree* and *Yukon*, in the latter as an executive officer. He was promoted to commander in February.



Floodlighting gave the Royal Navy's guided missile destroyer HMS Kent an almost ghost-like appearance each night during her five-day visit to Esquimalt. The Kent visited Esquimalt and Vancouver en route from Singapore to United Kingdom. (E-80340)



HMS Malabar, whose grounding off Prince Edward Island in 1838 is described in the accompanying article, was a 74-gun ship, similar in appearance to HMS Magnificent, a "74" launched in 1806. More fortunate than the Malabar, the Magnificent, shown in this dramatic 19th century painting, by masterly handling escaped being wrecked on a lee shore in 1812.

THE GROUNDING OF HMS MALABAR

IN MY STAMP collection I have a Portsmouth Ship Letter which was written on Nov. 23, 1839, to a London lawyer by a Royal Marine, whose ship, the Vestal, was stationed in Bermuda.

Most such letters contain little of lasting interest as they are really business correspondence. This one disposes of the business matters in the first two paragraphs and then contains several paragraphs of both naval and Canadian interest. The last incident mentioned in this letter, as I have been able to reconstruct it, seems worthy of telling.

The letter reads in part:

"The Vestal has had the best of station hitherto and will most likely continue to do so, as she is a favour-

by J. C. Arnell

ite of the Admiral's. We expect to be cruising off Grenada most of the winter months and then go with the Admiral again to Quebec. He must now have enough of us to do as ships are required at Mexico and Canada which are the two extremes of this extensive station. We sail in companion with the Cornwallis (Admirals ship) in a few days for the West Indies . . .

"At present there are only about 40 marines and 1 officer up at the Lakes, but it is probable that the force will be considerable increased in the Spring as the good people

there are anything but quiet—and the removal of Lord Durham is most unfortunate for the Colony.

"The Malabar is here—having been on shore at Prince Edward's Island and lost most of her guns—she is much injured and returns to England in a week or ten days for repairs. There is no more news—accept my thanks for past favours and believe me

Your truly obliged

J. H. GASCOIGNE"

At the time this letter was written, Bermuda was the permanent base of the British North American Station. Before 1819, Halifax had been the headquarters of the fleet and Bermuda had only just been included within the command. In 1795, a "place of refreshment and supply" was set up there for ships in southern waters and, in 1804, the Admiralty established the base at Ireland Island, which was soon to rival and then replace Halifax as the most important naval base north of the West Indies.

It is not surprising to find Lt. Gascoigne referring to the need for ships at Mexico and Canada. In Central America, there was general civil strife in Guatemala and there had been trouble between Mexico and both the French and the Americans for several years, so that the British possessions in the Caribbean would have had to be protected. At the same time, rebellion had broken out in both Upper and Lower Canada. Under these circumstances, the Admiral, who was Vice-Admiral Sir Charles Paget, GCH, would have been kept on the move visiting the various parts of his command.

Considering the size of the area, the North America and West Indies fleet, as given in the official Navy List of September 1838, was very small and one wonders at the success of Britain in maintaining control of the western Atlantic with it. It consisted of two 74-gun ships, the Cornwallis and the Malabar; two 46-gun ships, the Madagascar and the Seringapatam; two 28gun ships, the Andromache and the Crocodile; the 26-gun Vestal; ten sloops of 16-20 guns, of which two had been ordered home; three brigantines, two schooners and six steam vessels. In addition, there were miscellaneous receiving ships, convict ships and others in Bermuda, Halifax and elsewhere, including four ships on the Great Lakes.

As this article is primarily concerned with the *Malabar* and the events surrounding her grounding on Prince Edward Island, we must limit ourselves to this ship and her captain, from whose letters* much of the following material has been drawn.

Captain Edward Harvey took command of the *Malabar* in Plymouth in February 1838 and must have joined the North American Station in the spring of that year, for he was the senior officer at Quebec when Lord Durham arrived in the *Hastings* on May 27. His letters to Sir Charles Paget are a reflection of the activities at the time and a valuable source of information. On Oct. 11 he wrote that on Oct. 6 the Governor General (presumably Lord

Durham) had requested the Navy to move a regiment (93rd Highlanders) from Halifax to Quebec.

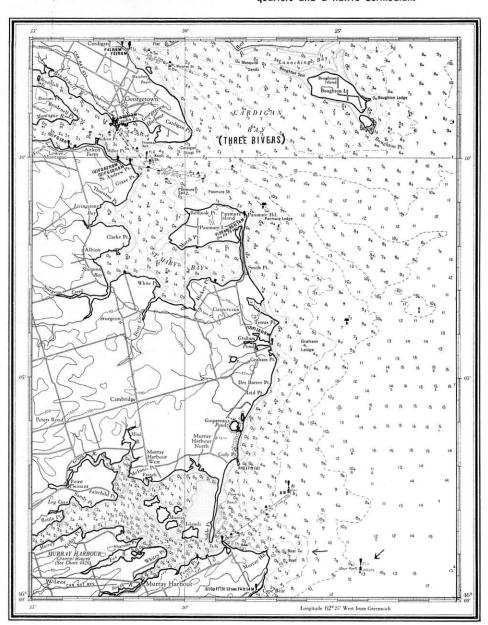
It was subsequently decided that the troops should march to Pictou, N.S., and be embarked there. This would greatly reduce the time necessary to get the troops to Quebec, as only one of the three ships available was steam-driven. The *Medea*, the steam vessel, was sent off the following day to Pictou with the necessary orders for the troop movements, to be followed by the two sailing ships as soon as weather permitted.

The original plan had not included the *Malabar*; however a requirement to have a ship available to return Lord Durham to England resulted in the substitution of the *Malabar* for the *Inconstant* in the troop transfer. The Malabar finally left Quebec on Oct. 12 and headed for Pictou. She carried two

coasting pilots—Gratien Sire, of Quebec, and Thomas Pickford, of Halifax.

On the morning of Friday, Oct. 19, the ship was sailing down the eastern shore of Prince Edward Island, heading for Pictou harbour, directly to the south. The wind was from a northeasterly direction and the pilots refused to take the ship into Pictou. It was decided instead to round Cape Bear on the

The Bear Reef whistle buoy at the lower right hand corner of a portion of a chart of Prince Edward Island, may have been the spot where the Malabar grounded, as described in Dr. Arnell's article, although the soundings do not seem to bear this out. A spot north-northeast of Cape Bear seems more likely, but this contradicts the ship's log. Cardigan Bay was then known as Three Rivers. The author, Dr. John C. Arnell, is Scientific Deputy for Engineering and Development to the Chief of Logistics, Engineering and Development at Canadian Forces Headquarters and a native Bermudian.



^{*}These letters are to be found in the Admiralty-1 papers, Vol 1976, the originals of which are in the Public Records, Office, London, and which are available on microfilm in the Public Archives of Canada.

southeast corner of Prince Edward Island and find an anchorage in North-umberland Strait, where it was considered the troops could be embarked. At 1 p.m., in Captain Harvey's own words, "the lead being kept going, and the two Coasting Pilots having charge, being on deck, the Master also present, she (the Malabar) struck on a reef, where she remained, striking at times violently, until half past 10 o'clock, of the following day, although every exertion was made".

His letter continues, "Guns were continually fired, and rockets thrown up, during the night, but the only assistance offered, was by a Mr. Wighteman (the captain's spelling), of Three Rivers, who came off in a small boat and voluntarily offered his services, and remained with us the whole time. His local knowledge was of great assistance, and enabled me to run for this anchorage (Three Rivers), where she rode out a heavy gale from the SE in which she must have been lost had she remained on the reef."

The ship's log provides further details to what must have been a rather exciting incident. The shoal on which the Malabar grounded was about 11/2 miles ENE of Cape Bear, according to the log. Once on the reef the pilots shortened sail and then set the foresail and topsail in the hope of "paying her off". When she would not move, the sails were furled. A boat was then lowered and the master sent to sound around her. He found that the ship was on the edge of a rather extensive shoal and that there was four fathoms of water within a ship's length of her broadside.

Captain Harvey then placed both the pilots "under an arrest". He put out all his boats and laid out an anchor on a "hempen stream cable" in slightly deeper water off the port bow. A heavy strain was put on this in the hope of moving the ship, but without avail. A kedge anchor was laid out in deeper water with the intention of using its line to haul out a bower anchor and cable, but the heavy swell made this impossible. As a result of the swell, the ship was pounding heavily on the shoal and started to leak.

By this time it appears that evening was approaching and a decision was made to remove some of the upper masts and rigging. This presumably was to reduce the hazard from above in the event of a crisis during the night. Also the first steps were taken to lighten the ship and 16 lower deck guns and one upper deck gun were heaved overboard. As no help beyond

Mr. Wightman was forthcoming, Captain Pascoe, who headed the Royal Marine detachment on board the *Malabar*, was sent ashore to notify Cdr. Nott of the *Medea*, which had been awaiting the *Malabar*'s arrival in Pictou, and to seek his assistance.

At 10 o'clock that evening, they began to fire guns every minute and let off rockets, as already indicated from Captain Harvey's letters. In addition, blue lights were burned during the night. Obviously not being prepared to



Another view of a 74-gun ship similar to the Malabar. This is HMS Aboukir, launched in 1807 and sold in 1838. The former RN naval base at Ireland Island, Bermuda, was named HMS Malabar.

depend on Captain Pascoe, the mate Mr. Slight, was sent directly to Pictou to seek assistance. By midnight, the wind had dropped to a light breeze and the weather was fine. The night was apparently uneventful, with the chain pump keeping the leak under control.

By seven on Saturday morning, the wind was freshening and the ship was further lightened by heaving 11 lower deck guns and eight upper deck guns overboard, together with some shot. As the wind was now from a southerly direction and getting stronger all the time, it was hoped that the lightened ship might be blown back off the shoal. To aid nature, the three topsails and the foresail were set. By nine o'clock the *Medea* was observed to be leaving Pictou and coming to the assistance of the *Malabar*. The swell was increasing as the gale developed and the ship began again to pound heavily. Finally at 10 o'clock, the ship began to go astern and within half an hour was again afloat in deep water.

As the Malabar was making sail, a cutter alongside upset and the two men in it, William Hancock and James Murphy, were drowned. These were the only casualties of the incident. The Medea was approaching at the time and picked up the boat. By a quarter to 12 noon, the Malabar was safely anchored in 12 fathoms of water in the outer anchorage of Three Rivers, with sails furled and the Medea standing by. They were none too soon in reaching safety, for in the words of The Colonial Herald of Oct. 27, 1838, they reached Three Rivers "at the commencement of a South easterly gale, which had it commenced when the ship was on the reef, would have occasioned the loss of the vessel and most probably many of her crew."

In his letter to Sir Charles Paget, written the following day, Captain Harvey reported that the ship was making three inches of water an hour and that he was unable to determine the extent of the underwater damage. Estimating that it might be some time before she could be repaired and the troops embarked, he decided against undertaking the troop movement because of the danger of getting caught in a freeze-up at Quebec, if he should be delayed too long. Instead, he proceeded to Halifax as soon as was practicable, which proved to be three days later, or the following Wednesday, Oct. 24. The trip to Halifax took a week and in a letter written after his arrival there, Captain Harvey reported that the Malabar's "leakage has not increased, although the weather was very bad on her passage here." He goes on:

"I have reason to believe she has lost her false-keel but I am unable to ascertain with certainty, the extent of injury she may have sustained. "A survey will be held as soon as possible when I shall be enabled to make a return of the quantity of shot and other stores lost on the occasion."

And well he should, for his log shows 36 guns were thrown overboard, together with an unspecified amount of



This magnificent silver service was presented to Joseph Wightman, of Prince Edward Island, by the captain and officers of HMS Malabar in recognition of his services to the ship after her grounding.

shot and several anchors. By Nov. 5 Captain Harvey was able to report that the leakage had gradually decreased to only two inches of water an hour. Presumably shortly afterwards the trip was made to Bermuda for two and a half weeks later, Lt. Cascoigne was able to write "the *Malabar* is here—having been on shore at Prince Edward's Island and lost most of her guns—she is much injured and returns to England in a week or 10 days for repairs."

THERE is a postscript to this story. Group Captain H. R. Stewart, RCAF (Retired), of Prince Edward Island and Ottawa, while living on the Island some 30 years ago, purchased from a local jeweller during the final settlement of an estate a brass-bound oak chest containing a silver service consisting of a coffee pot, tea pot, cream jug, sugar bowl and salver. On the tray, the coffee pot and the tea pot are inscribed:

Presented to
Mr. Joseph Wightman
by

Captain Edward Harvey
and the Officers of HMS Malabar
for the important assistance he
rendered to that Ship when
in danger upon the rocks off
Cape Bear
Prince Edward's Island
19th Octr 1838

The cream jug and the sugar bowl, being smaller, only carry the inscription:

> To J.W. from the "MALABARS"

While the tea pot, cream and sugar are a set with a hallmark dating them as 1838-9 or contemporary with the incident, the coffee pot is a few years older (1825-6) and of superior quality

and the silver salver which is 11 inches in diameter with a conventional design very heavily embossed around its surface, must have been a special article even in that day, for stamped on its undersurface are London hallmarks indicating that it was made in 1745-6.

In the absence of any information about this gift, one can only speculate that when the *Malabar* got back to Plymouth fo repairs, Captain Harvey and his officers decided to show their appreciation to the only man with the courage to face the gale and to help them when grounded, and after choosing hollow ware, they selected the salver, which even in 1838 would have been classed as an antique, as a special token of their esteem.

AUTHOR'S NOTE—I am indebted to E. C. Russell, the Naval historian, and G/C H. R. Stewart (Retired) for their assistance in providing me with information and guiding me to my main source in the Public Archives of Canada.—J.C.A.



OFFICERS AND MEN

Armed Forces Days To Be Celebrated

A series of Armed Forces Days across Canada has been initiated this year, with the first scheduled for Ottawa on June 12.

A parade of bands, men and equipment from the Armed Forces was accompanied by a simultaneous fly-past of service aircraft.

Incorporating many of the features of the individual service celebrations held annually in the past, Armed Forces Day programs will vary considerably at each location in Canada, but in each instance will be an integrated effort by the forces.

Armed Forces Day was to be observed in a formal way in five major centres:

National: Ottawa, Saturday, June 12 Atlantic Coast: Shearwater, Saturday, June 26

Pacific Coast: Victoria, Saturday, June 26

Manitoba: Winnipeg, Sept 11 or 26 Quebec: St. Hubert, Saturday, Sept 18.

For the first Armed Forces Day in Ottawa, a parade lasting more than an

Births

To Petty Officer Jerry Allan, USN, Coverdale, and Mrs. Allan, a son.

To Able Seaman G. A. Arnold, Saskatchewan, and Mrs. Arnold, a daughter.

To Able Seaman Robert Bolger, Coverdale, and Mrs. Bolger, a son.

To Petty Officer R. A. Cato, Saskatchewan, and Mrs. Cato, a daughter.

To Sub-Lieutenant P. J. Child, Saskatchewan, and Mrs. Child, a daughter.

To Leading Seaman R. G. Derkacz, Saskatchewan, and Mrs. Derkacz, a daughter.

To Leading Seaman Robert Doak, Coverdale, and Mrs. Doak, a daughter.

To Leading Seaman Steven Fox, Stadacona, and Mrs. Fox, a son.

To Leading Seaman S. A. Grenda, Saskat-chewan, and Mrs. Grenda, a daughter.

To Able Seaman Robert Gurnick, Coverdale, and Mrs. Gurnick, a daughter.

To Able Seaman R. L. Jones, Saskatche-

wan, and Mrs. Jones, a son.

To Leading Seaman Tyrone Le Mercier,
Saskatchewan, and Mrs. Le Mercier, a son.

To Able Seaman R. F. Olson, Saskatchewan, and Mrs. Olson, a son.

Petty Officer F. G. Saunders, Saskatchewan, and Mrs. Saunders, a son.

To Able Seaman R. E. Swayze, Naden, and Mrs. Swayze, a daughter.

To Lieutenant - Commander Howard C. Wallace, Canadian Forces Headquarters, and Mrs. Wallace, a daughter.



Chaplain (RC) James Anthony MacLean has been appointed Roman Catholic chaplain of the fleet at Canadian Forces Headquarters in Ottawa. He has been eastern command RC chaplain for the forces, at Halifax.

hour was scheduled to include more than 4,000 men of the three services plus mobile or transportable equipment.

Chaplain of Fleet (RC) Retires

Chaplain (RC) Joseph Edward Whelly, who has been Roman Catholic chaplain of the fleet since October 1952, proceeded on retirement leave on May 10.

Succeeding him in the appointment of Deputy Chaplain General (RC) of the Armed Forces is Chaplain James Anthony MacLean.

Father Whelly was educated in Saint John schools and graduated from St. Joseph's University as a bachelor of arts in 1932. He studied theology at Holy Heart Seminary, Halifax, and was ordained at Saint John in 1937.

He served in several New Brunswick parishes before entering the Navy as a chaplain in 1943.

Father Whelly, who came to Ottawa in 1958 with the integration of the

chaplain services, will return in May to the Saint John Diocese for appointment by Bishop A. B. Leverman.

His successor, Father MacLean, entered the Navy at Halifax in 1951 and served with RCN ships in the Korean war theatre. Since 1960 he has been inter-service command chaplain (RC) at Halifax. Before joining the Navy he served in two parishes in Antigonish County, N.S.

Associate Minister Visits Europe

Hon. Leo Cadieux, Associate Ministter of National Defence, paid his first visit to Canadian Forces in Europe from April 21 to 27.

Mr. Cadieux inspected 3 Wing of 1 Air Division, RCAF, at Zweibrucken, Germany, April 22-23. He visited the Fourth Canadian Infantry Brigade Group in Soest, Germany, on the 26th, returning to Ottawa by air on the following day.

Before inspecting the Canadian formations in the NATO allied command in Europe, he attended the ceremony marking the 50th anniversary of the Battle of St. Julien near Ypres, Belgium, on April 22.

Officers Going to New Appointments

A number of appointments of interest have been announced by Canadian Forces Headquarters.

Captain Vernon W. Howland in August will become Assistant Chief of Staff (Logistics and Supply) to the Flag Officer Atlantic Coast at Halifax.

At present Naval Member, Canadian Joint Staff Washington, he will succeed Captain F. D. Elcock, who will join Canadian Forces Headquarters in September as director of manpower requirements.

Captain John Edward Roue will become Director of Operations Systems at Canadian Forces Headquarters in August. He has been attending the National Defence College, Kingston.

Captain J. A. M. Lynch, who has been serving at Canadian Forces Headquarters, becomes Principal Naval Overseer, Maritimes, at Halifax, on Aug. 8, succeeding Captain R. L. Lane, whose appointment to the National Defence Defence College course at Kingston was announced earlier.

Captain Robert M. Battles will take up the appointments of Superintendent HMC Dockyard, Esquimalt, and Superintendent Pacific Coast in July in the rank of commodore.

Succeeding him on Aug. 16 as Manager Ship Repair Activity Pacific Coast will be Captain John C. Chauvin, who has been attending the National Defence College course in Kingston, Ont.

Cdr. H. W. Vondette takes command of the destroyer escort Restigouche on July 7; Cdr. H. D. Joy takes command of the Qu'Appelle on Aug. 28 and Cdr. J. A. Fulton, the Gatineau on Aug. 11.

Captain William Kidd will take command of the Second Canadian Escort Squadron at Esquimalt on July 28. He succeeds Captain R. J. Pickford whose new appointment was to be announced later.

Captain Kidd has been assistant director of operational task plans on the staff of the Supreme Allied Commander Atlantic, Norfolk, Va., for the past two years.

Many Changes In Uniform Kit

Recommendations made by a committee composed entirely of lower deck personnel except for the chairman are behind the extensive revisions in RCN uniform kit recently announced.

The committee was established in October 1963 by the Flag Officer Pacific Coast to examine kit requirements. Two submissions were made to the Canadian Forces Headquarters on the basis of the report, recommending changes to kit lists, exchange clothing issues and clothing issued on permanent loan.

While action has been taken from time to time, in piecemeal fashion, to bring the various articles of the present-day sailor's kit up to date, this is the first time a complete survey of the kit requirements has been carried out.

The wearing of seaman's uniform, negative jumpers (2As), ashore in warm weather has been authorized, thus "legalizing" a practice of long standing.

A peaked cap for wear at sea with working dress is the only newly developed item authorized under the kit changes, but extensive changes have been made in kit requirements, with the deletion of some items no longer required because of the improved habitability of ships or because they have been outdated by items more functional and popular. The peaked caps will be issued as soon as they are available.

A dress change has been authorized in Dress 13B, for shipboard hot weather wear, for both Class I (petty officers, first class, and above) and Class II (men dressed as seamen) uniforms, with the substitution of white shoes for the former black footwear.

Blankets, a personal permanent loan item, are being reduced from two to one each for all men.

Men will no longer be issued with two pairs of black stockings, but their allowance of black socks will be increased by two to six pairs. Seaboot stockings have been deleted and replaced by grey wool socks, an added item. White leather shoes are an added item for men wearing Class II uniform.

Additions have been made to the working clothes items authorized as exchange issues, which will include two working jackets, three working shirts and three pairs of working trousers.

All changes are listed in CANAVGEN 97/65.

\$2,000 Bursary For Sub-Lieutenant

A National Research Council bursary for \$2,000 has been awarded to Sub-Lt. Arthur Edwin Burgess, *Stadacona*, and he plans to make use of it by studying at the Royal Society Mond Laboratory at Cambridge University in England. He is particularly interested in doing research in low temperature physics.

Sub-Lt. Burgess, the son of Mr. and Mrs. Arthur Burgess, of Calgary, was born in 1940 in Summerside, P.E.I. He

MEMORIAL PLAQUE



COMMEMORATIVE silver plaque was unveiled in the Operations Division of Fleet School, Stadacona, on Feb. 26 by Lt.-Cdr. A. C. Gorsline. The plaque is in memory of Lt.-Cdr. G. A. Carroll, DSM, who was the first radar plotter, the first RP instructor, and also the first RP promoted to boatswain RP in the Royal Canadian Navy. Lt.-Cdr. Carroll joined the RCN in Oct. 1938 and died June 5, 1963, while serving in the Operations Division, Fleet School, Stadacona.

The plaque will be engraved with the names of all radar plotters retired to pension and the name of the radar plotter of the year, determined by the highest over-all marks obtained by any RP completing the trade group three

course. The memorial plaque was made possible by contributions of radar plotters throughout the RCN.

Lt.-Cdr. Gorsline was the first radar plotter to be promoted to officer. He and Lt.-Cdr. Carroll were the first instructors in the old radar plot trade. In the picture, the chief petty officers, first class, on the left and the chief petty officers, second class, and petty officers, first class, on the right were all instructed by the two officers. Also shown are Lt.-Cdr. James Murwin, training officer, Operations Division, Lt.-Cdr. Gorsline, Captain D. G. Padmore, commanding officer, Stadacona, and Cdr. S. M. King, officer-in-charge, Operations Division. (HS-77557)

attended school at Shilo, Man., before going to College Militaire Royal de Saint-Jean. Last year he graduated from the Royal Military College of Canada, at Kingston, with an honours degree in mathematics and physics.

He is on the staff of the Commodore Personnel Atlantic Coast.

Suggestions Save Nearly \$500,000

M. F. Davis, Ottawa, earned \$325 in award money from the Suggestion Award Committee of the Department of National Defence during April.

Adoption of his suggestion, submitted when he was a technical officer at HMC Dockyard, Halifax, will reduce docking time, labour, cable costs and improve shipboard maintenance and testing facilities for ships in dry dock.

During the fiscal year ending March 31, the Department of National Defence realized savings estimated at \$492,870 from suggestions submitted through the SAC. Prize money amounting to \$24,330 was paid to 394 persons for an average cash award of \$74,37.

Commission for Clearance Diver

CPO B. W. Robinson has been promoted to commissioned officer in the Royal Canadian Navy.

Mr. Robinson, a clearance diver enlisted in the RCN in 1950. He has served in the aircraft carriers Magnificent and Bonaventure, the Arctic patrol ship Labrador and as a member of the 5th Escort Squadron's clearance diving team. He is serving at Naden, but will join HMCS Granby, the Navy's diving school, in Dartmouth, later this summer.

Cd. Off. Robinson attended Lisgar Collegiate High School in Ottawa and later attended Kelvin Technical High School in Winnipeg. In 1948 he served briefly with Ottawa's 30th Field Regiment, Royal Canadian Artillery (Militia).

Sonar Prize to Paid-Off Ship

The ASW training proficiency competition for 1964 in the Atlantic Command has been won by a team from HMCS Lanark for the second year in succession

The Lanark, a modernized Second World War frigate, was paid off for disposal in January of this year. However, sonar personnel were brought together from other ships and establishments to receive the trophy from Rear-Admiral W. M. Landymore, Flag Officer Atlantic Coast, in April.

DR. FOOTE RETIRES

HAPLAIN THE REV. Dr. Ernest G. B. Foote, Protestant Chaplain General of the Armed Forces for the past three years, will proceed on retirement leave this summer.

Dr. Foote was born on Aug. 6, 1910, at Barney's River, Pictou Co., N.S., and graduated in theology from the Presbyterian College of Montreal in 1936.

He entered the Navy in January, 1941, from a parish at Oxford, N.S., serving until 1944 in various Canadian naval establishments when he became Command Chaplain, RCN headquarters in Britain. He was appointed Protestant Chaplain of the Fleet in December, 1945.

Dr. Foote was awarded the OBE on Jan. 1, 1946, for his war services. The citation accompanying the honour said it was "for untiring, unselfish and unstinted devotion to duty.

"Chaplain Foote, as one of the senior Protestant chaplains of the Canadian Naval Service, proceeded to the U.K. early in 1944 and assumed the appointment of Command Chaplain there. He has at all times, devoted himself to the welfare of all ranks and ratings and, through his personality and his organizing ability, ensured that none should be without spiritual and physical comfort and advice."

In 1951 he received the honorary degree of Doctor of Divinity from the Presbyterian College of Montreal, one of the youngest clergymen in Canada so honoured.



REV. DR. E. G. B. FOOTE

Dr. Foote made frequent tours of a naval parish which at times extended over half the world. He served with Canadian destroyers in the Korean war theatre.

He was appointed Deputy Chaplain General (P) of the Armed Forces in 1958 and as Chaplain General in February 1962. At that time he was promoted to Chaplain VI, corresponding to the naval rank of commodore.

Career Began In Tsarist Russia

A boyhood in Tsarist Russia, service on the Eastern Front and on special missions to St. Petersburg for the British in the First World War, a decade in India with the Calcutta Electric Supply Corporation, Second World War service with the British Admiralty, and 19 years—including two extensions of service—with the naval section of the Canadian civil service, specializing in fire control, add up to 67 years jammed with memories for W. H. Chandler.

Russian memories date from the mutiny, pogrom and abortive revolution of 1905 when "shells from the mutinous Russian battleship *Potemkin*—then anchored in Odessa harbour— whistled over the heads of my father and me.

"At one stage of the pogrom, my mother and I were beseiged in our apartment for a full day and a night

because we were living in the Jewish quarter of Odessa."

In 1910, at the age of 12, he was sent to Queen Eizabeth school in Cranbrook, Kent England.

Things then went smoothly until the outbreak of war in 1914 when the 16-year-old schoolboy was trapped in Odessa on a summer holiday with his family and not allowed to leave Russia. For the next three years he continued his education studying with a professor of the university of Odessa.

In 1917 he enlisted in the Royal Naval Air Service Armoured Car Division in Russia and served under Cdr. Locker Lampson on the Eastern Front in Poland.

For a while, early in 1918, he served in HMS *Glory* at Murmansk and later returned to Britain with Cdr. Lampson.

After demobilization, Mr. Chandler enrolled in the Faraday House Electrical Training Institution in London Eng.,

graduating in 1921 with an honours diploma.

From 1924 to 1933 he was a charge engineer with the main generating station of the Calcutta Electric Supply Corporation.

Between his return to England and the outbreak of the Second World War, he was employed by various civilian companies.

After 1940 he served in several Admiralty posts in London and was transferred to Canada with the British Admiralty Technical Mission in 1944 and was responsible for inspection and production of the first naval gun mountings with metadyne auto control.

He joined the Canadian civil service in 1946 and has been employed since that time in design, layout, estimates and other problems connected with fire control and underwater weapon and detection systems.

Due for retirement in 1963, he finally left the government service this spring with the rank of Engineer Grade 5.

Padre with DFC To Add MEd Degree

One of the few persons in the RCN to hold the Distinguished Flying Cross, Chaplain (P) Clifford F. Waite, padre of the Fourth Canadian Escort Squadron, was to have more initials added to the list after his name.

On June 8, he was to be awarded a Master of Education degree by the University of Toronto in absentia. There was to be no cap and gown for Chaplain

Waite, scheduled to be with the squadron far out in the Pacific, carrying out his shipboard duties during a cadet cruise.

Earlier Chaplain Waite had earned his Master of Arts degree and bachelor degree in arts, education and divinty. He attended Acadia University, Wolfville, N.S., and Emmanuel College, associated with Victoria College, in Toronto.

Some of the courses toward the Master of Education degree were taken by correspondence and one other under RCN auspices.

Born in Toronto on Oct. 26, 1921, Chaplain Waite joined the RCAF as an AC2 in December 1941. By Nov. 1, 1945, he had become a flying officer and a month later he was awarded the Distinguished Flying Cross. He returned from overseas in March 1945.

He joined the UNTD in 1945, served for a time in the RCAF reserve and then joined the RCNR as a chaplain in 1961. He transferred to the regular force on July 18, 1963. He was serving in *Naden* before his recent appointment to HMCS *Qu'Appelle* for service with the Fourth Escort Squadron.

Chaplain Waite is married and has four children.

Pioneer Diver Leaves Service

A pioneer of the Royal Canadian Navy's diving and demolition organization, Lt.-Cdr. E. D. (Tommy) Thompson, of Victoria, retired in April after 26 years' service with the RCN.



Four seamen of a combined NATO anti-submarine force head for shore leave in Rosyth, Scotland. Ldg. Sea. Gordon Holstead of HMCS Columbia is followed by AB Bernard Rirch of HMS Leander, B/M Raymond Andrilla of the USS Hammersberg, and FM Baastern Kplumant of the Netherlands ship RNMS Overjissel. The four ships joined forces in February and are sailing together until mid-July when Exercise Matchmaker ends off Norfolk, Va. This is the first NATO anti-submarine squadron to be formed and worked together for an extended length of time. (HS-77500-72)



LT.-CDR. E. D. THOMPSON

He is the last serving member of Canada's first Underwater Bomb and Mine Disposal Team, the basis of the present Navy "frogmen" organization.

Called up from reserve service as a stoker, Lt.-Cdr. Thompson joined the regular force and became an instructor at HMCS Naden early in the Second World War. Later he served as an engineer in HMC Ships Vancouver and Sudbury; then trained as a diving officer with the United States Navy in Washington, D.C.

He was a member of the diving team that helped clear Bedford Basin after the naval munitions depot explosion in 1945.

After completing the USN Master Diver's Course he continued training in the United Kingdom and again with the United States Navy in bomb and mine disposal techniques.

As officer in charge of the RCN's Clearance Diving Trials and Development Unit, he played a leading role in the design and development of recompression chambers now used by the RCN.

The veteran diving officer has started a new career as hyperbaric engineer with the University of British Columbia Faculty of Medicine in Vancouver. The hyperbaric oxygen chamber, to be installed in the Vancouver General Hospital, will be the first of its kind west of Toronto. Made possible by a grant from the Heart Foundation to cardiac specialist Dr. W. G. Trapp, the new unit will be used primarily for research purposes.

THE FIRST TO DIE

H ALF A CENTURY ago, on Nov. 1, 1914, four RCN midshipmen who died in the Battle of Coronel became the first battle casualties of Canada's young naval service. A little more than 25 years later, a native of Moose Jaw, Sask., was the first Royal Canadian Navy battle casualty of the Second World War. He is also believed to be the prairie city's first serviceman killed in that war.

Able Seaman Rodney Trevor Woodward, born and raised in Moose Jaw, was killed in action on July 19, 1940, in a machine-gun engagement with two ME 110 aircraft in the North Sea while serving in a Royal Navy anti-submarine motor boat.

Ironically, AB Woodward was on a three-month extension of his overseas draft taking training for motor boat coxswain with two other Canadian volunteers. He had qualified as a submarine detector in England earlier. The funeral was held at Yarmouth, England, on July 22, 1940.

AB Woodward, son of William and Ada Woodward, of Moose Jaw, was born on May 2, 1920. He completed Grade IX at Moose Jaw Central Collegiate before entering the RCN as a boy (seaman class) on May 5, 1937.

He trained at *Naden* and in the destroyer *Skeena* and was rated an ordinary seaman a year later. Ten months in the destroyer *St. Laurent* elapsed before his return to *Naden* and promotion to AB. In November 1939 he was sent overseas for a submarine detector's course. He had passed professionally for leading seaman on the West Coast

Initially he was attached to HMS Victory but in May 1940 HMS Osprey became his parent establishment while



Sea Cadet Robert J. Keehn, 18, of Drumheller, Alta., one of the group of sea cadets who journeyed to the Far East this spring in the Saskatchewan, Mackenzie and Beacon Hill, was chosen to sound "The Last Post" at Sai Wan Cemetery, Hong Kong, at the remembrance services held there by the ships. (CCC2-1750)



Part of Sai Wan Cemetery, Hong Kong, showing the portion where Canadian war dead lie buried. New skyscrapers rise on the mountainside toward the sea. The ship's companies of the Saskatchewan, Mackenzie and Beacon Hill remembered the defenders of Hong Kong when they called at the Far Eastern metropolis recently. (CCC2-1829)

he was serving in Motor Anti-Submarine Boat 8. In June the boat shifted to the jurisdiction of HMS Watchful. In July, the fatal action took place.

Surviving him besides his parents were four brothers and a sister. Records show him to have been five feet, 10½

inches tall, weighing 145 pounds, with brown eyes, dark brown hair and medium complexion.

Character assessment was "Very Good," efficiency "Satisfactory" throughout his all-too-brief naval career.

THE MANY USES OF HELICOPTERS

SUBMARINE HUNTING, troop carrying and rescue operations—these are the best known and most dramatic uses of the military helicopter. Reconnaissance, cargo lifting, liaison flights and a dozen other tasks testify to its versatility.

Introduced to the Canadian Armed Forces in 1948, eight years after Igor Sikorsky, the inventor, flew his first, the Sikorsky H-5 gained fame for its rescue work. Also used for training pilots at the Joint Air Training Centre at Rivers, Manitoba, it remained in RCAF service until 1964.

The RCAF obtained the Vertol H-21A, H-21B and the H-44 during the 1950s to supply northern posts during construction of the Mid-Canada radar line and for search and rescue.

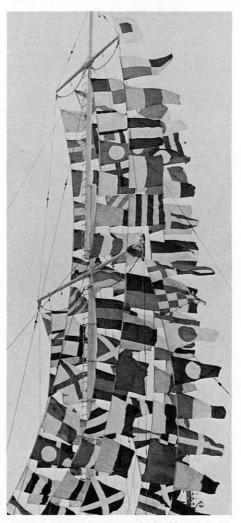
The new helicopters for the Royal Canadian Air Force and the Canadian Army has come in the shape of Vertol's new tandem-rotor gas turbine CH-113 series. Eighty-three feet long from tip to tip of its twin rotors, it stands 17 feet high and weighs about 10 tons fully loaded. Two General Electric gas turbine engines give it sufficient lift to carry 25 fully equipped troops, 15 litter patients or two and a half tons of cargo over the distance of 200 miles at speeds of 150 mph. The water-tight hull gives emergency flotation capability.

The RCAF version of this aircraft has an added refinement or two for the specialized job of search and rescue. It is fully instrumented and has a semi-automatic pilot. Extra fuel is carried, doubling its range to 400 miles, and flotation tanks add stability on the water. Six have been ordered by the RCAF and 12 by the Army.

In the Army role the new CH-113 are called the "Voyageur". Capable of carrying small vehicles as well as troops, the Voyageur joins the present Army fleet of Hiller CH-112 reconnaissance and liaison helicopters.

Army helicopters are flying reconnaissance missions with the armoured corps in Germany as well as providing command and liaison flights for the commander and his staff. Since 1962, the CH-112 has given a new look to reconnaissance, flying at two to six feet above the ground in "nap of the earth" flying to avoid detection.

The Royal Canadian Navy started its helicopter operations in 1951 with the establishment of Number One Helicopter Flight. This squadron was first equipped with three Bell HLT-4s and



"Can you read me?" It looks like a signalman's nightmare but actually it's just washday at the Communication Division of the Fleet School at Cornwallis. After a long winter's storage these flags were being aired and made ready for use by incoming courses of signalmen. (DB-19682)

began training for roles such as pilot training, photography and land-sea rescue. Number One Helicopter Flight later became known as Utility Helicopter Squadron 21 (HU-21) and was equipped with Sikorsky HO4S2's and HUP Piasecki helicopters. The Bells were embarked on HMCS Labrador during her historic navigation of the Northwest Passage in 1954. Both HUPs and Bell HTLs continued to serve on the Labrador until she was turned over to the Department of Transport in 1958.

In 1955, a helicopter test and evaluation squadron formed at HMCS Shearwater, the naval air station near Dartmouth, N.S., and equipped with six Sikorsky HO4S-3s was named HS-50. The helicopters used in HS-50 were basically the same as the HO4S2s except for a more powerful engine and provision for mounting sonar gear and one torpedo. The HO4S3 carried a crew of three (two pilots and one sonarman).

In 1960 the RCN chose the CHSS2 "Sea King" manufactured by Sikorsky as a replacement for its aging HO4S3 and for anti-submarine warfare. The first Sea King was delivered to the RCN in June 1963.

Recently HS-50 turned over its last HO4S3 to HU-21 and is now fully equipped with CHSS2 helicopters. HS-50 operates from the naval air station and the aircraft carrier HMCS Bonventure.

The Sea King is an all-weather, day and night helicopter designed specially for anti-submarine work. It is equipped with automatic main rotor and tailpylon folding devices, winch down equipment, navigation, detection and weapons systems. The CHSS-2 also includes a sophisticated auto-pilot which enables it to hover automatically.

These all-weather helicopters will soon be operating from the decks of destroyer escorts following the completion of night trials being conducted by the air station's experimental squadron aboard HMCS Assiniboine. A device conceived by the Royal Canadian Navy and engineered by Fairey Aviation Co. Ltd., of Dartmouth, N.S., assists the heavy helicopter in landing on the small deck spacee of a destroyer escort using a haul-down method and a rapid securing device known as "Beartrap".

The Sea King carries a crew of four (two pilots and two sonarmen), has an endurance of four hours or 500 nautical miles and weighs 19,100 pounds fully loaded. It is a single rotor, twin gas turbine helicopter.

With anti-submarine gear removed it can carry up to 25 troops internally or 6,000 pounds of cargo externally in a sling load.

THE BENEVOLENT FUND

POUNDED JUST as the war in Europe ended, the Royal Canadian Naval Benevolent Fund this year observes its 20th anniversary—with three of the original nine directors still active with the fund.

The durable three are Rear-Admiral G. L. Stephens, for eight years president of the fund (then known as the Canadian Naval Service Benevolent Trust Fund), Vice-Admiral H. G. DeWolf, reelected president at the annual meeting in Ottawa on May 17, both of Ottawa, and Captain Joseph Jeffreys, of London, Ont.

Vice-Admiral K. L. Dyer, Chief of Personnel, was elected honorary president, succeeding Vice-Admiral H. S. Rayner, former Chief of the Naval Staff.

Admiral Dyer reviewed the integration program, outlined the workings of the cyclic system of manning and operating the fleet and, in general, brought the 50 delegates up to date on Canada's defence plans.

Financial assistance amounting to \$204,088 was extended to 593 applicants last year, it was announced at the meeting.

The financial assistance consisted of grants of \$73,808 and loans of \$130,280.

The death of two long-time members of the organization, Cdr. Norman L. Pickersgill and Vice-Admiral H. T. W. Grant was noted in the address of the president, Admiral DeWolf.

"Cdr. Pickersgill was a founding member and rendered faithful service for 19 years," said Admiral DeWolf. "Vice-Admiral Grant was elected to membership on Jan. 10, 1952, and became a director in May of that year. On April 9, 1956, he became the fifth president and rendered outstanding service in that office until May 28, 1962. His life-time regard for the welfare of naval personnel and their dependents is well known to us all. Following a short period of inactivity he was persuaded to accept re-election to the board in November 1964 and actively assisted the Central Claims Committee and he held office up to the time of his death."

The election of officers saw Admiral DeWolf again chosen as president and chairman of the board of directors. It also saw the election of Rear-Admiral R. A. Wright, former Comptroller in the RCN, to the new position of executive vice-president. Vice-presidents are Lt.-Cdr. H. D. Evans, Chaplain (P) A. G. Faraday and Cdr. I. A. MacPherson.

Other members of the board of directors are Lt. A. B. Campbell, CPO R. J. Carmichael, A. B. Coulter, Rear-Admiral W. B. Creery, Cdr. T. H. Crone, Vice-Admiral H. S. Rayner, CPO R. N. Langton, Cdr. J. M. Leeming, Miss A. I. (Nan) McPhee, Cdr. Bruce S. Oland, Chaplain (P) Earl Sigston, Cdr. I. A. McPhee and Captain R. P. White. Lt.-Cdr. Harry McClymont continues as general secretary and treasurer.

Admiral DeWolf in his presidential address spoke of the steady and remarkable growth of the fund. One of the factors to which he drew attention was the more flexible investment policy which has greatly increased the income of the fund.

"The broad and generous policies created by the founding directors have proved capable of expansions and contractions to suit the ever-changing patterns of assistance required," he said.

THE ROYAL					
Incorporated	under Par	rt II (f The	Compan	ies Act)

Summary of Transactions for the year ended March 31, 1965 and Statement of Financial Position as at that date

Balance at April 1		2,831,865
During the year the Fund was increased by:		
Bond interest Donations received (Schedule 1) Profit on sale of investments Grant from Government of Canada Recoveries on loans previously written off Bank interest	11,3,652 51,973 11,261 2,000 370 130	215,386 3,047,251
and decreased by:		
Grants to members and ex-members of the Royal Canadian Navy and their dependents Administrative expenses (Schedule 2) Increase in provision for uncollectible loans Donation of mobile canteen to Atlantic Command Investment management fee and bank service charges Balance at March 31	78,847 41,871 7,807 7,687 4,809	11,1,021 \$2,906,230
which was represented by:		
Cash Advances to District Administrators of the Department of Veterans Affairs Investments, at cost (Schedule 3) (Market value \$2,712,856 Par value \$2,785,000) Interest accrued on bonds Loans receivable (Schedule 1) Less: Provision for uncollectible loans	160,կ70 կ8,1կ1	17,90h 1,091 2,7h0,770 h1,323 112,329
Accounts receivable - sundry Prepaid expenses		638 288
Less: Cash held in suspense - HMCS "Ontario" - Citizens Repatriation League Incorporated Accounts payable	6,500 1,21h 399	8,113 \$2,906,230

Approved on behalf of the Board

HALWOY Director

Director

I have examined the above Summary of Transactions and Statement of Financial Position and have reported thereon under date of May 11, 1965 to the President and Members of the Royal Canadian Naval Benevolent Fund.

Anherene,

Auditor General of Canada.

"One example I might cite is in the field of education. In 1945 it was felt the assets and future earnings of the fund would not be sufficient to enable a scholarship or bursary program to be undertaken. Our income increased shortly after and co-incident with this was the need to assist Second World War veterans taking university training under the Department of Veterans Affairs program. A modest amount of assistance was rendered to those veterans by way of grants and loans to enable them and their dependents to weather the vicissitudes of university life.

"It is worth noting the fund sustained very few losses on loans under this program, which extended up to 1951. This was followed by a period during which few requests were received until the war-time children of ex-members of naval forces reached the senior high school, university, teachers' college or professional training level.

"The general policy of the fund is now to render assistance that ensures that children of naval and former personnel who are capable of proceeding to higher education are not deprived of their opportunity. Proper account is taken, of course, of the financial ability of parents, scholarship or bursary funds and the government student loan plan. I would anticipate that our assistance in the educational field will increase during the next three to four years.

"Another example of the flexibility of original policy is in the field of loans. Originally an attempt was made to remain out of this sphere of assistance but when the demand became evident a loan program was instituted, later to be withdrawn and, later again, revived.

"Experience has shown that any loan program must be carefully controlled and, as I reported to you last year, a conservative attitude was adopted with regard to loans for consolidation of debts. It is significant to note these requests have increased from the \$1,000 to \$1,500 class to an average of \$3,000 to \$4,000. During the past year we have had requests for loans to consolidate debts in excess of \$6,000.

"We are still pursuing the conservative policy in this matter and in lieu of committing large sums of money for the consolidation of debts we have, when possible, formed pooled accounts which, with the assisstance and cooperation of the credit granting fraternity in Canada, enable our people to repay their indebtedness in an orderly fashion. In many cases this kind of assistance has saved a naval career and prevented a breakdown of mental

health. At the present time we are administering 16 such pools. I should state here that in all such cases the normal elements must exist which would justify the fund's assistance.

"We have continued our policy of having our investments managed by Messrs. Fullerton, MacKenzie and Associates. At the beginning of April 1964 our portfolio contained Dominion and provincial bonds with a par value of \$2,700,000 and a market value of \$2,601,637. During the year your executive eommittee authorized the investment manager to trade in bonds of Metropolitan Toronto and Montreal which gave him a greater facility in the management of the portfolio.



"At the close of the fiscal year just ended, the par value of our portfolio was \$2,785,000 and the market value was \$2,742,856. It will be noted from the financial report that the lowest interest rate on bonds is 5 per cent with a top interset rate of 5 3/4. Our interest income based on a previous 12 months has been increased by approximately \$15,000. At the end of March 1965 the capital worth of the fund was \$2,905,900 whereas we commenced operations in July 1945 was \$201,184 transferred from the original trustees.

"On Friday, Aug. 7, 1964, I formally presented the mobile canteen to the Atlantic Command, with the keys being handed over to Commodore J. C. Pratt. In subsequent letters from the Commanding Officer, HMCS Stadacona, we are advised this vehicle is filling a long-felt need and new operating procedures are under study to extend the services provided by the canteen.

"Throughout the year, much thought has been given to the status of the Royal Canadian Naval Benevolent Fund in relation to the integration of the Canadian Armed Forces and I deem it expedient again to assure both the voting members of the fund, serving personnel and all former personnel and their dependents that the fund will continue to operate in the future, as it has in the past, under our existing charter, subject only to depletion of our assets. The fund is anxious and willing to assist in an integrated welfare program, if and when such a welfare program is organized by the Armed Forces.

"The fund will continue to require donations from existing sources and it is particularly hoped that the voluntary personal assignments will continue. To all serving personnel who have supported us in this manner, I express our deep appreciation.

"During the year under review your fund accepted the responsibility of administering a small trust of 2,000 on behalf of the Citizens' Repatriation League of Metropolitan Toronto. This minor trust is used as adjunct assistance to that of our fund so that an amount of \$600 can be shared equally for the benefit of ex-naval personnel living in Toronto.

"The RCNBF Disbursement Fund, administered by the Department of Veteran Affairs, continues to render valuable assistance in small amounts to meet emergencies and prevent hardship.

"In June 1964 Miss Calvera Manuel resigned as secretary of the Eastern Claims Committee and the fund suitably expressed its appreciation of her past services. On Nov. 1, 1964, CPO M. H. Keeler assumed these duties and his place in head office was taken by CPO R. C. Crawford, who continues as assistant to the general secretary.

"To the officers and staffs of the Army Benevolent Fund and the RCAF Benevolent Fund I extend my thanks for their continued co-operation and assistance

"I wish to extend my thanks to the chairman and members of our three claims committees and to their staffs for their support and services and to the general secretary and all members of the head office staff.

"During the year we have continued to receive the co-operation and assistance of the Department of National Defence, the Royal Canadian Navy, the Department of Veterans Affairs. the Royal Canadian Legion and the Auditor General and his staff; on behalf of the fund I extend to them our grateful thanks."

VICE-ADMIRAL GRANT DIES

THE DEATH of Vice-Admiral Harold T. W. Grant, former Chief of the Naval Staff, occurred suddenly on Saturday, May 8, at his home in Rockcliffe Park, suburb of Ottawa. He was 66 years of age. Burial was on May 11 at Fairview Cemetery, Halifax.

A veteran of both world wars, Admiral Grant continued to take an active interest in naval affairs after his retirement at the end of 1951 and was president of the Royal Canadian Naval Benevolent Fund from 1956 to 1963.

His passing was mourned by his many friends in the service and his memory was eulogized in prominent Canadian newspapers.

"After his retirement as Chief of the Naval Staff he remained a familiar figure in Ottawa, erect and energetic," said *The Ottawa Journal*. "His death brings proud memory of all those who went down to the sea in ships in war and, led by good captains such as he, kept open the highways of freedom."

Said the Montreal Gazette: "Like the late Admiral Percy Nelles, Admiral Grant gave leadership to the effort to make the RCN an essentially Canadian force—a matter for pride and dedication.

"Those who met him found Admiral Grant a man with a lively sense of humour, an absolutely disarming modesty, and with eyes whose sparkle had not been at all dimmed by the responsibilities and perilous experiences of so long a career at sea.

"Such men are a reminder of what a precious heritage Canada has in the tradition of its Navy, and the need that this tradition be recognized and upheld".

Admiral Grant had been serving as Chief of the Naval Staff for slightly more than a year when *The Crowsnest* was founded in 1948. He accepted the essentially honorary position of editorin-chief of the new magazine and proceeded to give it the enthusiastic support and sound advice that assured its success.

In a message in the first issue of *The Crowsnest*, November 1948, Admiral Grant said:

"We are aiming for a magazine which will have something in it of interest to every man in the Navy; to which everyone in the Navy may contribute ideas, information, views and stories—ficitional or fact; which, by sound editing, will have dignity and life, and

which will help us to know our service and each other better."

Even after he left the Navy on retirement, he continued to show an interest in the welfare of the magazine, as he did in all other aspects of naval life.

Harold Taylor Wood Grant was born in Halifax on March 16, 1899. His father was the late Hon. MacCallum Grant, Lieutenant-Governor of Nova Scotia.

He entered the Royal Naval College of Canada at Halifax in 1914, graduating in December, 1916. His first sea appointment came in February, 1917, when as a midshipman he was appointed to HMS *Leviathan*. Subsequently he saw service in HMS *Roxborough* and HMS *Minotaur* in the Atlantic Ocean and North Sea.

Promoted to the rank of sub-lieutenant in 1919, he joined HMS Warwick the same year and served in the Baltic Sea for almost two years.

In 1923, after service with the Royal Navy, during which he specialized in navigation, he returned to Canada to join HMCS *Patriot*, a destroyer, and a year later went to the West Coast for



VICE-ADMIRAL H. T. W. GRANT, CBE, DSO, CD

service in HMCS Patrician, also a destroyer. From 1927 to 1931 Admiral Grant again served in ships of the Royal Navy, including HMS Warspite and HMS Queen Elizabeth.

He was appointed to the newly acquired Canadian destroyer Saguenay in 1931, and served in this ship until he was appointed Director of Naval Plans in 1934.

The following year he was named Director of Naval Reserves, with the rank of commander. In 1936 he took a naval staff course in the United Kingdom, later serving on the staff of the Commander-in-Chief, Atlantic Fleet, in HMS Nelson.

On his return to Canada in 1938, Admiral Grant was appointed commanding officer of the destroyer HMCS Skeena, and was in command of this ship during the visit to Canada of Their Majesties, King George and Queen Elizabeth in 1939, the Skeena embarking the Royal Party for passage to and from Prince Edward Island.

Serving at sea in the *Skeena* at the outbreak of war, he was later appointed to the staff of the Commanding Officer Atlantic Coast, in Halifax. He was promoted to the rank of captain in July 1940 and was appointed Director of Naval Personnel at Headquarters in September of the same year.

From September 1942 to March 1943 he was Captain (D), Newfoundland, and as such was in charge of the escort fleet operating out of St. John's.

Admiral Grant was appointed in command of the Royal Navy cruiser *Diomede* in March 1943 and later commanded the cruiser HMS *Enterprise*.

For his part in a Bay of Biscay action on Dec. 28, 1942, Admiral Grant was awarded the Distinguished Service Order, for "gallantry and skill and good service in command of HMS *Enterprise* in an action with enemy destroyers."

This action is described by Joseph Schull in *The Far Distant Ships*, official account of Canadian naval operations in the Second World War, as follows:

"On the morning of Dec. 26, a fast German merchantman, a blockade runner with cargo from Japan, was about 500 miles westnorthwest of Cape Finisterre, inward bound for one of the French Biscay ports. Eleven German destroyers put out from Brest and Bordeaux to escort her in. Five of the destroyers were of the Narvik class, mounting five 5.9-inch gans, faster and more powerful than Tribals. The other six were Elbings, smaller ships with a main armament of four 4.1-inch guns. By the 27th they were well out of the



Bay, steaming in two columns for their rendezvous with the blockade runner.

"They were not to meet her, and the rendezvous which awaited them was of a different kind. The blockade runner, apparently unknown to the destroyers, was sunk by aircraft of Coastal Command at around 4 o'clock in the afternoon of the 27th, while still well to the west of her rendezvous. The German destroyers en route to meet her had been reported by other aircraft and the Admiralty was determined that as tew as possible get back.

"The Glasgow and Enterprise, the latter ship commanded by Captain Grant, were ordered to rendezvous at a point some 300 miles northwest of Cape Finisterre, from which position it was hoped that they could cut the Germans off from base . . .

"Daybreak of the 28th found the Germans still steaming west, ignorant of the fact that their blockade-runner was sunk and that they themselves were now the quarry. They were moving seaward in the westerly course, while the British ships, some 45 miles to the south of them, were steering almost due east. By a little after 9 in the morning the cruisers, now south of the Germans, altered to the northwest in order to place themselves between the enemy and his base.

"Although the weather was rough, both German and Allied aircraft were overhead; and one of the enemy planes must have reported the movements of the cruisers. At 11 o'clock, apparently on order from German Naval Command, the destroyers reversed their course and turned back towards the French coast.

"They had waited too long. The Glasgow and Enterprise were now between them and the land; and at 13 minutes after 1 the cruisers broke out their battle ensigns. Twenty-five minutes later the first of the German ships appeared, hull down on the western horizon. At 1.46 the Glasgow opened fire at a range

of 18,000 yards; and two minutes later, at 20,000 yards, the first salvoes from the *Enterprise* went arching through the gloomy afternoon.

"The German destroyers outweighed the cruisers in total firepower by about five to two, and for a time they seemed determined to make a fight of it. Throwing out a profusion of smoke floats, they came straight on, and, as the range closed, the straddling salvoes which splashed about the Glasgow and Enterprise demonstrated the respectable quality of German naval gunnery. The cruisers, for their part, found the number of targets almost embarrassing, and ranging difficult to maintain on any one ship.

"The action developed with the opponents roughly paralleling each other on a southeasterly course. The Glasgow, the larger of the two cruisers, made the best going of it in the heavy seas, and was drawing ahead. The destroyers were taking punishment, but the heavy smoke about them made it difficult to estimate the damage and their gunfire continued accurate. German planes had also arrived overhead. At 2.25 a glider bomb winged down and crashed into the sea near the Glasgow. Two minutes later the Enterprise received a light hit from a German shell, and then a second glider bomb sent up a huge explosion in the sea 400 yards on her port quarter.

"The cruisers had little difficulty in fighting off the aircraft, however, and their fire against the destroyers continued unabated. The Germans now altered away and set off northward, while the *Enterprise* ran in to head them off. Through the smoke she observed a hit on a destroyer; then she saw the destroyer come to a stop. Drawing nearer she engaged two of the other destroyers and was met with heavy and accurate fire which straddled her consistently, one shell carrying away her aerial. The wreathing clouds of smoke about the Germans, the high seas and the multi-

plicity of targets were still making it difficult to observe the full effect of their fire except when, as the *Enterprise's* gunnery officer mildly describes it 'structural alteration took place; e.g. in the case of the destroyer whose funnel was shot away and went over the side.'

"In a few more minntes, seven of the destroyers abandoned the action and turned off to the north. Four remained in the area, of which one, heavily hit. was limping away behind a smoke screen. Another was stopped; the third was still in action with the Glasgow: and the Enterprise was engaging the fourth. The latter two went down by 4 o'clock and the ship which had stopped was finished off a little later. With darkness coming on and ammunition running low, the cruisers gave up pursuit of the ship which had made off behind smoke. It was known to be heavily damaged, and among the seven which had made their escape earlier

many hits had been scored. The action was the largest effort made by enemy destroyers during the latter part of 1943. It had been largely involuntary, and its results could scarcely have been encouraging to the German High Command."

The Enterprise, under Admiral Grant's command, also took part in D-Day landings, leading in the assault force to "Utah Beach" and operating as bombardment ship. Mentioned in despatches for action off the coast of France, he was subsequently wounded in action at the bombardment of Cherbourg. For his services in the latter engagement he was awarded the American Bronze Star Medal.

Early in 1945, he commissioned as commanding officer Canada's newest cruiser, HMCS *Ontario*, and took her by way of the Suez Canal to the Far East, arriving too late, however, to see action.

He was appointed to be Additional Commander of the Military Division of the Most Excellent Order of the British Empire in January, 1946, for "exceptionally competent seamanship and gallantry at sea, and administrative ability ashore."

On Feb. 1, 1946, he assumed the post of Chief of Naval Administration and Supply and as Third Member of the Naval Board. He was promoted to the rank of rear-admiral on Feb. 28, 1946.

He was appointed Chief of the Naval Staff and promoted to the rank of vice-admiral on Sept. 1, 1947. He held this appointment until December, 1951, when he proceeded on retirement leave after 37 years in the RCN.

Admiral Grant is survived by his wife, a son, John MacGregor, and two daughters, Sarah and Caroline (Mrs. Christopher Gill).

A non-military funeral at St. Andrews Presbyterian Church, Ottawa on May 11 was attended by many prominent Canadians from public and private life.

RESEARCH VESSEL APPROVED

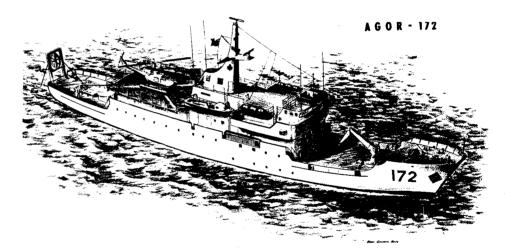
A PPROVAL has been given for the construction of a 2,080-ton research ship for operation in the Atlantic Ocean by the Defence Research Board's Naval Research Establishment, Dartmouth, N.S., it has been announced by Hon. Paul Hellyer, Minister of National Defence.

It is expected tenders will be called this fall, with construction to begin next year. Completion is scheduled for 1968 and the cost is estimated at \$7 million.

The vessel's primary function will be to carry out oceanographic research in relation to anti-submarine warfare. At the same time she will contribute significantly to general scientific knowledge of the water adjacent to Canada's east coast.

At present designated AGOR 172, the ship will be larger than the newly-built CNAV Endeavour, which came into service on the West Coast in March. She will be 17 feet longer than the 236-foot Endeavour, will draw approximately 15 feet of water and will have a displacement of 2,080 tons as compared with the Endeavour's 1,564.

Because most of her work will be concerned with underwater acoustics, particular care will be taken in the design to make her as silent as possible. The hull will be constructed to minimize water noise and machinery, including the generators which supply power for the electric propulsion motors,



are resiliently mounted to reduce hull vibration and underwater noise to the minimum.

A firm of acoustic consultants has been engaged to advise on procurement and installation of quiet machinery.

Electric power for scientific equipment, communications facilities and lighting is supplied from batteries while the ship is stopped for hyper sensitive acoustic experiments.

Research facilities will include three laboratories, a scientific plotting room, a handling room for the explosives used in underwater acoustic research, as well as a wide variety of special equipment.

Anti-roll tanks within the hull will facilitate precise scientific measurements and operations from a helicopter

landing platform astern. The hull will be reinforced to permit operations in ice.

Drive will be provided by twin screws and a bow "thruster" unit will ease handling and improve the ship's ability to manœuvre. Her engines and twin rudders will be controlled from any one of four corining consoles, one on the bridge, two on the bridge wings and one aft.

The vessel will be manned by a crew of 36 civilian officers and men, who will support the activities of up to 15 scientists.

The design has been developed by the Royal Canadian Navy's naval architects and engineers working in close collaboration with scientists of the Defence Research Board.



Typical of the jobs done by the workhorse naval auxiliary fleet in naval dockyards is the helping hand the 40-foot harbour tug Beamsville gives the ocean escort HMCS Sussexvale at Esquimalt. (E-79099)

THE AUXILIARY FLEET

IN AN OFFICE located on a rocky bluff overlooking the Naval Dockyard in Esquimalt works a man who runs a fleet more than twice the size of the two escort squadrons which make up the Pacific Command of the Royal Canadian Navy.

In Building 71 is a naval officer known to his compatriots as the Queen's Harbour Master, a job that the incumbent, Lt.-Cdr. A. H. M. (Tony) Slater, regards as probably one of the most interesting in the dockyard and among the best of his 24-year service career.

From his office emerge the orders for the shifting of the destroyer escorts and ocean escorts around the harbour, the allocation of berths for these ships, the activities of a vast menagerie of naval auxiliary vessels, the conveyance of personnel to and from installations across the harbour, and a hundred and one other odd jobs.

The terms of reference for the Queen's Harbour Master are laid out in a book known as *Pacific Coast Standing Orders*. In general, it tells what to do but not how to do it, and the Queen's Harbour Master says that, as far as his

job is concerned, it is as well that no specific direction be given.

Lt.-Cdr. Slater explains that while there are certain basic rules and regulations that must be followed, a great many decisions must be made from common sense and made quickly.



Operations officer and dispatcher on the staff of the Queen's Harbour Master is W. R. Symes, whose office offers a panoramic view of the entire dockyard. By telephone, radio and loudhailer, Mr. Symes issues berthing instructions to RCN ships and vessels of the auxiliary fleet. (E-79313)

Therefore, experience is the great teacher. The know-how is not likely to come from a book, at least not in this job.

"Fortunately," he adds, "I've got a great crew of people to work with, all keen and dedicated men. John Williams, Supervisor, Auxiliary Vessels, and the senior civilian member of the team, has had 19 years with the department, and there are few problems that can't be solved under his experienced hand."

There are 225 people on the staff of the Queen's Harbour Master, seven of them in the office and the remainder at work in the 39 tugs, barges, lighters, personnel carriers and research vessels which are, in naval jargon, on the "slop chit". Only one man, the QHM himself, is navy. The rest are civilians, but men wise in the ways of the sea.

All things considered, the QHM carries a substantial load on his shoulders. His prime responsibility is to the Flag Officer Pacific Coast for the control of naval ships and auxiliary vessels within the confines of Esquimalt Harbour. This involves RCN ships, visiting naval vessels from the United States, Britain and other countries, and the

movement of ships into drydock, or from one jetty to another, as the need arises.

When an inbound ship passes Fisgard Light at the harbour entrance, it immediately comes under the control of the Queen's Harbour Master, who assigns a berth for it and arranges for a body of men, called berthing party, to help the ship secure alongside the jetty.

The QHM also establishes and maintains mooring buoys in the harbour, provides visiting ships with pilots, orders out tugs to help ships secure to jetties, moves ships to local shipyards for repair or conversion and keeps the harbour clear of logs and assorted flotsam which drift in daily with the tide.

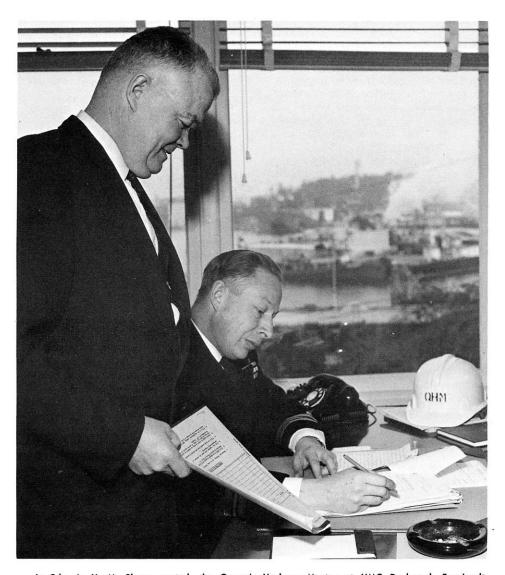
The QHM's second responsibility is the operation and maintenance of all auxiliary vessels, and he is justly proud of this workhorse fleet and the men who man it. The auxiliaries include a wide assortment of vessels that do an equally wide assortment of jobs. Among the fleet are two recently acquired barges. The YBZ-61 is a huge floating vacuum cleaner which cleans out the fuel tanks and bilges of warships. The YBD-3 is a deperming barge which makes ships less susceptible to magnetic mines. The Saint Anthony is a 151-foot, 622-ton ocean-going tug. The Heatherton and Clifton are 110 foot, 476-ton coastal tugs. The Adamsville, Beamsville, Lawrenceville and Marysville are small, 40foot harbour tugs.

Then there are the Songhee, Nipkish, and Wildwood, ships which are classed as range vessels. The Oshawa and Whitethroat are oceanographic research ships working with the Pacific Naval Laboratory. CNAV Endeavour which was accepted on March 9 and comes into service this spring, is part of the auxiliary fleet.

In addition to these, there are several YFPs, or yardcraft, personnel, which shuttle hourly between the dockyard, Colwood and *Naden*. There is also a crane lighter—a barge with a crane built on it and probably the ugliest unit in the fleet.

Another unit is an ammunition lighter, which supplies the destroyer escorts with "bricks" from the Rocky Point magazine. Then there is a small fleet tanker, the *Dundurn*, a sort of mobile gas station.

Perhaps the best known ship of the auxiliary fleet is HMCS Oriole, the Bermuda-rigged ketch in which the RCN's future officers receive some of their earliest sea going experience. She is part of what is called the Auxiliary Training Fleet and is the only "commissioned" unit among the auxiliaries. As such, she carries an RCN command-



Lt.-Cdr. A. H. M. Slater, seated, the Queen's Harbour Master at HMC Dockyard, Esquimalt, manages the activities of a fleet of 39 tugs, barges, lighters and assorted other vessels. The senior civilian member of the team is John Williams, standing, Supervisor, Auxiliary Vessels. (E-79314)

ing officer and crew and is entitled to all the usual marks of respect accorded a naval vessel, plus a couple of others because she's sail rigged. Sailing ships, for instance, have the right of way over powered vessels at sea.

Keeping all these auxiliary vessels and the people who man them working as a well-oiled machine calls for a lot of work and, at times, a healthy sense of humour. There is a saying in the QHM's office that "the soft answer that turneth away wrath can surprisingly, on occasion, bring on apoplexy". This is when a sense of humour can help.

Those who run the show from the QHM's office are well equipped with both experience and a sense of humour. In addition to Mr. Williams there is G. F. Cassidy, the senior master, who in his time has commanded just about every vessel in the auxiliary fleet.

The operations officer and despatcher, W. R. Symes, is among the busiest, as hardly a minute goes by that he is not on the telephone, the radio or loud hailer giving instructions. J. S. Osborn, a retired RCN engineering commander, is the engineer officer, auxiliary vessels. His right hand man is A. M. Galbraith, the senior engineer officer.

A wealth of experience exists among the men in the barges, tugs and other vessels. Lt.-Cdr. Slater says that among them can be found men who started out as boy seaman in the 1920s, working on all kinds of ships and ferries that plied British Columbia waters from Alaska to the Straits of Juan de Fuca. Many are naval veterans. They know ships and the sea, for it is their life.

The ships of the auxiliary fleet are not glamorous craft and they carry no battle honours. They, and the Queen's Harbour Master, have but one purpose, and that is to serve the Fleet and keep it in all respects ready for sea. They serve it well.—R.G.N.



BADGES AND BATTLE HONOURS

OWN THROUGH the ages the mariner, regardless of the culture into which he happened to be born, fancied his ship to be possessed of a spirit or personality. To most she was almost a living entity, a being that given a certain set of circumstances could be expected to act in a certain way, and yet, like a woman, a creature of some mystery, for the nature of her response could not always be accurately forecast.

Similarly, through the centuries the sailor like other mortals has decorated his possessions, and more than that, has tended to adorn them in such a way as to give a distinctive individuality, a personality all its own. The sailor did this with his ship, sometimes as an expres-



sion of art form, sometimes as a response to some deeply embedded superstition and sometimes in the hope of frightening the enemy.

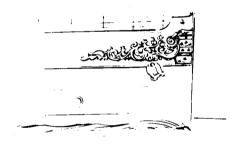
No doubt the ferocious figures that rode the stems of Viking pirate ships struck terror into many a heart as they drove ashore from out the misty sea. And the war galleys of one civilization after another in that cradle of human endeavour, the Mediterranean, sallied forth to battle, their bold beaks high at the bows leading the way. These and the great eyes painted on the bows of Chinese junks are not far removed from the motivation that made sailors of the Second World War paint massive sets of shark's teeth on the bows of submarines and motor torpedo boats and even on aircraft.

The mariner's ancient practice of giving his ship a special, individualistic appearance, whether it was the cut of her sails or the colour of her hull, undoubtedly stemmed from the pride he had in her and, of course, his desire to make her identity readily known. This trend came closest to perfection in the woodcarver's art, particularly as it was applied to the figurehead, that life-like form that graced the bows of countless numbers of ships. Sometimes it was a lion rampant or the griffin from mythology, sometimes a mighty warrior in armour, usually symbolizing the ship's name. But often as not it was simply the figure of a beautiful woman.

The only ship having a figurehead that was commissioned in the Royal Canadian Navy was the sloop-of-war, HMCS Shearwater. Equipped with both sail and steam power, she served Canada from 1914 to 1919. Just below her bowsprit as part of her stem she displayed the carved figure of the seabird known as the shearwater.

With the disappearance of the bowsprit and jib-boom and the arrival of the straight-stemmed hull, figureheads gave way, particularly in steel ships, to another form of bow embellishment. This was gilded scroll-work and armorial devices, usually cast in iron. Two examples of this survived right through the Second World War on the bows of HMC Ships Acadia and Cartier (the latter being better known to some as HMCS Charny).

For many years now, ships of the Royal Canadian Navy, like those of other fleets, have been readily recognizable in harbour or at sea by officially



designated name-plates or nameboards spelling out the ship's name, by pennants hoisted at the signal halyards or by hull numbers painted on the stern and both sides below the bridge structure. But the sailor still delights in that little touch of difference; hence the evolution of the ship's badge.

Badges are simply symbols of identity and their first use is lost in the mists of antiquity. Like language, the badge is a means of communication of ideas and, whether it was borne aloft on the standard of a Roman legion or on the bonnet of a Highland Scot, its bearer took great pride in it, just as he did in his battle-cry or motto.

In the Middle Ages, the display of badge symbols identifying individual men developed into a fine art and, so that men could recognize the symbols or badges of others, a body of knowl-

edge called heraldry evolved. To avoid duplication and the display of spurious arms, the granting of armorial bearings became a prerogative of the sovereign. By the latter part of the 19th century, when the ship's badge, albeit unofficial, gradually came into use in the Royal Navy, it was only natural that the rich heritage of heraldry in British life should come to the fore in the design of badges for HM Ships. In 1918, the Admiralty officially assumed control of the badges displayed in the ships of the Royal Navy. In Canada, Naval Headquarters did not take this step until 1946, but unofficial badges were to be seen in HMC Ships as early as the 1920s.

Generally, the between-wars destroyers, like the *Patrician* and the *Vancouver*, conformed to Royal Navy practice in designing their badges and casting them in bronze or brass. Certainly, the badges of the first *Skeena*, a leaping



salmon, and the first Saguenay, an Indian head, were creditable heraldic devices; in fact the same devices are used in the badges of the two ships bearing those names today. Even the old coalburning trawler Armentieres had a badge the design of which was based on the significance of the ancient French name.

When war boke out in 1939 all the River class destroyers had badges and in 1940 when the formerly American "four-stackers" joined the fleet, an effort was made within the ship's companies to design good badges, notably in the St. Francis, St. Croix and Columbia. But when the first corvettes became operational early in 1941, a whole new dimension was added to the technique of ship identity in the Royal Canadian Navy. This was largely an expression of the officers and men of the "wavy navy", the Royal Canadian Naval Volunteer Reserve, who manned those stout little ships and saw little point in standing on the dignity of the rules of heraldry. This was the arrival of the comic book character as the central de-

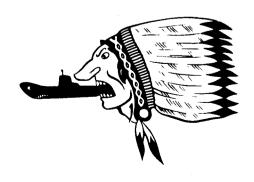


vice of the insignia invariably painted on the shield of the 4-inch gun on the forecastle.

No doubt such characters in brilliant colour on an otherwise grey topside gave the ship an identity all its own, and gave, too, a light-hearted touch to the long, grim battle in the Atlantic. Many of these badges expressed a goodnatured contempt for the enemy: the head of a fierce Indian crunching a cigar-like U-boat (HMCS Napanee); a shotgun-wielding "Daisy Mae" (HMCS Mayflower); a smugly contented cat with a fish-like U-boat clutched in forepaw (HMCS Timmins); a snorting trophylike moosehead in close proximity to a rapidly retreating Hitler (HMCS Moose Jaw). Others were plays on the ships' names: a phoenix-like devil beating a drum (HMCS Drumheller); a shapely damsel discreetly draped to form a "V" (HMCS Levis); the Queen of Hearts encountering a mud puddle without the benefit of the cloak of Sir Walter Raleigh, with dire results (HMCS Westaskiwin).

Though there were several pleas requesting machinery to institute officially designed and approved badges, Naval Headquarters firmly rejected the idea "until after the close of hostilities."

With the disposal of most of the wartime fleet and the demobilization of "hostilities only" personnel, the RCN gradually settled down to peace-time



duties and in due coure, in 1946, a Ships' Badges Committee was established to regulate insignia for HMC Ships. At first, an officer of the College of Arms in London was engaged to design the badges for the peace-time fleet, but soon the badges were being devised at Naval Headquarters.

In 1951 the present heraldic adviser, Lt.-Cdr. Alan B. Beddoe, OBE, RCNR (Ret), who had made substantial contributions to the development of ship's badges since the days of the Second World War, was appointed. It was largely owing to the artistic skill and sense of dedication of Mr. Beddoe that the RCN enjoys possession of one of the finest collections of heraldic badges in the world today.

When the name of a new ship or establishment is known or the establishment of a new naval air squadron has been ordered, the Naval Historian does the necessary research and provides the information to the Ships' Badges Com-



mittee. On instruction by the chairman, a contract is drawn up with the heraldic adviser to design the badge for the ship or squadron. Often as not there are many trial sketches before the committee finally accepts a design and recommends it for the approval in turn of the Chief of Defence Staff and the Minister of National Defence.

Once the two hand-painted sealed patterns are signed by His Excellency the Governor General, the way is clear to let a contract for the casting of the badge in bronze, in both ship-size and boat-size. These, properly enamelled in colour according to the heraldic blazon or description, are displayed in a conspicuous place on the superstructure of HMC Ships and at the bows of the ship's boats.

It is of interest to note that a ship's official colours are derived from the ship's badge, one being the colour of the field or background, and the other being that of the principal device used in the badge.

The ship's motto, too, is subject to the approval of the Ships' Badges Committee. It is the responsibility of the commanding officer of a ship to submit the desired motto, and it is the committee's duty to see that the motto is appropriate and expressed accurately. In the Royal Canadian Navy, most ships' mottoes are in Latin, but some are in English and French. A few, like those of HMCS Iroquois and HMCS Micmac are in one of the Amerindian tongues. On board ships, the motto is displayed on the battle honour scroll or board; in naval air squadrons it is part of the squadron badge surround.

Originally, the motto was a short, sharp battle-cry employed in ancient times by a commander to rally his followers, particularly by night when banners and shields could not be recognized. Gradually, however, a motto has come to be an exhortation urging greater effort, as in the Restigouche's "Rester Droit" (Steer a Straight Course), or Gloucester's "Knowledge Through Discipline"; or it expresses an aspiring to high ideals, as in the Sussexvale's "Non Nobis Sed Omnibus" (Not for Ourselves Alone, But for All), or the Crescent, "In Virtue Cresco" (I Grow in Strength). Sometimes the ship's function suggests a motto like the Fundy's "We Sweep the Deep", or the ship's



name itself provides inspiration as in the Yukon's "Only the Fit Survive". Wit and humour have largely disappeared from mottoes but there was once a corvette (HMCS Edmundston) which rejoiced in the faintly Latin-sounding "Seekem, Sightem, Sockem, Sinkem".

Generations of seamen have taken great pride in the battle exploits of their own ships as well as earlier ships of the Fleet that have borne the same name. As a result the custom of displaying battle honours in some conspicuous place in the ship grew apace. It was only as late as 1954, however, that the Admiralty took control of this

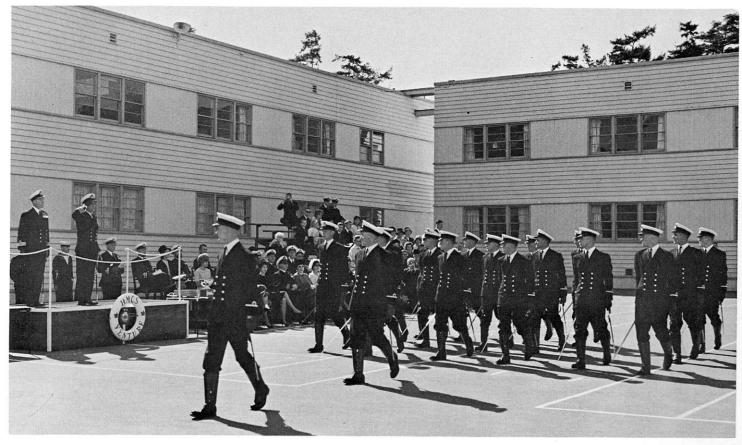
practice and, in order to prevent inaccuracy, set up rules for the award of battle honours. Like the rest of Her Majesty's Fleets of the Commonwealth, the Royal Canadian Navy, in consultation with the Admiralty, subscribes to a common system of battle honours.

Battle honours are awarded to the ship's name rather than to the hull itself, so that the honour lives on in future ships of the same name, long after the physical embodiment of the names lies several fathoms deep or has met its demise in the breaker's yard. This is why HMCS Bonaventure is proud to display eight such honours, including Barfleur 1692, and HMCS Carleton to honour Lake Champlain 1776. Similarly, several ships and establishments of the Royal Navy and Royal Australian Navy proudly wear honours won in battle by HM Canadian Ships.

Like many of the cherished traditions of the Royal Canadian Navy, shared battle honours is one more symbol of the ties that bind the nations of the Commonwealth as free and equal realms under one sovereign. These and the ancient devices of badge and motto express the sailor's pride in ship, pride in Service, pride in wearing the Queen's uniform and satisfaction in a task well done.—E.C.R., Naval Historian



HMCS Qu'Appelle steams through North Pacific mists on her way to sunny Hawaii. The ship in company is HMCS Fraser. (O-15930-3)



The first graduating class of Short Service Officer Plan surface cadets marches past on Graduation Day, Sept. 26, 1964. (E-78262)

NEW LIFE FOR VENTURE

THE INTRODUCTION of the cyclic system into the RCN has meant many changes and adjustments for most ships and establishments but probably for none more than for HMCS Venture.

Venture is the RCN West Coast training establishment for officer cadets, dealing, until this year, exclusively with short-service officers. The cyclic system, however, by reducing the number of ships available for ROTP cadet training from seven to three made it necessary to find an alternative means of training the first-year ROTP cadets.

That alternative is Venture.

At the same time that this decision was taken, a logical change in training responsibilities was made and the commanding officer of *Venture*, Cdr. W. H. I. Atkinson, became Commander, RCN Cadet Training, responsible for the ashore and afloat training of all first and second year ROTP cadets. Thus, there is, for the first time, a central authority responsible to the Flag Officer Pacific Coast for all naval training of officer cadets on the West Coast.

During the summer of 1965, Venture will be responsible for the training of

160 first-year and 140 second-year ROTP cadets, as well as 30 SSOP surface cadets. The second-year ROTP cadets arrive in two groups of 70, spend two weeks ashore, and then proceed to sea in ships of the Pacific Command for a five-week training cruise, followed by two weeks of pilotage training in local waters. However, with only three ships available for all training, the first-year cadets will not receive a cruise as they have in the past.

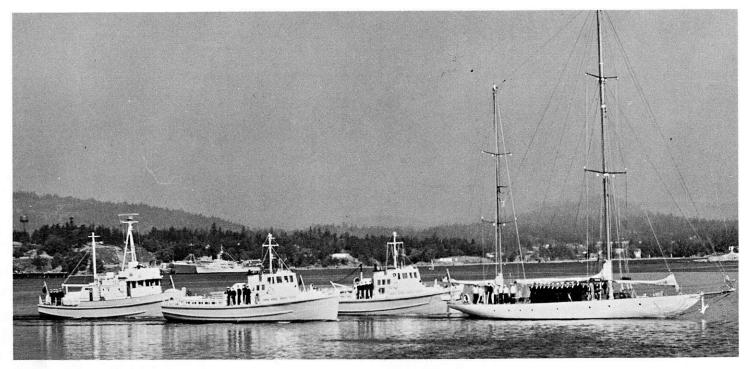
How does one train naval officer cadets without ships to put them in? Obviously, the answer to this question calls for the exercise of some ingenuity. Venture feels that it can be done, and

done successfully, at the cost of a great deal of careful planning.

Despite the obvious difficulties, a program has been worked out to provide the first-year cadets with a varied, interesting and educational summer. For example, short periods of classroom instruction will alternate with periods of pilotage training afloat and expedition training in wilderness areas of Vancouver Island.

The pilotage training, incorporating visits to such ports as Vancouver, Seattle, Campbell River, Powell River, Port Alberni, Comox, Gold River and other small ports, will be carried out in HMCS Oriole, the RCN's only commissioned yacht, and the other four vessels of the Auxiliary Training Squadron in two cruises of nine and 12 days duration respectively for each division of 20 cadets. These vessels will provide the cadets with ample opportunity to practise ship handling, communications, voice procedures and basic seamanship, as well as pilotage, in the vicinity of Vancouver Island.

In this way, the cadets will learn the nautical ways and, with only 10 of



Four vessels of the Auxiliary Training Squadron with Cadets embarked. (E-68390)

them aboard each converted YMT or YFP, will have an adequate time in "command". An additional advantage accruing from this type of training will be that the cadets will be introduced to the sea by personnel whose interest is completely directed to training.

The Short Service Officer Plan has been mentioned previously in this article, but it may be that since it is only its second year of operation, some readers are unfamiliar with it. Basically, the SSOP is the successor to the old *Venture* Plan, designed to produce short-service surface and aviation officers for the RCN. It is open to candidates between the ages of 17 and 24

years of age who are in possession of junior matriculation or equivalent.

Following a four-month naval indoctrination course at *Venture* from September to December, the surface cadets embark in ships of the Pacific Command for a three-month training cruise, while the aviation cadets proceed to RCAF Station Centralia to begin 42 weeks of flying training which concludes at RCAF Station, Portage La Prairie.

On completion of their training cruise, the surface cadets return to *Venture* for a further six months' professional training, equated as closely as possible to the ROTP pre-fleet courses in weapons, operations, tactical procedures, en-

gineering and power, and supply. Both groups graduate as acting sub-lieutenants, approximately 13 months from date of entry.

The Short Service Officer Plan and the cyclic system have, in fact, infused new life into and added considerably to the responsibilities of *Venture*, whose future was rather uncertain after the demise of the *Venture* Plan. This establisment now looks forward, confidently and enthusiastically to a new and busier phase in fulfilling the essential role for which it was founded—that of training the future officers of the RCN.



Officer cadets on expedition training on Vancouver Island. (E-77741)

BURSTING THE BUBBLE

By Lt. T. H. Copeland

in

The Navalaire

AST FALL, VS-880 had the opportunity to experiment with the feasibility of escape through the contoured side window of a CS-2F Tracker. The aircraft in question had flown its final trip before being towed away to CAIR and, since the co-pilot's bubble was due for replacement during this refit, permission was obtained to destroy it in order to test the practicability of exit via this route as an alternate means of escape.

Sub-Lt. J. E. McGee was selected for the job. Rigged in full flight gear, he seated himself in the cockpit to await the starting whistle. All available squadron aircrew were mustered to witness the demonstration so that they could gain first hand knowledge of the procedures and problems involved. Still photos and movie footage were taken for a permanent record.

On the "GO" signal, timing began and our "trapped" aviator unsheathed his trusty regulation survival knife to begin carving his way to freedom. Initially, he attempted circular and diagonal scribing, followed by healthy impacts from size 12 boots.

The bubble remained impassively intact.

Quickly realizing this course of action was fruitless, he then grasped his knife with both hands and pierced the plexiglass at regular intervals along the window perimeter with a series of short heavy punches. The blade was successfully forced through each time but the total effort was near-exhaustive. After the holing was completed, the footwork was again employed and this time a jagged opening was made. Egress through it presented little problem. Difficulty in firmly gripping the knife was experienced due to the small size of the handle. It had to be gingerly used in any case because of the absence of a slipguard. Total time involved: 90 seconds.

Well, what did we prove? We confirmed that this type of exit as an alternate to the overhead way is for the birds or, more appropriately, for the swordfish. Bubble construction is extremely solid, utilizing a ½2" (approx.) heavy plastic material sandwiched between two thick layers of perspex. Even when many large holes were made, the plastic liner still provided a remarkably high degree of integrity. Every precious



This may look ridiculous but actually it shows the conclusion of a useful experiment that proves there are better ways of leaving a Tracker aircraft than carving a hole in the perspex. The inverted flyer is Sub-Lt. J. E. McGee. (DNS-34259)

square inch of opening gained represented a frustrating, breath-consuming struggle. Underwater? Not a chance, unless major shattering took place upon ditching impact.

Conclusions:

- (a) Breaking through the side bubble of a ditched CS2F is totally impractical, since a semi-Herculean, time-consuming effort is required.
- (b) Shallow scoring will not allow the window to be kicked out. Systematic puncturing is required.
- (c) A stunned or injured person would be incapable of achieving breakout.
- (d) It is doubtful that the evolution could be accomplished, with the cockpit fully or partially submerged except with superhuman effort.

Recommendations:

- (1) In any inevitable ditching situation where time is available, deep and liberal scoring of both bubbles before touchdown will facilitate shattering on impact. The cockpit will be immediately inundated in any case.
- (2) If unable to exit through the overhead hatches, don't waste time in attempting to cut through the bubble. Attempt to swim aft to No. 3 and 4 hatches, or the main access door.
- (3) Religious observance of the regulations for both pilots' overhead hatches to be OPEN and LOCKED during all carrier takeoffs and landings.
- (4) Make the most of your bailout and ditching drills. Preplanning can make the difference between survival and being trapped.



Diving computers are cross-calibrated during simulated dives in the hyperbaric chamber at Toronto General Hospital. Surgeon Lt.-Cdr. D. J. Kidd jots down figures while CPO J. H. Wilson and Ldg. Sea. W. E. Nehring act as guinea pigs. Ldg. Sea. Nehring has contributed greatly to the developmental program and has made variants of the computer to his own design.

FOR SAFER DIVING

THE BENDS—the painful and sometimes fatal accumulation of nitrogen bubbles in the bloodstream—are suffered by deepsea divers who have returned to the surface too quickly after deep or long immersion. They are a well publicized effect of working literally under pressure.

However, space travel, high altitude flight, escape from a sunken submarine, work in compressed air and hyperbaric therapy (treatment in a decompression chamber) also involve changes in environmental pressure.

Now a device has been developed that will help divers and others working under conditions that involve drastic changes in air pressure to take precautions against untoward effects. It is a portable instrument known as the "pneumatic analogue decompression computer", and this is the story of its development.

The ability of man as pass from one environment to another of low pressure with impunity depends on understanding the problems of decompression. In particular, it is essential that the rate of ambient (surrounding) pressure reduction does not exceed, by some factor, the rate at which gases in solution in the body can be eliminated. The disregard for properly controlled decompression produces cavitation or bubble

formation within the body which results in some form of decompression sickness, ranging in severity from mild skin irritation to death.

In July 1962, Wing Cdr. R. F. A. Stubbs, RCAF, and Surgeon Lt.-Cdr. D. J. Kidd, RCN, at the Institute of Aviation Medicine in Toronto, turned to the decompression implications of new apparatus and techniques designed to extend the scope and safety of diving and submarine escape.

Decompression tables in current use throughout the world list decompression schedules over a specified range of depths and durations. These tables have been constructed from highly complex mathematical formulae based on the theoretical behaviour of inert gas exchange in the body. Because of the complicated interplay of factors "educated guessing" based on the tables is potentially dangerous and is not permitted. In practice, dives often do not correspond exactly with a decompression table dive—the rule then must be obeyed to err on the side of safety and follow an unnecessarily long decompression schedule.

It was logical to seek a device which would keep track of the actual diving experience, regardless of its extent or pattern, calculate the appropriate decompression continuously and present this information to the diver. In other words, what was required was a computer which would react to diving situations as the body does. Various versions of such a "blackbox" were made using pneumatic, hydraulic and electronic principles, but for simplicity and reliability, the pneumatic version has been most highly developed as a field instrument. Attempts to achieve a computer have been made elsewhere, one well known version being on the market, but this instrument is useful only under certain diving conditions.

It was found that the optimum decompression from any given dive followed a continuous ascent path of varying slopes (or rates of ascent), having in general a compound curve. This ascent path would be automatically generated if the diver controlled his depth to conform with the safe-ascent depth continuously supplied by the analogue computer, all relevant information being read from a single dial.

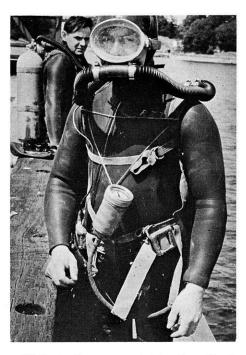
The first bench model of an analogue computer was constructed to operate on a speeded-up time scale and was used to verify previous calculations. In March 1963 the first prototype suitable for diving was produced by Patent Development & Prototypes under contract, and the first sea and chamber dives were carried out at the Royal Canadian Navy Diving Establishment (West Coast) in July of that year. To further verify laboratory work by actual experiments, using man as a guinea pig, the first computer was calibrated with a minimum margin of safety in order that the "threshold" of decompression sickness could be straddled, from time to time, to obtain better data than was hitherto available.

While it was quickly obvious that the computer could provide a diver with safe-ascent information, it did so with a significant saving in actual decompression time, since the continuous exponentially shaped ascent is more efficient. Its greatest feature, undoubtedly, is its "memory" permitting repetitive dives ad lib with the appropriate allowance for all previous dives built in.

In July 1964 the hyperbaric chamber at the Toronto General Hospital was made available to the Royal Canadian Navy Personnel Research Unit in exchange for medical support and trained assistance. The range of the different development versions of decompression computers was explored until, by March of this year, dives varying from 300



The co-inventors of the decompression computer are Wing Cdr. R. A. Stubbs and Surgeon Lt.-Cdr. D. J. Kidd, both of the Institute of Aviation Medicine, Toronto. The original "breadboard" model of the computer, assembled from parts of aircrew breathing equipment, is at the left. Surgeon Lt.-Cdr. Kidd is holding a prototype of an operational instrument.



PO R. J. Thompson and Ldg. Sea. W. E. Nehring in July 1963 dive the first prototype computer at the RCN's Clearance Diving Establishment at Colwood, near Esquimalt. The computer senses the inlet pressure of the breathing apparatus and indicates the time required for an ascent to the surface to avoid the bends.

feet for 20 minutes to 72 feet for over 12 hours, using 39 subjects, had been made. A total of 614 dives under carefully controlled circumstances had confirmed the earlier work beyond a doubt.

It was now possible to calibrate a computer with a greater safety margin while retaining its superiority over the decompression tables, in terms of time, flexibility and operational efficiency. At the time of writing, 433 dives with such a computer have been made with extremely satisfactory results, with an incidence of decompression sickness from all dives, single or multiple repetitive dives, of about 1.5 per cent.

The pneumatic analogue decompression computer is at present being manufactured by Messrs. Huntec Ltd., Toronto, under licence from Canadian Patents and Developments Ltd.

While the solution to decompression provided by the computer has been verified during air dives, the idea was conceived to exploit the more advanced diving apparatus using variable mixtures of oxygen and helium, a situation in which the tabular approach to decompression is least appropriate. There are good reasons to believe that it is here, in the control of very deep dives or repeated sorties from residence diving situations of the "Sea Lab" type, conducted off Bermuda, that computers will provide the greatest contribution.—D.J.K.



Wrens to Mark 25th Anniversary

While Canada is celebrating its centennial in 1967, ex-wrens will be observing their silver anniversary. Plans are already being developed for a wren reunion in Hamilton, Ont., on Aug. 25, 26 and 27, 1967.

Although the event is more than two years away, accommodation has already been booked at McMaster University. All correspondence concerning the event should be directed to the 1967 Wren Reunion, PO Box 392, Burlington, Ont.

Approximately 950 letters have already been mailed out to former wrens but more names are sought to extend the mailing list.

The Wren Association of Hamilton and district at its last general meeting elected an executive which will hold office until after the reunion. Its members are: Mrs. Wm. Marshal, president; Mrs. Joan Wiley, vice-president; Mrs.

Hard Collars On Way Out

Stiff-necked days are nearing an end in the Royal Canadian Navy. It became official in April that officers would no longer be required to wear shirts with starched detachable collars.

Storesmen report that new issue shirts with attached collars won't be available until a year from now. They still have old-style shirts and collars in stock for many sizes and those will be used up before the new ones are introduced.

However, civilian-bought shirts, with collars similar to regulation ones, may be worn. The ruling takes note of the neatness of the "fused" collars of present day men's shirts. Old-style collars and shirts will still be acceptable wear.

Storesmen are also preparing for the new tri-service raincoat, scheduled for issue sometime in 1966. It will be similar in material and style to the present Navy burberry.

Thomas Baxter, recording secretary; Miss Marge Warren, corresponding secretary; Mrs. W. B. Barlow, treasurer; Miss A. Finn and Mrs. D. Clewley, social committee; Mrs. W. Dunlop and Mrs. Joyce Southcott, sick and welfare committee; Miss Reta Michin, publicity.

Museum to Display RCN Mementoes

A special exhibition showing the development of the Royal Canadian Navy from its beginnings in 1910 to its numerical peak in manpower and ships in 1945 will open in mid-August at the Marine Museum of Upper Canada, Stanley Barracks, Toronto, and continue for six weeks or more.

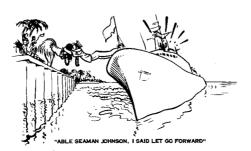
Stanley Barracks adjoins the Canadian National Exhibition grounds in Toronto, making it convenient for fairgoers to see the exhibit.

The curator of the museum, Al Howard, has asked for the assistance of former naval personnel in assembling the exhibit. Models of ships, photographs, posters and other nautical mementoes are desired. Any items loaned to the museum for the exhibition will be returned promptly when it is over.

RCNA Sports Day In September

A Royal Canadian Naval Association sports day has been announced for Sept. 18 in Brantford, Ont., with 15 trophies plus four other major awards at stake.

The events will include darts, snooker, bowling, cribbage, shuffleboard,



golf and, if artificial ice is available, curling.

All trophies will be awarded on the day of the tournament except for the Cock-o'-the-Walk, which will be presented at the RCNA annual meeting in October.

Veterans Have Part in Ceremony

Naval veterans from across Canada were officially represented for the first time at the National War Memorial in Ottawa on the occasion of Battle of the Atlantic Sunday on May 2 when H. A. Maynard, of Oshawa, laid a wreath on behalf of the Royal Canadian Naval Association

Mr. Maynard, who is national president of the RCNA, and Mrs. Maynard were guests at the home of Arthur Gowling, a member of the executive of the Ottawa-Hull NVA.

In 1957, the CNA, as it was then known, concurred with the decision to designate the first Sunday in May of each year as Battle of the Atlantic Sunday in naval general orders. Previously the observance had been proclaimed annually and on occasion had been held in conjunction with Trafalgar Day, Oct. 21, a time of year not always suitable for a memorial parade.

Argus Salutes Paid-Off Frigate

As the ocean escort HMCS Cap de la Madeleine was entering the approaches of Halifax harbour on April 8 for the last time as a commissioned warship in the Royal Canadian Navy, she was saluted by a flypast from an Argus anti-submarine aircraft.

The Argus passed a message to the Cap de la Madeleine from Air Commodore F. S. Carpenter, Air Officer Commanding, Maritime Air Command, congratulating the former Second World War frigate on her many years of service to Canada and the cause of freedom.

HERE AND THERE IN THE RCN



With Halifax Red Cross nurse J. McClare is Ord. Sea. Bruce Ackland, the 28,000th donor to give blood at HMCS Cornwallis where 44 blood drives have been held since 1949. At the most recent clinic, held this spring, 640 persons turned out to swell the training establishment's blood bank credit. (DB-19800)



On a visit to 1 Canadian Air Division in Europe, Rear-Admiral R. P. Welland, Vice-Chief of Operational Readiness, flew at Mach 2 or twice the speed of sound. Here he is wished good luck by Group Captain D. C. Laubman, commanding officer of 3 Wing. (PL-152963)



At a recent ceremony in HMC Dockyard, Esquimalt, Commodore Harold V. W. Groos was presented with a retirement certificate by Rear-Admiral M. G. Stirling, Flag Officer Pacific Coast. Commodore Groos was Director General Officer Cadets at Canadian Forces Headquarters, Ottawa. He has taken up residence in Victoria. (E-80428)



Cadets of the sailing club at Royal Roads took advantage of fine spring weather in March to sail the training ship HMCS Oriole to Vancouver and Nanaimo. They are shown with Lt.-Cdr. W. D. Walker, the Oriole's captain. (RR-3894)



Two crew members who had served the longest of any on board the destroyer escort Terra Nova left the ship on May 3 for the last time. Cdr. C. E. Leighton, commanding officer, bids farewell to PO J. C. Stewart (left)-and Ldg. Sea. O. J. C. Helmkay. PO Stewart and Ldg. Sea. Helmkay served on board a total of 140 months under three commanding officers during which 22 foreign and Canadian ports were visited. During this time 506 days were spent at sea and more than 102,000 miles were steamed. (HS-78006)

STORMY WEATHER AT NRC

I T WAS A STORM with all the trimmings for Ord. Sea. Claude Boulegon, RCN. Snug in his bunk he read and even slept while the "ship" dipped, rolled, pitched and tossed. Then he got down, climbed in his car and went home for supper*. The "ship" is at NRC's Division of Mechanical Engineering in Ottawa.

It consists of a box to simulate a bunk, fitted to an exotic mechanism causing it to soar up and down while rolling, pitching and tossing.

What effect does the motion of a hydrofoil have on the crew? Can they eat, sleep, with enough comfort to avoid a decrease in efficiency? Can they read dials and operate levers in a fast moving craft in bad weather? These human problems are being studied in conjunction with the Institute of Aviation Medicine and the Navy.

The problem is to find out how human beings will manage in heavy weather in the Navy's latest ship now under construction—the hydrofoil. The hydrofoil travels at high speeds, lifting its hull completely out of the water and travelling on underwater wings. In bad weather it is inclined to bounce.

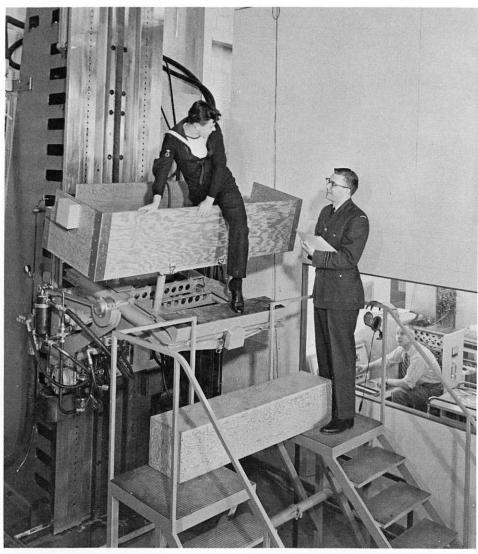
It is one of the many machines which tax the physical and mental powers of the humans who must operate them. There are lots of others—aircraft, industrial machinery, even motor cars.

The human as a controller of machines is studied at NRC by the control systems laboratory, headed by Dr. J. Alan Tanner, formerly of the National Physical Laboratory in England.

Just how big a problem man can be in his handling of machines is being clearly realized. According to the Department of Transport, of 281 air accidents in Canada in 1962, 193 were traced to human error. Of industrial accidents, H. W. Heinrich, the noted U.S. safety authority, says that between 80 per cent and 85 per cent are due to failures of humans, not machines. And on the highways, the Canadian Highway Safety Council says that 91 per cent of accidents are due to human failure.

"Our objective," says Dr. Tanner, 'is to study ways for man to give his best

* Two other sailors, Able Seamen Ronald Hubbard and Lorne Leroux, have shared in the experiment, Hubbard saying that he has had a rougher time of it in destroyers and frigates. The three men agree that it is impossible to get eight solid hours of sleep in the apparatus.



Ord. Sea. Claude Boulegon clambers from the National Research Council's hydrofoil bunk simulator and assures investigators that the aircraft carrier Bonaventure offers a better ride, but that he still wouldn't mind serving in hydrofoils like the ocean-going craft being built for the RCN. (NRC Photo)

possible performance in the control of the machine he operates . . . but we have much to learn about man's physical make-up before this potential can be realized."

Man, a complicated creature capable of handling many inputs and outputs, also has the ability to make decisions, and this ability could be impaired by unusual circumstances.

"Research into this decision-making ability, especially in new or unusual situations, represents a truly new aspect of control systems work," says Dr. Tanner.

It may be that in some circumstances human operators have too many tasks to perform in operating a machine to give their best to the control function. The huge number of dials to watch in the coontrol of aircraft heavily load the visual capacity of the human controller.

Man cannot become, on the other hand, a mere "push button controller" because of his helplessness in the event of a mechanical failure.

Nor can man, the controller, perform everything manually in a complex machine. If he tries to do so, he is in danger of overloading his capacities.

Somewhere between these extremities in the man-machine relationship, lies the best use of the human operator, ensuring the ideal "team" of man and machine and efficiency of performance.

—NRC Research News

AFLOAT AND ASHORE

PACIFIC COMMAND

HMCS Grilse

Early this year the Grilse held a dependent's day cruise for the wives and older children of the West Coast submariners. Since 80 extra people were involved, two separate trips were necessary in order that movement would still be possible in the boat.

The day started with a dive to periscope depth, with each wife closed up with her husband at the position he would normally man during this evolution. After the visitors had had the opportunity to tour the boat, a dummy torpedo firing and snorkel runs were conducted. During these periods, all had the chance to look through the periscope and also experience the novel effect of snorkeling on the sinuses.

The reactions of the wives and children were surprisingly consistent. Most of "the girls" are now completely con-



vinced that their husbands are a bit unbalanced, wanting to spend their working lives in a cramped, smelly tube. One of the "better halves" scoffed at the idea that submarine bunks are difficult to get in and out of because of the small clearance. Bravely, she proceeded to demonstrate her agility, easily wiggling into a lower bunk. Her poise vanished rather abruptly, however, when she found she couldn't get out! It was only with assistance from her husband that she could get extricated, red-faced and shaken.

A look through the periscope proved the most popular event of the day, although one young son, when asked what he liked best about the cruise, was surprisingly honest. His answer: "Missing school".

During the week of March 15-19, a last-minute cancellation of an operational programme permitted the *Grilse* to repay the excellent work of HMC Dockyard personnel with a trip to sea in a submarine. Naval personnel were invited as well for familiarization in submarines. Six separate half-day trips were made, allowing a total of 181 people, who normally would not get the



This bevy of bearded beauties headlined the presentation of "Pacific Capers", the ship's concert held in HMCS Saskatchewan during the spring training cruise to the Far East. (CCC2-1755)

opportunity, to experience cruising below the ocean's surface.

On Friday, March 19, the "Canadian Submarine Force Pacific" was host to representatives of the press, radio and television. This was the first time that the *Grilse* had been host to such a large group of newsmen, and consequently subjected to the questions of professional inquisitors. A program similar to that of preceding cruises was carried out with a YFP standing by so that photographs could be taken of the Grilse diving and surfacing.

Miss Pat Dufour of the Victoria Daily Times wrote the following womanly observations after her first dive in a submarine:

"From then on, the three-hour cruise became a voyage of exploration, so much so that someone had to remind me to hold on to my cup of coffee as I sat in the cafeteria for the second dive. Not that the angle of elevation seemed acute—it was actually quite slight—but submariners have a fetish about tidiness and I'd hate to be the first to mess up the immaculate dining tables!"

HMCS Jonquiere

The ocean escort Jonquiere and the submarine Grilse represented the Pacific Command in the Navy League Week program at Nanaimo B.C., both vessels visiting the Vancouver Island city from May 7-9.

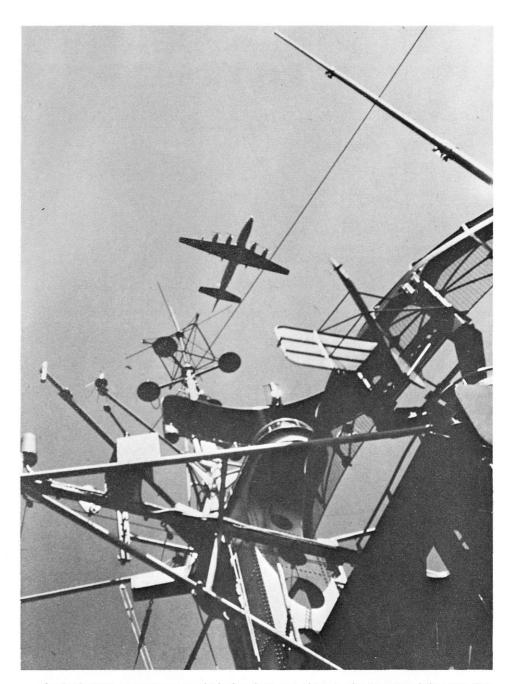
In addition to holding open house, the *Jonquiere* and *Grilse* landed 72 men to take part in the Navy League Week parade through downtown Nanaimo on May 8. The salute was taken by Mayor Peter Maffeo.

ATLANTIC COMMAND

HMCS Cornwallis

A cheque for \$1,000 was presented recently to F. C. Purdy, chairman of the board of directors of the new Digby General Hospital, by Ord. Sea. John R. Bottomley on behalf of Captain J. M. Paul, commanding officer, and the ship's company and civilian staff of Cornwallis.





The St. Laurent conversions may think they have something in the Sea King helicopters they carry, but the Algonquin boasts that she is one or more up on them, having her own personal Argus ASW aircraft, which she guides by string. Whether or not this is strictly factual, the picture does play up the fact that the RCN and RCAF have been co-operating these many years in the anti-submarine field.

The money was collected in a drive by the *Cornwallis* Central Charities Fund and will be used to furnish a solarium and waiting room for the maternity wing of the new Digby Hospital. This will be known as the "*Cornwallis* Room".

Ord. Sea. Bottomley, son of CPO and Mrs. Bruce Bottomley, represented not only the ship's company and staff of Cornwallis but also the combined new entry training divisions, who made one of the largest donations in the campaign.

The cornerstone for the new \$1,-

600,000 hospital was laid in the fall of 1963. The hospital boasts of modern equipment in all areas. There are beds for 90 adult patients and basinettes for 19 nursery patients.

More than 250 cadets of the University Naval Training Division from 15 universities across Canada arrived in HMCS Cornwallis in mid-May for summer training as prospective officers in the Royal Canadian Navy Reserve.

The cadet training program this year has undergone many changes from previous summers. All courses are being

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conducted simultaneously as is done in universities. Examinations in all courses will be held at the end of the summer,

Junior cadets to a total of 147 will remain in *Cornwallis* for the whole summer undergoing training in navigation, communications, seamanship and naval knowledge. One hundred and nine senior cadets will take advanced courses in navigation and communications and also study supply and leadership. They practise in seamanship during two fiveweek European training cruises.

Forty-five of the senior cadts will receive their commissions in the fall and remain on the active reserve list to undergo more intensive training the following summer in either navigation, communications or supply.

HMCS Granby

Don Messer's Jubilee, popular CBC-TV show, went "underwater" on May 24, with a visit to the Royal Canadian Navy's diving training unit, HMCS *Granby*, in Dartmouth, N.S.

The half-hour video-taped program showed how divers are trained and the type of equipment used. The show's M.C., Don Tremaine, and the *Granby's* training officer, Lt. Norman Prouse, demonstrated the re-compression chamber, a tank which simulates underwater pressures.

NAVAL DIVISIONS

HMCS Carleton

Ottawa's naval division, Carleton, has come up with something new—sea training for RCNR wrens.

For the first time in the history of the naval division, young women of



The unfamiliar seascape (actually Lake Ontario) is scanned by Carleton Wren Willa Jean Bellman during a week-end training cruise arranged by the Ottawa naval division.

Carleton's wren division took part in a week-end training cruise on Lake Ontario.

Seven Ottawa wrens, under Lt. Margaret Spratt, embarked on May 22 in HMCS Porte St. Louis at Hamilton. Along with 41 officers and seamen from Carleton, they sailed to Oshawa, then to Port Credit on Sunday, sailing back to Hamilton on Monday.

The wrens received practical training in seamanship in addition to their regular duties in communications and in the galley. The only special treatment they received is that they were billeted in comparative comfort ashore on Saturday and Sunday nights, whereas the men remained on board.

The training cruise was carried out by *Carleton's* training officer, Lt.-Cdr. E. J. Cooper.

HMCS Tecumseh

The time of the year for inspections in the naval divisions has come and gone, and at *Tecumseh*, the Calgary division, there were two held on the same day.

Lt.-Cdr. S. F. Mitchell, Staff Officer Fiscal and Supply to the Commanding Officer Naval Divisions, carried out his annual inspection of supply facilities on the same day that Cd. Off. T. W. Milne, Staff Officer Bands to COND, did his inspection and trade tests of the *Tecumseh* band.

Ten naval reserve bands competed for the Band Efficiency trophy. The Tecumseh band placed second in this competition in 1963 and 1964. This year's winner was Discovery, Vancou-

SEA CADETS

NLCC Admiral Bidwell

On March 6 some 60 members of the Admiral R. E. S. Bidwell Navy League Cadets, Dartmouth, N.S., were entertained by personnel of the Shearwater Naval Fire Service.

During their visit the cadets were given lectures and shown how a fire department is organized and functions. After demonstrations of major equipment and first-aid fire appliances, some of the boys were afforded the opportunity to use an extinguisher and extinguish a small fire.

Instructions were given on fire prevention, proper method in transmitting on alarm and what to look for when entering public buildings. At this point the lads appeared quite hungry so out came some roasted hot dogs and chilled pop, served by fire department personnel.





Wren Wanda Costin, of HMCS Carleton, Ottawa naval division, cheerfully peels potatoes on board the reserve training vessel Porte St. Louis and —ouch!—nicks her finger. Nearly 50 reservists, including seven wrens, took part in the May long week-end cruise.

GO SOUTH

ANADA'S MOTTO, translated from the Latin, is "From sea to sea". The motto of the new Canadian flag appears to be "From pole to pole".

Shortly before Canada's new national ensign, displaying the red maple leaf, was proclaimed, an RCAF Argus aircraft dropped a new flag, encased in a canister, at the North Pole during a navigation flight.

The new flag also was hoisted and flown at the geographic South Pole, again in advance of the day of proclamation.

Captain V. W. Howland, Naval Member, Canadian Joint Staff, Washington, in January visited Antarctica as the guest of Rear-Admiral J. R. Reedy, USN, Commander, U.S. Naval Support Force, Antarctica, and Commander, Task Force 43.

It is possible that other RCN officers and men have visited the frozen continent at the bottom of the world, but it is thought that Captain Howland, unless someone steps forward with a prior claim, is the first member of the Royal Canadian Navy actually to have stood at the geographical South Pole. This happened on Jan. 31, 1965, at the height of the Antarctic summer, and Captain Howland anticipated historical events a bit by flying the new Canadian flag for the first time at the South Pole.

He travelled to Antarctica in a U.S. Navy Operation "Deep-freeze" aircraft of VX-6, with stops at Alameda, Calif., Hickham Air Force Base, Hawaii, and Christchurch, New Zealand. The return journey from Christchurch was by USAF MATS aircraft. Two days were provided at Christchurch on the way south for "kitting-up" with Antarctic clothing, and two days on the return journey for "unkitting" and re-orientation to normal non-Antarctic life.

During his eight days in Antarctica ("down on the ice" is the proper expression), he lived in a very slightly improved Quonset hut labelled "Ross Hilton Hotel", it being on the shores of the Ross Sea. The standard of living was wholesome, healthy and adequate, in the same sense as a Canadian logging camp. But it fell far short of the comforts normally expected on the messdecks of one of HMC ships in the 1960s, Captain Howland says.

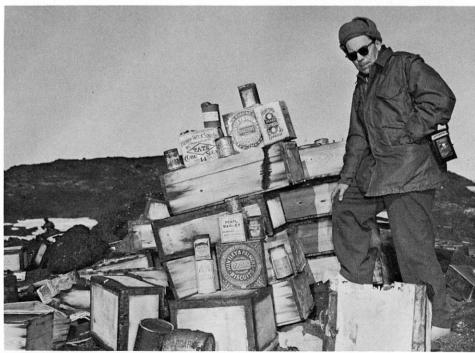
Local trips by ski-equipped C13OE Hercules were made to the Pole and to Byrd Station, both about 800 miles from McMurdo. Both of these scientific stations are built under the ice, the prefab buildings being located in huge ice caverns. It was a very mild summer day at the pole, being only 37° below zero. Byrd Station was positively hot with a temperature of 3° above zero. The temperature at sea level (McMurdo) was between 20° and 30° and there were 24 hours of sunshine at this time of years.

Captain Howland visited Scott Base, the New Zealand station on the Ross Sea Ice Shelf, where the Weddell Sea breaks through faults in the ice and lie about sunning themselves. At Cape Royds, he walked among the thousands of Adele penguins, and was attacked by the fierce skuas. Here also is Shackleton's hut.

At Cape Evans, he visited Scott's hut, from which the explorer set out on his last fatal journey to the Pole. The visits to Cape Evans and Cape Royds were made in the USS Staten Island.

Rear-Admiral James R. Reedy, USN, (left) and Captain Vernon M. Howland, Naval Member, Canadian Joint Staff, Washington, stand in front of the new Canadian flag, flying proudly at the geographical South Pole. (Official USN Photo)





Canadian naval officer Captain Vernon Howland stands by a heap of supplies left more than half a century ago by Scott's South Pole expedition at Cape Evans, Antarctica. (Official USN Photo)

SCIENCE AND THE NAVY

Unit to Speed ASW Development

Narrowing the time gap between the idea and application in the field of antisubmarine warfare is the aim of the new Anti-Submarine Warfare Service Projects Unit, in the Defence Research Board's Naval Research Establishment in Dartmouth, N.S.

K. N. Barnard, previously superintendent of the Chemistry and Engineering Wing at NRE, has been appointed superintendent of the new unit.

The unit will give scientific support to the Canadian Forces in ASW, dealing directly with the RCN and RCAF in the Maritime Command Atlantic concerning their ASW problems, complementing the longer-term research projects underway at NRE.

Requests and suggestions originating from all ranks within the services will be examined for their scientific utility, and research will be initiated into those that indicate the possibility of worthwhile ASW applications, in accordance with priorities ascribed by the services. An important objective of the unit is the reduction of the time lag between scientific discovery and service operational use of equipment developed from DRB research.

The superintendent, Mr. Barnard, was born in England and came to Canada in 1927. He obtained his BSc and MSc, with honours in physics, at the University of Saskatchewan, following which he was employed in geophysical exploration.

In 1941 he joined the Halifax section of the National Rsearch Council, working on degaussing, harbour defence and other war research problems, and continued on with the RCNVR special branch in 1943, when the section went into uniform, to be known as HMC Naval Research Establishment. In 1947 the newly formed Defence Research Board of Canada assumed control of the establishment and Lt.-Cdr. Barnard retired from the RCN to continue with DRB as a research scientist, thus becoming a charter member of DRB's Naval Research Establishment, located in HMCS Stadacona until the new laboratory was opened in Dartmouth in 1952.

Mr. Barnard has conducted research in marine corrosion, anti-corrosion and



K. N. BARNARD

anti-fouling paints, and associated metallurgical and chemical fields.

A team of three NRE scientists, Dr. G. L. Christie and Dr. J. H. Greenblatt, with Mr. Barnard as leader, pursued an idea that has brought international recognition to NRE for its work in the development of a cathodic protection system to prevent the costly corrosion of steel ship underwater hulls. The system is now standard equipment in RCN ships, and has been adopted by other navies and commercial shipping interests.

Corrosion Measure Not Always Safe

The RCN was a pioneer in the anodic protection of ships—the fitting of magnesium anodes to a ship's hull near the bronze propellers so that the anode wastes away instead of the steel of the hull—but under certain circumstances, according to a report from Britain, the system can be a menace.

Because the use of magnesium anodes results in the generation of hydrogen gas, Lloyds Register of Shipping has inserted a clause in its rules making the fitting of such anodes in oil fuel tanks unacceptable.

Mr. Barnard, accompanied by his wife, recently completed a three-month round-the-world trip, visiting research establishments in England, France and Italy. He presented a technical paper at the symposium on marine paints in Bombay, India, then returned via Tokyo to the United States, visiting several research centres, en route to Dartmouth.

Royal Navy Studies Anti-Shark Methods

The Royal Navy is evaluating new methods of frightening sharks as part of the protective measures afforded to divers or castaways. Work is being handled through the Naval Life Saving Committee, whose headquarters are at Bath, England.

A repellent being tested takes the form of a powder that irritates the mucous membranes of the shark's gills. According to the species, there are five, six, or seven gill openings.

Experiments in which the Royal Navy are interested concern the form in which the irritant can be carried. One is a dispersable block for use by survivors; another is a spray in an aerosol container. In the latter case divers would squirt small quantities toward an inquisitive shark.

The present method of discouraging sharks was referred to by the Minister of Defence for the Navy in the debate on the navy estimates. The repellent supplied for use in shark-infested waters consists of a mixture of black dye and chemical irritant with the addition of another material to ensure a slow rate of dissolution in water. It is packed in a fabric bag which has a plastic cover and a rip patch. A short cord is attached to the plastic cover for tying to a life jacket or survivor's clothing.

The repellent forms a cloud around the survivor, hiding his head, legs, and arms from the shark. The irritant according to an expert, affects chiefly the shark's eyes. It is supposed to be effective for about an hour. Sharks have poor eyesight in any event.

The Naval Life Saving Committee keeps in close touch with other workers in this field. All information goes to the Shark Research Panel of the United States, with whom good relations are maintained. Repellents are tested under field conditions and by staff at marine laboratories in the West Indies and Honolulu.

Sharks are found infrequently round the coasts of Britain compared with those of Australia, the West Indies, and South Africa, but a 435-pound specimen was caught off Cornwall last summer.—
Naval News Summary

Floating Lab Studies Atlantic

Oceanographers from the Bedford Institute of Oceanography at Dartmouth, N.S., have spent six weeks this spring on board one of Canada's floating laboratories, the Canadian Scientific Ship *Hudson*, studying the characteristics of the floor and waters of the North Atlantic. The Institute is operated by the Marine Sciences Branch of the federal Department of Mines and Technical Surveys.

The objective of the cruise, under the direction of Dr. Bosko Loncarevic, head of the institute's geophysics group, was obtain information to assist Canada in the study of its coastal waters and, at the same time, to fulfil Canada's obligations in the Upper Mantle Project, an international study of the earth's crust.

On the cruise, the oceanographers were accompanied by a scientist from Dalhousie University, studying plankton to learn more about the distribution and production of fish.

The Hudson undertook two parallel crossings 60 miles (one degree of latitude) apart, between Dartmouth and Brussels, taking geophysical measurements of the sea floor to ascertain its structure and formation. In mid-ocean, the oceanographers are making a detailed study of an area of the Mid-Atlantic ridge (the longest mountain range in the world) where in 1960 scientists aboard a British research vessel, Discovery II, investigated a median valley containing two volcanoes. Dr. Loncarevic was a member of that team.

On the other side of the Atlantic, the *Hudson's* program included a reconnaissance survey of the western approaches to the English Channel between Land's End, England and Cape Clear, Eire. They are comparing their findings with the results of their investigation of the Nova Scotia continental shelf to ascertain whether there is any similarity between the east and west boundaries of the Atlantic Ocean.

A highlight of the cruise was the use of an ultra-modern system of automatic measurement and recording of scientific information to eliminate the heretofore inevitable delay of many months of data compilation to obtain results. The system was developed by Dr. C. S. Mason in the electronic design laboratory of the Bedford Institute. It records on computer paper tape, once every minute, readings from the shipborne gravimeter, the magetometer and the

Decca navigator. These tapes are then fed into a small computer (the first time a computer has been carried about a Canadian ship) and preliminary results can be calculated immediately.

On the cruise, the oceanographers took large-volume samples of sea water from various depths for radiochemistry studies to determine the amount of radio-activity in the water. They analyzed the water on board ship in an especially equipped laboratory.

Scientist Lost In Downed Argus

Dr. Carmen L. Piggott, 37, who had been a defence scientific service officer at the Defence Research Board's Naval Research Establishment in Dartmouth, N.S., died in the crash of the Argus aircraft lost off Puerto Rico on March 23.

For 10 years, he had been engaged in anti-submarine warfare research. In December 1964 he was appointed scientific consultant to the Maritime Command Atlantic, serving on the staff of the Air Officer Commanding, Maritime Air Command.

Dr. Piggott was born in Bridgetown, Nova Scotia, and received his BSc and MSc in physics at Dalhousie University, and PhD at McGill University.

Dr. Piggott resided in Dartmouth with his wife, Dorothy, and their two children.

MODERN CRUSOE RESCUED BY RN

A ROYAL NAVY frigate has rescued a modern Robinson Crusoe, an American yachtsman shipwrecked on a remote uninhabited island in the Bahamas. The anti-submarine frigate Rothesay (Cdr. R. S. Agar, RN) was alerted after a United States Navy patrol aircraft had sighted the castaway.

The American, William Haas Jr., of Philadelphia, was spotted on the lonely island of South Cay, off Ackland Island. He had been alone there since a night in early December when his 22-foot boat *Mel-o-Dee*, which he had been sailing single-handed from New Jersey to St. Thomas in the Virgin Islands, ran ashore and was wrecked.

He managed to salvage some food and equipment from the boat, made a shelter, and burnt wooden wreckage in an effort to attract the attention of passing ships. More than 40 ships passed, but his signals were not seen. When his food ran out he was reduced to eating shellfish and drinking rain water.

HMS Rothesay was 500 miles away when it was reported that the castaway

had been sighted. The frigate sailed immediately and rescued him on Jan. 2 after food and water had been dropped to him by a United States Coastguard aircraft.

The ship reported that Haas was fit and well after his 30-day ordeal, but that he had survived only by reason of his skill and common sense. He rationed himself to half a cup of water twice a day. He then made a distilling unit from a petrol can and a salvaged hose length which, with three hours boiling, and coiling the pipe through a pool, produced two quarts of water. He also made a rain trap from driftwood and he fed mainly on whelks, of which there was an ample supply, cutting out the flesh and boiling it. He weighed 175 pounds at the start and 130 pounds when rescued 30 days later.

Haas salvaged an axe from the wreckand chopped up driftwood and wreckage to make fires for cooking and to try and attract the attention of passing ships. But 47 ships passed without seeing his fires. On the 28th day he made a flagpole, which was sighted by a U.S. Navy patrol aircraft.

The Rothesay sent ashore a Gemini dinghy, the only type of craft usable due to the surf, with Lt. Michael Clayton, RM, Surg Lt. David Wright, Colour Sgt. Alan Colley and Marines Albert Moye and Robert Kelley.

Hass was hale and hearty, thin, and happy to be rescued. His first words were: "Boy, oh boy, am I glad to see you fellows."

"He had a grey beard and an appearance like Crusoe himself," reported Cdr. Agar.

The island is completely barren and deserted, about a mile long, a quarter of a mile wide and with little vegetation except cactus. The only animal life consisted of rats and two nesting eagles which became quite friendly. Haas found fishing impossible because of coral surrounding the island.

Haas was transferred from HMS Rothesay to the United States Coast-guard Cutter Ariadne and later landed at Key West, Florida.—Naval News Summary.

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THE NAVY PLAYS

"Des" Desrosiers Wins 156-Pound Title

Ldg. Sea. Fred (Des) Desrosiers, slugger from *Naden* who was one of the boxers on Canada's Olympic team at Tokyo last year, on May 16 won the 156-pound title in the Canadian amateur boxing championships at Calgary.

Desrosiers, last year's Canadian amateur welterweight champion, showed his superior experience in taking a split decision over Gordon Sinclair, of Slave Lake, Alta.

Volleyball Title For Gloucester

HMCS Gloucester captured the Ottawa senior men's volleyball championship on April 6 after seven months of intensive training, travel and league play.

The team was built around a nucleus of four players who had been on championship teams in *Churchill* and *Coverdale* in recent years.

Gloucester entered the Ottawa City League for the first time this year. After a long season of practice drills concentrating on such fundamentals or ball handling, serving, spiking and blocking, the team just managed to finish in the last playoff position.

The team began to show signs of maturing in mid-March when the results of long hours of arduous practising finally became evident. On April 6 the team's latent potential suddenly emerged and it swept aside the YMCA 2-1 in the semi-final and then crushed Ottawa "U" 2-0 in the finals.

The city trophy has been up for competition for 16 years and is recognized as the top volleyball prize in Eastern Ontario.

Wren's Top Score 57 in One Game

Wren Johanna Pedersen of PO Jonny Pike's *Stadacona* wrens' basketball team has won this year's scoring title in the Halifax and District Women's Basketball League.

She led the league in scoring, with a total of 176 points for an average of



The opposition was tough but long hours of practice paid off and HMCS Gloucester took the Ottawa senior men's volleyball championship. Members of the winning team were (back row) Ldg. Sea. G. M. Anstey, PO R. E. Beal, Lt. R. C. Eastman (coach), PO N. J. Anctil and Cd. Off. W. G. Hillaby, and (front row) AB B. W. Lamarre, PO E. D. McLeod, Ord. Sea. J. E. Boyde and Ord. Sea. B. A. Morrison. Ldg. Sea. J. J. Whittingham was absent when the picture was taken. (O-16031)



WREN JOHANNA PEDERSEN

25.5 in seven games, and hooped another 121 points in four playoff games, good for 32.2.

Her highest score for one game was 57 points.

In 1964 she was voted the outstanding player in the Nova Scotia provincial basketball tournament.

Originally from North Surrey, B.C., she played for Queen Elizabeth High School for four years. This is her second year with the *Stadacona* team and second year in Senior "A" women's basketball.

The wrens had a fine season in '65, finishing second in the league with a 5 and 2 record, losing out to Dartmouth in the final playoff game and to Antigonish Scots in this year's semi-final of the Nova Scotia provincial tournament.

Chippawa Takes Labatt Trophy

HMCS Chippawa's indoor .22 rifle team won the Labatt trophy during the 1964 training season for the third time. The previous wins were in 1956 and 1963.

The Winnipeg naval division has a fairly extensive indoor rifle training program, with training, practise, competition and range rules and regulations being carried out three evenings per week. Keen interest is shown by all sections of the division, as well as by members of the two sea cadet corps.

Hochelaga Wins At Deck Hockey

In the first year of competition, the deck hockey team from HMCS Hochelaga won the 1964-65 Montreal tri-service deck hockey league championship with a record of 15 wins and no losses.

The team was managed by Lt. M. P. Robida and coached by PO E. J. Robert.

Capacity Crowds For Ice Carnival

More than 130 young skaters from the Cornwallis area took part in a dazzling display of skill and showmanship on the ice in early April when the Cornwallis Skating Club presented its season finale, "The Cornwallis Ice Review."

The skating rink of HMCS Cornwallis was packed both evenings as the young performers, ranging from twoyear-old to teenagers, performed in 26 delightfully varied routines. Music was by the Cornwallis band.

The highlight of the show, and certainly the finest figure skating seen in the area, was the performance by the brother and sister team of Dick Salter and June Rheubottom. Dick Salter, a long-time professional skater and gold medal winner, was brought to Cornwallis by his sister, Mrs. Rheubottom, director of the show. He is a teacher of figure skating in Sun Valley, Idaho. Both brother and sister have travelled with international ice revues.

As usual in a presentation of this kind it was the junior cast that stole the show, from the tiniest cowboy in the "Cowboys and Indians" number to the most winsome young miss in the "Hawaiian" number.

West Point Wins Hockey Tourney

The Royal Military College hockey team suffered its first shutout in 34 years in its annual tournament with the cadet team of the United States Military Academy by a score of 6-0 at West Point, N.Y., on March 6.

The West Pointers made two goals in the first period and four in the second.

The scene of the hockey encounters has alternated between the two institutions since the first game was played at West Point in 1923. With the exception of 1942, the matches were not played during the Second World War.



One of the highlight's of last spring's Cornwallis Ice Revue was the appearance of this brother and sister duet featuring Dick Salter, a long-time professional ice skater and now teacher of figure skating in Sun Valley, Idaho, and his talented sister, Mrs. June Rheubottom, wife of CPO W. A. Rheubottom, of Cornwallis. Both brother and sister have skated with international revues. (DB-19710)

Of 34 games played so far, Royal Military College has won 19, West Point 14, and one game was tied. The Pointers won their first game in 1939 and have now won 12 of the 17 games played since the first post-war match in 1949.

When the first hockey game between the two military institutions was played in 1923, Royal Military College presented a cup to the U.S. Military Academy to commemorate the occasion. The fact that West Point did not win a game during the first 16 years of competition gave birth to the legend that the cup is always presented to the losing team.

Presentation of a duplicate cup to RMC by USMA at Kingston in 1939—the year of West Point's first victory—strengthened the misconception. Actually, there are two cups, identical except for the inscriptions, one held by each institution. This year the original cup was presented jointly to both team captains after the game and remains at West Point.

"B" Hockey Title To Cornwallis

Cornwallis Cougars won the Maritime intermediate "B" Hockey Championship in Woodstock, N.B., defeating the Woodstock Karnes 6-4. Cornwallis had won the opening game in the two-game total score series, 8-5.

In a fast clean game, before the largest crowd to attend a hockey game in Woodstock since 1956, the home team maintained a strong 4-2 lead until the final minutes of play in their bid for the Maritime "B" title. Some 1,200 cheering fans attended the game.

The first period ended 1-1 and the second period 2-2. Woodstock went out in front 4-2 only to wilt before a sudden Navy offence in the final minutes of play. The Cornwallis team took charge of the game to score three goals in one minute 33 seconds. Joe Perron, Bob Gray and Bruce Campbell scored in that order for the winners to tie up the game. The Cornwallis goalie, Milne, played a sensational game, stopping repeated Woodstock breakaways and shots on goal.

This made 10 straight play-off wins for the *Cornwallis* squad. The Cougars eliminated Berwick, St. Annes, Lunenburg and Stellarton to capture the Nova Scotia intermediate "B" title.

Truro Policeman Wins Handgun Shoot

Top honours were won by Harold Campbell of the Truro Police Department in the third annual indoor pistol shoot of the Atlantic Command Handgun Club.

Held over the Easter week-end, the 1,800-point shoot drew 19 handgun devotees to HMC Dockyard's indoor range. Campbell scored 1,655 points to take first place in the open class. B. A. Goudey of Yarmouth's Highland Handgun Club, took second place in the open competition with 1,608 points.

PO Russ Martin, of HMCS Bonaventure, placed first in the sharpshooter class with 1,539 points, while C. B. Coates in the marksman class took first place with 1,335 points.

The *Bonaventure* team dominated the ship category matches.

Navy Supervises Exams for Divers

Some 50 civilian diving instructors, mostly from B.C. coastal points but some from the interior, sat for examinations at Esquimalt in mid-May under the supervision of the staff of RCN's Clearance Diving Establishment.

The three days of practical, written and oral examinations were based on the regulations recently approved by the B.C. Safety Council for sports divers.

Supervising the examinations were Lt.-Cdr. Ward W. Palmer, officer in charge of the Clearance Diving Establishment, and 15 other RCN volunteers.

DESTROYER DIPLOMACY

FIFTY SHIPS THAT SAVED THE WORLD is a fine title. It suggests the clash of the galleys at Salamis and the thunder of the guns at Jutland, but stirring action hardly comes into the book, although it deals, in a way, with the Battle of the Atlantic.

Philip Goodhart is not a seaman and, in spite of the title, his book is not naval so much as diplomatic history. Apart from interviews and personal correspondence with some of the people involved in the transactions, he does not seem to have any original sources, but he has brought together into one volume most of the involved political and diplomatie manœuvring involved in the exchange of the 50 Town class destroyers for bases in British western hemisphere colonies. The Rt. Hon. Winston Churchill was at the bottom of the affair and passages from his correspondence and speeches leaven the long chapters of chaffering, mostly taken up with the negotiations necessary to get Congressional approval for the transaction.

However, the first part of the book also deals with the strategic situation (why Britain was short of destroyers to start with and how her flotillas suffered heavy casualties early in the war) and the general history of operations at that time (the fall of France, the invasion of Scandinavia, the preparations for invading England). The last three of 16

chapters deal with the war-time careers of the ships, the bases, and an assessment of what the exchange meant to the two nations involved.

As a bibliographer, I must say that the "Appendix of References" is one of the worst things of the kind that I have ever seen. In it everything has been sacrificed to compactness, while using the same type as for the text of the book.

BOOKS for the SAILOR

No doubt it makes easier work for the printer and a cheaper book, but it is exceedingly difficult to use.

The fact that the RCN manned seven of the ships is mentioned and some of their exploits are chronicled in the chapter on "Active Service", but no Canadian sources of information were used apart from *The Mackenzie King Record*, by J. W. Pickersgill. This seems odd, because the ships were handed over at Halifax, where HMC Dockyard did much work to fit them out for their first Atlantic crossing. However, this is not a seaman's book.

Mr. Goodhart's conclusion is that the 50 ships were thrown into the Battle of the Atlantic when no other reinforcements were available, and did in fact enable Britain to hold out, thereby preventing Germany from winning the war. In that sense they "saved the world", but as much could probably be said of 50 other episodes of the war. The book is a useful, comprehensive account of the diplomatic and political transactions involving the "Town" class boats.—Ph. Ch.

FIFTY SHIPS THAT SAVED THE WORLD, by Philip Goodhart; William Heinemann, London and Toronto, 267 pp., \$8.

Sail Required To Bow to Steam

The age of sail, which has lingered on through steam into the era of nuclear submarines and surface ships, has been put into perspective.

On May 10 the United Nations intergovernmental maritime consultative organization ruled that henceforth steamships must be given the right of way in congested waters.

The reason given for the change in anti-collision rules is that sail in these days almost invariably means pleasure yachts rather than tall sailing ships.

The announcement pointed out that it is easier for a small yacht to alter course than it is for a 100,000-ton liner or tanker.

LETTER TO THE EDITOR

Sir:

Since its inception, the approach of *The Crowsnest* has been of an impersonal nature. By this I do not mean it has avoided the human touch; on the contrary. But it has followed a general rule of identifying authors by their initals only, and the editor not at all.

Though it had its disadvantages and was not entirely defensible, I believe this was a good policy. I do not believe, however, that *The Crowsnest* should be permitted to pass from existence without recognition being given where recognition is due.

A tribute is owing to the very many persons — members, former members and friends, of the Navy — who have contributed to and sustained *The Crowsnest* over the years. It is really quite remarkable, when you think of it, how well and how consistently these

voluntary contributors supported the magazine.

A special tribute is due to the man who virtually single-handed put out *The Crowsnest* these past 12 years. Lt.-Cdr. H. M. Colter (now retired) took over as editor in the spring of 1953. Since then, with no staff and little assistance, he has produced, month in and month out, a magazine that has been acclaimed as one of the best in the field.

For him, the job of editor extended well beyond the normal definition. Besides the usual editor's duties, he wrote and re-wrote copy, conducted a considerable correspondence, supervised the circulation and did whatever other chores were required. It was a constant battle, mainly against time. He didn't always win, but neither did he lose.

Being a one-man show, he had little relief from the pressure. Leave had to be squeezed in between issues, in bits and pieces. The quiet of evenings and of weekends was the best time to do thoughtful writing, read proofs and make up pages.

The phrase, "over and above the call . . ." may have been over-used, but there is a case where it fits.

Sir, you have worn the cloak of anonymity for so long that you may object to its removal and wish to withhold this letter. I shall point out that you have no legitimate grounds for doing so, inasmuch as it does not offend any of the rules with regard either to policy, security or good taste.

The very best of luck to you in your future endeavours.

R. C. HAYDEN Commander, RCN

Ottawa

RETIREMENTS

CPO ALEXANDER PAUL ALLEN; C1BN4; joined Apr. 24, 1939; served in Naden, Stadacona, Assiniboine, Venture, Hochelaga, Dauphin, Chicoutimi, RNO Lauzon, Fennel, Gatineau, Stadacona, Shediac, Humberstone, Givenchy, Crescent, Cornwallis, Crusader, Ontario, Malahat, Assiniboine, Cape Breton; awarded RCN Long Service and Good Conduct Medal; retired April 23, 1965.

PO JACK BARON, CD; P2WS2; joined March 19, 1946; served in York, Naden, Stadacona, Nootka, Sans Peur, Scotian, Iroquois, Portage, Magnificent, Coverdale, Wallaceburg, Haida, Resolute, Lanark, Lauzon, Cornwallis; retired April 1, 1965.

CPO BERNARD ALFRED BEST, CD; C1RM4; joined RCNVR Sept. 16, 1939; transferred to RCN Oct. 9, 1939; served in Toronto, naval division, Stadacona, Assiniboine, Naden, NSHQ, St. Hyacinthe, Bytown, Ville de Quebec, Alberni, Assiniboine, Nene, Niobe, Peregrine, Scotian, Nootka, Algonquin, Bonaventure, Albro Lake radio station, Cornwallis, Crescent, Iroquois, Prestonian; retired April 6, 1965.

MAURICE GELINAS, CD and 1st Clasp; C2HT4; served in RCNVR Dec. 30, 1940-Aug. 14, 1945; joined RCN April 30, 1946; served in Cartier, Stadacona, Acadia, Hochelaga II, Goderich, Avalon, Protector, Shelburne, Scotian, Bytown, Carleton, Donnacona, Iroquois, Magnificent, Bonaventure; retired April 30, 1965.

CPO RANDALL HIGGIN, CD; C2AM4; joined April 2, 1945; served in Tecumseh, Donnacona, Cornwallis, Niobe, Warrior, HMS Siskin, RNAS Gosport, Stadacona, RCNAS Dartmouth, Magnificent, Shearwater, Bonaventure; retired April 1, 1965.

CPO IVAN CLAIR LATIMER, CD; C2ET4; joined April 27, 1945; served in Queen, Donnacona, Cornwallis, Peregrine, Niobe, Warrior, Stadacona, Athabaskan, Naden, Crusader, Cayuga, Stettler, Beacon Hill, Cape Breton; retired April 26, 1965.

PO EDGAR OMAR LEGAULT, CD; P1WS4; joined Apr. 9, 1945; served in Star, Tecumseh, Nonsuch, Cornwallis, Naden, Stadacona, Quinte, Micmac, Scotian, Lloyd George, Iroquois, St. Stephen, Cayuga, Nootka, Magnificent, Haida, La Hulloise, New Liskeard, Quebec, Niagara, Buckingham, Granby, Sioux, Lauzon, Bonaventure, Quinte; retired April 8, 1965.

CPO LLOYD GEORGE MACARTHUR, CD; C1CM4; joined RCNVR April 6, 1940; transferred to RCN Apr 1, 1941; served in Stadacona, Assiniboine, Restigouche, Levis, Mont Joli, Avalon, Cornwallis, Brockville, Lanark, Peregrine, Warrior, Middlesex, Scotian, Naden, Iroquois, Magnificent, Swansea, Gatineau; retired April 5, 1965.

CPO DENNIS HERBERT MANN, CD, and 1st Clasp; C1SN4; joined Nov. 18, 1940; served in Naden, Givenchy, Malaspina, Prince Robert, Stadacona, Charny, Vegreville, Avalon, Burrard, Daerwood, Gryme, Bellechasse, Hespeler, Nanaimo, Uganda, Rockcliffe, Swansea, Cayuga, Wallaceburg, Ontario, Fraser; retired April 23, 1965.

PO GORDON FREDERICK MARTINDALE, CD; P2VS3; joined Apr. 23, 1945; served in

Hunter, York, Naden, Stadacona, Orangeville, Micmac, Warrior, Magnificent, Portage, Cabot, Hochelaga, Cornwallis, Saguenay, Athabaskan, Cayuga, Hochelaga; retired April 29, 1965.

CLIFFORD ERWIN McNAUGHT; C1BN4; joined Apr 4, 1938; served in Naden, Restigouche, Stadacona, Saguenay, Cornwallis, Peregrine, Niobe, HMS Searcher, RCNAS Dartmouth, Warrior, Magnificent, Shearwater, Bytown; awarded Long Service and Good Conduct Medal; retired April 25, 1965.

GORDON VINCENT PARLEE, CD, P1AT4; joined Apr. 27, 1945; served in Discovery, Donnacona, Naden, Stadacona, Niobe, HMS Gosling, RCNAS Dartmouth, Shearwater, Shearwater (19 CAG), Magnificent, 19th CAG), (31 SAG), (30 CAG), HMS Condor, Shearwater (VT 40), Naden, (VU 33); retired April 26, 1965.

ERNEST HENRY ROBERTS; C1BN4; joined RCNVR Nov. 18, 1940; transferred to RCN Jul. 4, 1945; served in Vancouver naval division; Naden, Givenchy, Prince Robert, Courtenay, Ingonish, Prince David, Stadacona, Cornwallis, Uganda, Quebec, Donnacona, Hochelaga, Bonaventure, Athabaskan; retired April 30, 1965.

CPO HARRY SHERMAN, CD; C1HT2; joined RCNVR July 22, 1943; transferred to RCN July 15, 1946; served in Tecumseh, Stadacona, Cornwallis, Peregrine, Shelburne, Givenchy, Rockcliffe, Naden, Ontario; retired April 10, 1965.

PO ALBERT EDWARD TILBURY, CD and 1st Clasp; P2EM2; joined RCNR April 8, 1940; transferred to RCN Aug. 20, 1945; served in Stadacona, Orillia, Hochelaga, Nipigon, Venture (Shore Patrol), Arras, Medicine Hat, Niobe, Prince Robert, Peregrine, Naden, 65th MTB Flotilla, Crusader, Crescent, Iroquois, Portage, Albro Lake, Athabaskan, Portage, Quebec, Prestonian, Penetang, Saguenay; retired April 7, 1965.

CPO WILLIAM REGINALD TOPPING CD; C1BN4; joined RCNVR Sept. 12, 1940; transferred to RCN Feb. 21, 1944; served in Kingston naval division, Stadacona, Skeena, Cornwallis, Fort William, Niobe, RNB Chatham, Haida, Peregrine, Micmac, Warrior, HMS Excellent, Huron, Portage, York, Restigouche, Fundy, Hunter, York; retired April 9, 1965.

PO JOHN FORBES LINDSAY, CD and 1st Clasp; P1ER4; joined RCNVR Apr. 18, 1941; transferred to RCN Sept. 25, 1945; served in Stadacona, Hamilton, Venture, Shelburne, Chilliwack, Hochelaga II, Joliette, Cornwallis, Peregrine, Niobe, Crusader, Scotian, Crescent, Nootka, Lloyd George, Iroquois, Verraine, Wallaceburg, Quebec, Whitethroat, Portage, New Liskeard, Fort Erie, Haida, Lanark, Cape Scott, Algonquin, Cayuga; retired April 25, 1965.

CPO BERTRAM ROBERT WALLS, CD and 1st Clasp; C2ER4; joined RCNVR Sept. 21, 1939; transferred to RCN Nov. 21, 1945; served in Vancouver, naval division, Naden, Givenchy, Wolf, Ungava, Quatsino, Stadacona, Niobe, HMS Berwick, Hochelaga, Uganda, Ontario, Canso, Peregrine, Discovery, Rockcliffe, Athabaskan, Sault Ste. Marie, ML 124, Antigonish, Cornwallis, Cayuga, Sioux, Royal Roads, Saguenay, Beacon Hill; retired April 5, 1965.



His Worship Mayor R. B. Wilson, of Victoria, takes the salute as the Cadet Wing of the Canadian Services College Royal Roads marches past after church services at Christ Church and St. Andrew's Cathedral on April 11. (RR-4068)

OFFICERS RETIRE

LT.-CDR. ALFRED DOUGLAS CARSON, CD; commenced service in the RCNVR on July 13, 1942, as a warrant officer (Special Branch); served in HMCS Montreal, Cornwallis, NSHQ; transferred to RCN on May 9, 1946; served in Niobe, Stadacona, Naden, NDHQ, Hochelaga, Discovery; last appointment, Naden on staff of Principal Naval Overseer West Coast; commenced leave May 28, 1965; retires on Dec. 14, 1965.

COMMODORE JOHN DEANE, CD; transferred from RNVR to RCNVR July 5, 1943, as an electrical lieutenant-commander; served in Niobe, Stadacona, Naval Headquarters; transferred to RCN on Sept. 15, 1945; served in NDHQ, Ontario, Stadacona, PNO Sorel, Naden; last appointment, Bytown on staff of CNTS as D/CNTS; commenced leave May 10, 1965; retires on Dec. 4, 1965.

CHAPLAIN VI (P), REV. DR. ERNEST GORDON BLAIR FOOTE, OBE, CD; commenced service in the RCN on Jan. 22, 1941, as Chaplain (P); served in Stadacona, St. Hyacinthe, Givenchy, Chatham, York, Niobe, NSHQ; Athabaskan, Bytown, Quebec, Kootenay; last appointment, Bytown as Chaplain General (P); hospitalized; to proceed on retirement leave on release.

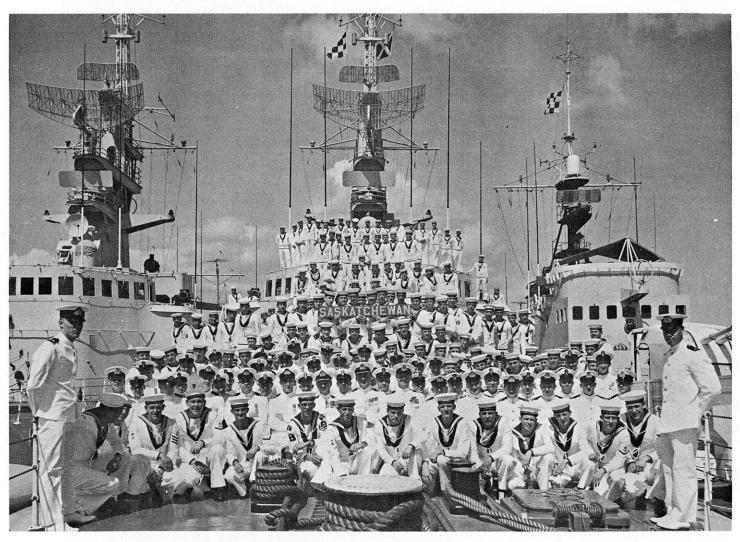
LT.-CDR CHARLES DELSWORTH GIB-SON, CD; commenced service in the RCNVR on March 25, 1942, as a probationary sublicutenant; served in Halifax, naval division, Stadacona, Kamloops, Hochelaga, Guelph; transferred to RCN on Dec. 12, 1945, as lieutenant; served in Grou, Stadacona, HMS Vengeance, HMS Rocket, Magnificent, NDHQ, Niagara, Jonquiere; last appointment, Bytown on staff of DNI; commenced leave May 29, 1965; retires on Dec. 15, 1965.

CDR. RAYMOND ALBERT GREEN, CD; wartime service with Royal Navy; commenced service on May 31, 1947, in the RCN(R); transferred to RCN June 1, 1947, as lieutenant (O); served in Discovery, NAS Dartmouth, Quebec, Stadacona, Magnificent, NDHQ, Niobe, (Defence College Paris), Niobe, (Eastlant), Niagara (NATO Standing Group); last appointment, Bytown on staff of Director Naval Plans; commenced leave April 30, 1965; retires on Oct. 25, 1965.

LT.-CDR. LESLIE HEALEY, CD; commenced service in the RCN on Jan. 5, 1935, as an ordinary seaman; promoted to acting warrant officer on April 2, 1949; served in Naden, Skeena, Stadacona, HMS Victory, HMS Vernon, Ottawa, Cornwallis, St. Clair, Nootka, Stadacona, Naden, Ontario, Cornwallis, NDHQ, Algonquin; last appointment Stadacona on staff of Comsuptlant for Ship Repair; commenced leave May 7, 1965; retires on Jan. 1, 1966.

LT. GERALD ERNEST HEATLEY, CD; commenced service in the RCN(R) on Nov. 20, 1947, as acting sub-lieutenant; served in Carleton, Stadacona, Naval Headquarters; last appointment, Carleton as Area Recruiting Officer North Eastern Ontario; retired on April 6, 1965.

LT.-CDR. MARCUS ORMOND JONES, CD; commenced service in the RCNVR on Sept. 19, 1939, as an ordinary seaman; promoted to probationary sub-lieutenant on July 13, 1942; served in Montreal naval division, Stadacona, Andre Dupre, Ulna, Moose, Macsin, NOIC Newfoundland, Marvita, Venture,



FAMILY PORTRAIT—The ship's company of HMCS Saskatchewan posed at Pearl Harbour for this portrait during this spring's cruise to the Far East. At the left is the destroyer escort Mackenzie and at the right, the ocean escort Beacon Hill. (CCC2-1727)

Kamsack, Donnacona; demobilized Oct. 5, 1945; commenced service on March 4, 1946, in the RCN(R), as a lieutenant; transferred to RCN on March 8, 1946; served in Donnacona, Stadacona, Naden, Queen, Coverdale, Ontario, Shearwater, Outremont, Shelburne, Naval Headquarters; last appointment, Bytown on staff of DNI; commenced leave May 21, 1965; retires Nov. 14, 1965.

LT.-CDR. EUGENE WLADYSLAU MIODONSKI, CD; served in Polish Navy 1938-1947; Royal Pakistan Navy from 1950-1955; commenced service Aug. 12, 1955, in the RCN(R), as a lieutenant-commander; transferred to RCN on Aug. 12, 1955; served in Montcalm, Cornwallis, Stadacona, Star, Naval Headquarters; last appointment, Bytown, on staff of Asst. Director Fleet Maintenance; commenced leave, May 15, 1965; retires on Aug. 12, 1965.

LT.-CDR. DENNIS BOYCE PERRINS, CD; commenced service in the RCNVR on June 5, 1941, as a probationary sub-lieutenant; served in Victoria naval division, Naden, Royal Roads, Chaleur II, Goderich, Cornerich, Cornwallis, Naval Headquarters, Stadacona, Avalon; demobilized on Aug. 14, 1945;

commenced service in RCN Oct. 29, 1945; served in Malahat, Discovery, Naden, Ontario, Naval Headquarters, Niagara, Crusader, Star (COND); last appointment, Bytown on staff of Asst. Director Ship Design and Construction (Contract Design); commenced leave May 20, 1965; retires on Oct. 23, 1965.

LT.-CDR. JOHN KENNETH TRANTON, CD; commenced service in the RCN on Sept. 25, 1937, as an acting warrant supply officer on June 1, 1942; served in Stadacona, Skeena, Fundy, Venture, NOIC Montreal, Prince Henry, Naden, Givenchy, Niobe, Cornwallis, Protector, Burrard, Stadacona, HMS Merganser, Shearwater, Donnacona, Ontario, Sussexvale, Naval Headquarters; last appointment, Bytown on staff of DMST as A/DMST Provisioning; commenced leave on May 15, 1965; retires on Jan. 1, 1966.

CHAPLAIN OF THE FLEET (RC) JOSEPH EDWARD WHELLY, CD; commenced service in the RCN on June 28, 1943, as a Chaplain (RC); served in Captor, Avalon, Cornwallis, Brunswicker, Warrior, Naden, Stadacona, Naval Headquarters, Quebec, Niobe II; last appointment, Bytown on staff of Chaplain

General (RC) as Deputy Chaplain General (RC) RCN and as Chaplain of the Fleet (RC); commenced leave May 17, 1965; retires on Nov. 11, 1965.

LT.-CDR. DONALD MACKENZIE WATERS, CD; commenced service in the RCN on Aug. 25, 1939, as a cadet; served in Stadacona, HMS Britannia, HMS Liverpool, HMS York, HMS Kimberley, HMS Valiant, Malpeque, Restigouche, Saskatchewan, Crescent, Naden, Naval Headquarters, Cornwallis, Ontario, Niobe, Fortune, Hochelaga; last appointment, Hochelaga as executive officer; commenced leave May 3, 1965; retires on Dec. 5, 1965.

LT.-CDR. WILLIAM LESLIE WATSON, CD; commenced service in the RCNVR on July 13, 1943, as a warrant officer (SB); served in Stadacona, Cornwallis, St. Hyacinthe, HMS Malabar, Somers Isles, Scotian; transferred to RCN as Lt (L) on Jan. 16, 1946; served in Stadacona, Scotian, Naval Headquarters, Ontario; last appointment, Bytown on staff of A/DNT (Future Requirements and Equipment); commenced leave May 30, 1965; retires on Dec. 9, 1965.

A Good Commission

TT HAS BEEN a good commission.

The life-span of *The Crowsnest* has coincided with a period in which much has happened in and to the Royal Canadian Navy and the RCN Reserve.

There have been good times, and there has been the occasional bad one. Seldom have times been dull.

More than anything else, perhaps, it has been a period of change. A look through past volumes of this magazine reveals just how many changes have taken place in this navy of ours since *The Crowsnest* was born, in 1948. Indeed, a person who left the service in that year and did not maintain contact would be hard put to recognize it as the same navy if he were to return today.

One small illustration: There are those who think the navy still uses depth charges. Yet just recently someone tried to find a depth charge thrower and in all of Canada could locate only one, in the National War Museum.

The Crowsnest has been privileged to serve as a chronicle of the Navy during an eventful, often exciting, 16-and-a-half years. Now The Crowsnest, which in those years recorded so many changes, itself bows to change.

For those who have supported, contributed to and produced *The Crowsnest* there is satisfaction in the knowledge that its function is to be

CROWSNEST



continued in an all-forces magazine. There is satisfaction, too, in the knowledge that through their efforts much of the RCN's history, 1948-1965, was written and recorded, and will be preserved.

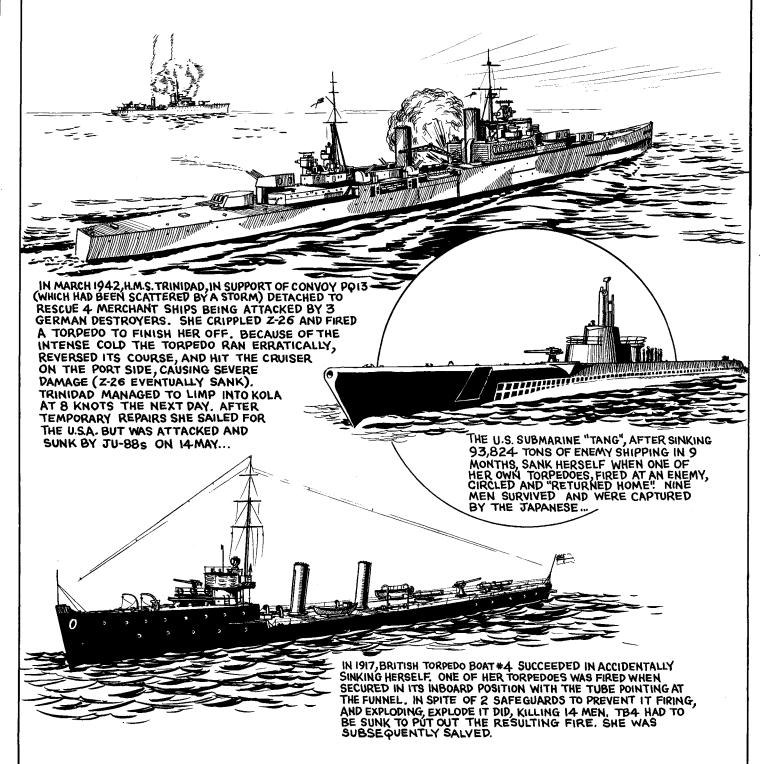
Yes, it has been a good commission.

Naval Lore Corner

Number 138

'SHIPS THAT TORPEDOED THEMSELVES'

IN WARTIME MANY BIZARRE INCIDENTS OCCUR RESULTING SOMETIMES IN THE UNEXPECTED, THE MALFUNCTIONING OF EQUIPMENT CAUSING TRAGIC ACCIDENTS...



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THE NEWS EDITOR. THE DAILY COLONIST, VICTORIA, B.C.

CRO.X.

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