

The CROWSNEST



PACIFIC NAVAL
LABORATORY

MAR- 4 1963

ESQUIMALT, B. C.



CONTENTS

	Page
<i>RCN News Review</i>	2
<i>Shadow and Substance</i>	4
<i>Friendly Dublin</i>	5
<i>Officers and Men</i>	9
<i>Canadian Coast Guard</i>	12
<i>The Last Punch</i>	15
<i>Ancient Anchor</i>	18
<i>Afloat and Ashore</i>	19
<i>An Appraisal of the HSS-2</i>	21
<i>Home from the Sea</i>	22
<i>The Almonte Gunners</i>	23
<i>Books for the Sailor</i>	25
<i>The Navy Plays</i>	27
<i>Retirements</i>	28
<i>Naval Lore Corner No. 112</i>	Inside Back Cover

The Cover—The Bay of Biscay was behaving fairly well but there was sufficient swell for the *Terra Nova* to hit a milestone just as PO Ernie Manuel got the *Gatineau* in his camera sights. (HS-70380-23)

LADY OF THE MONTH

Although there are more ships than one in the picture on the opposite page, attention is directed in particular to the leading frigate of the trio on patrol off the East Coast. She is the *Victoriaville*, of the Third Canadian Escort Squadron, and the picture of her on North Atlantic patrol is symbolic of the fact the modernized Prestonian class frigates are continuing to carry their share of the RCN's operational burden.

Last summer the *Victoriaville* sailed warmer, smoother waters as she carried out training duties on the Great Lakes.

Shown astern of her are the *Inch A..an* and the *New Waterford*, both of whom have been designated "Ladies of the Month" in past issues. (DNS-30094)

Negative numbers of RCN photographs reproduced in *The Crowsnest* are included with the caption for the benefit of persons wishing to obtain prints of the photos.

This they may do by sending an order to the Naval Secretary, Naval Headquarters, Ottawa, attention Directorate of Naval Photography, quoting the negative number of the photograph, giving the size and finish required, and enclosing a money order for the full amount, payable to the Receiver General of Canada.

Sizes, finish and the National Defence standardized prices, follow:

4 x 5 (or smaller) glossy finish only ..	\$.10
6½ x 8½ glossy finish only40
8 x 10 glossy or matte finish50
11 x 14 matte finish only	1.00

SUBSCRIPTION RATE

The Crowsnest may be subscribed for at the rate of \$1 per year; outside of North America, \$1.50. Orders, accompanied by cheque or money orders made to the Receiver General of Canada, should be sent to:

THE QUEEN'S PRINTER,
Department of Public Printing
and Stationery,
Ottawa, Ont.

Communications, other than those relating to subscriptions, should be addressed to:

EDITOR,
The Crowsnest,
Naval Headquarters,
Ottawa, Ont.



RCN NEWS REVIEW

Tribal class destroyers of the First Escort Squadron at Halifax manoeuvre off port. Left to right are the Micmac, Nootka and Cayuga. Six tribals are in service and a seventh, the Iroquois, is in operational reserve. (DNS-30118A)

The RCN in 1962

EAST, west, north and south, RCN ships stayed at sea for 7,143 days, logging 1,234,047 miles on training, anti-submarine and operational duties during 1962.

While the surface fleet went about its duties, HMCS *Grilse* logged 16,560 miles in 147 days at sea, much of it underwater, as a target for anti-submarine ships of the Pacific Command and, on the East Coast, the two Royal Navy submarines of the Sixth Submarine Squadron racked up similar mileages on similar duties.

Meanwhile, above the sea, naval aircraft flew 5 million miles in 40,000 hours on training duties, patrol and deck landings.

Naval pilots made 4,269 day and night deck landings on HMCS *Bonaventure*, with only one minor accident, and a Tracker touched down for the 10,000th deck landing since the carrier was commissioned in 1957.

In the course of logging these nautical and air miles Canadian sailors saw Hudson Bay, Canadian and United States ports on the Great Lakes and on the east and west coasts and visited Bermuda, Jamaica, Trinidad, Tobago, Puerto Rico, Mexico, Japan, Malaya, Ceylon, Hong Kong, Singapore, Alaska, Hawaii, Guam, Midway, Germany,

Britain, France, Spain, Gibraltar, Ghana, Ivory Coast, Nigeria, Senegal, Holland and Ireland.

Personnel strength at the year's end was 21,573, which included 2,630 officers, 18,246 men and wrens, 543 officer cadets, and 154 apprentices. Strength of the reserve forces stood at 4,051 officers, officer cadets, men and wrens.

Pacific Command divers spent nearly a year underwater, 7,204 hours in training and on public service and service duties.

In October, HMCS *Mackenzie*, name ship of her class, was commissioned at Canadian Vickers, Ltd., Montreal. Another ship of the same class, HMCS *Qu'Appelle*, and HMCS *Provider*, a 22,000-ton fast fleet replenishment ship, were launched during the year at Lauzon, Quebec. They are due for completion this year.

Two destroyer escorts of the St. Laurent class, the *Assiniboine* and St.

Laurent, were taken in hand for conversion, which will add helicopter platforms and the Canadian-developed variable depth sonar. The Royal Canadian Navy was first to experiment with helicopters operating from anti-submarine escort vessels, starting with HMCS *Buckingham* in 1956. The St. Laurent and *Assiniboine* will rejoin the fleet late in 1963.

A new helicopter will soon join the fleet for anti-submarine and other duties. The Sikorsky CHSS-2, a rugged machine designed for anti-submarine operations and able to carry out search and attack missions day or night in all types of weather, will operate from destroyer escorts, the *Bonaventure* and other ships as required. Eight have been ordered and others will follow.

While this building for the future was going on, the Navy was dealing with the problem of obsolescence. HMCS *Iroquois*, Canada's first Tribal class destroyer, a veteran completed in 1942 and a heroine of the Murmansk run, the English Channel, the Bay of Biscay and the Korean Theatre, was paid off into operational reserve.

The Banshee jet fighters, having reached the end of their useful lives, were taken out of service, leaving the *Bonaventure's* air component consisting entirely of Trackers and helicopters.

New Numbers

The January 1963 issue of The Crowsnest has been designated Volume 15, Number 1, this and future issues being numbered to conform with the calendar year. To bring this about, the November and December 1962 issues were numbered 13 and 14 respectively.

Announcement was made of a program to provide eight general purpose frigates—3,400-ton, missile-armed ships—to augment present specialized anti-submarine destroyer escorts.

Negotiations were still underway to obtain three conventionally powered, modern, British submarines, primarily for training, but also capable of anti-submarine operations.

In Halifax, an operations trainer, a highly complex installation, went into service to provide training and evaluation ashore for ship's anti-submarine teams.

STATISTICALLY, the RCN had an impressive year. So did the Royal Canadian Naval Reserve.

Fifteen hundred men and wrens of the RCNR completed annual naval training in various RCN ships and establishments. They included 600 new entries, trained at the Great Lakes Training Centre in Hamilton, and 200 new entries from western divisions who completed their training on the West Coast.

Many naval reservists took specialized training in band, medical, supply and other trades. Reserve divers were called on to take part in operational work during the year.

Fifty chief and petty officers from various divisions were trained in instructional techniques at naval academic schools and 50 senior ranks received leadership training at the school in Cornwallis. Advanced training at sea was provided for 120 men of the seamen trade in RCN ships attached to the GLTC.

More than 200 communicators received training at the Communications Centre at Hamilton, while others went to sea out of Halifax, Esquimalt and Hamilton. Fifty technical tradesmen in the shipwright, engineering and electrical fields went to sea from either coast.

A program started in 1961 with 18 bandsmen expanded in 1962 to 50 reservist bandsmen from 11 naval divisions. They combined at *Patriot* to form one big band.

One hundred new-entry RCNR Wrens completed their basic training at HMCS Cornwallis, while a number of senior Wrens were trained in medical, supply, communications and plotting trades.

Three courses were held during the summer for naval control of shipping officers at Hamilton. From Downsview and Patricia Bay, near Victoria, the two RCNR air squadrons flew 2,850 hours for a total of 420,000 air miles.

Five RCN ships carried out the RCNR training program on the Great Lakes, assisted for three weeks by six units of the First Canadian Minesweeping Squadron. The ships visited 25 Canadian and US ports on the Lakes and, in addition to training requirements, took part in anniversary celebrations and other community events in a number of ports.

From June to September the *Porte St. Louis*, *Porte St. Jean* and the *Scatari* steamed a total of 12,130 miles on the Lakes with the *Porte St. Louis* out in front with 4,619 miles in 48 days. The *Porte St. Jean* steamed 4,229 miles in 42 days and the *Scatari* 3,282 miles in 52 days.

In this time, too, the *Porte St. Jean* rescued a U.S. yacht off Cobourg, Ontario, and towed her to Ogdensburg, N.Y., and HMCS *Victoriaville* aided a disabled Canadian motor cruiser which had been drifting overnight without fuel on Lake Ontario.

A highlight of the year came on June 13 when HMCS *Inch Arran* played host to Her Majesty Queen Elizabeth, the Queen Mother, during a brief cruise on the St. Lawrence Seaway. It was the first time in nearly a quarter of a century that Her Majesty had visited a Royal Canadian Navy warship in Canadian waters.

IN THE FIELD of public service, HMCS *Bonaventure* assisted in the rescue of survivors of the crash of the Flying Tiger Airlines Superconstellation in the Atlantic, caring for the seriously injured and landing survivors and dead at Shannon, Ireland.

A VU-33 helicopter rescued a stranded fisherman from an island off Victoria, and later rescued the crew of a crashed glider near Hope, B.C. The squadron also assisted in several searches for missing persons.

At the same time, on both coasts, divers were busy, along with bomb disposal squads, in dealing with bombs, mines, smoke bombs and other explosive and dangerous devices, found on beaches or elsewhere. Nearly two dozen searches were made for drowning victims and 12 bodies were recovered. Three searches were made to assist police locate stolen goods.

In 1962 the Fleet took part in exercises and manoeuvres with NATO and individual navies. These included Dawn Breeze Seven, Sharp Squall Six, Fallex '62, Sweep Clear Seven, Exercise War Dance, Exercise Crab-Pot, Jetex '62, and others, during and following operational and training cruises.

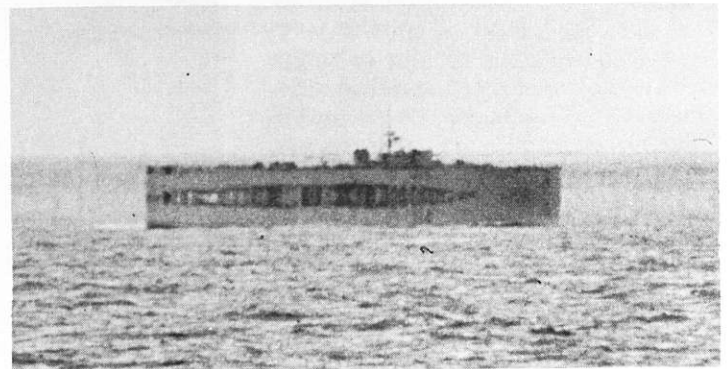
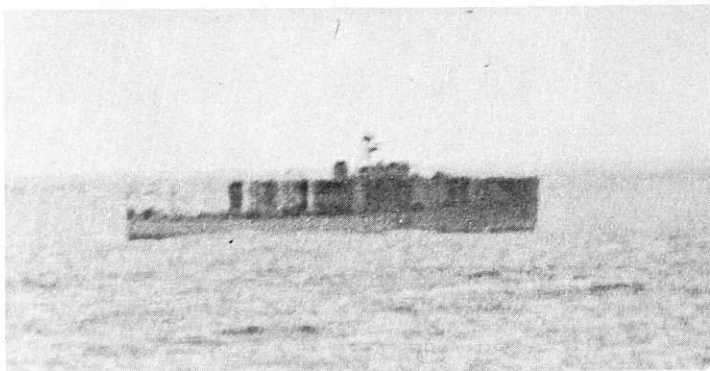
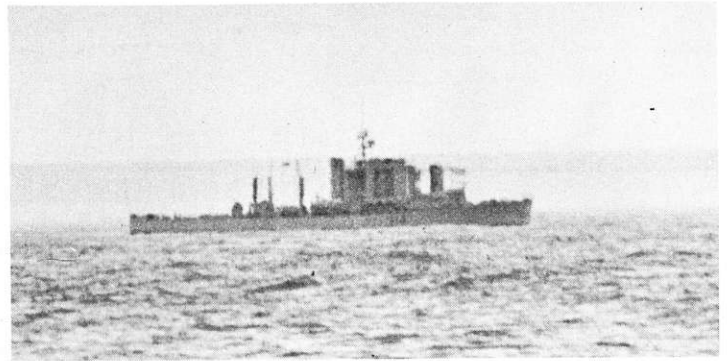
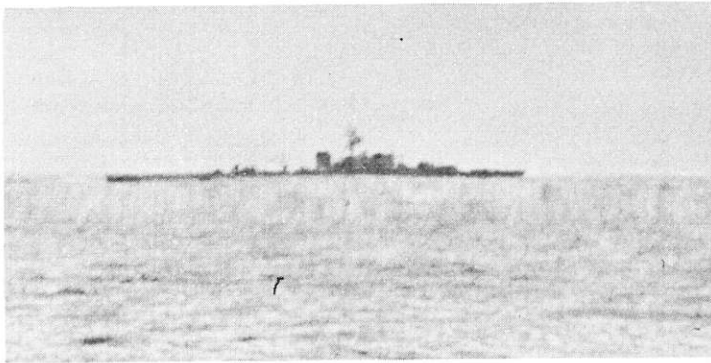
The Navy's state of operational efficiency and readiness was demonstrated in the fourth week of October when it quietly, smoothly and quickly put into effect, in the face of international crisis, the measures it had been practising in exercises.

Ships in harbour topped up with fuel, ammunition and stores and put to sea, those already at sea stayed there, and on both coasts the fleet was brought to a high state of readiness. In naval nerve centres in the Atlantic and Pacific Commands and at Naval Headquarters in Ottawa, round-the-clock watches were re-inforced. When the Cuban crisis eased, normal fleet operations were resumed.



Ldg. Sea. Larry Uwins, a former polio victim who built himself into a national amateur distance swimmer, is presented with a Chief of Naval Staff Commendation by Rear-Admiral K. L. Dyer, Flag Officer Atlantic Coast. Last summer Ldg. Sea. Uwins rescued two militiamen when they were in danger of being swept out to sea off Lawrencetown Beach, N.S. (HS-70865)

SHADOW AND SUBSTANCE



The sharp temperature gradients above the northern seas can produce optical effects comparable to the famous mirages of the Sahara Desert. PO Ernie Manuel, of HMC Dockyard photo staff in Halifax, aimed his Graphlex Super "D" camera, equipped with 15" lens, at HMCS Buckingham, sailing the chill waters of Hudson Bay, and came up with a variety of effects. Buckingham sailors reported no ill effects from the compression and expansion their ship had undergone during the period of mirage. (HS-L-112)

FRIENDLY DUBLIN

ASK ANY MAN of the Ninth Escort Squadron to name his favourite liberty port, and the chances are he'll name Dublin, Ireland. Unless, of course, he says "Eire" instead of Ireland, just to prove he was really there one sparkling morning of last July when five frigates of Cortron Nine steamed up the River Liffey.

The visit was the highlight of UNTD cruise BRAVO, and 120 of the 867 Canadians present were cadets from universities across Canada.

Perhaps it was the cadets' high spirits, or perhaps just the fact that the squadron arrived on a Friday the Thirteenth which tickled the Dubliners' famed sense of humour. Whatever it was, citizens of the ancient capital turned out in force to greet their Canadian visitors and provided them with an unforgettable five days of sports, sight-seeing, dances and banquets, all spiced with the witty conversation for which Irishmen are famous.

Although Dublin's large and bustling waterfront was crowded with more than 30 deep sea liners and scores of coasting vessels, the choicest berth of all was reserved for the visiting squadron at Sir John Rogerson Quay—a stone's throw from the brightest lights of O'Connell Street.

The Lord Mayor of Dublin himself visited the squadron during the busy days that followed, as did more than 11,000 citizens and children in the course of various visitors' days and conducted tours for orphans and youth groups. The Lord Mayor called on no fewer than three occasions. News items and photographs appeared almost daily in each of the city's nine newspapers, and radio and TV coverage was equally flattering.

Highlight of the squadron's goodwill efforts was unquestionably a folk-song group of officers, cadets and seamen, known as the "Cortron Nine Choir", which spent a large part of the five days in port rehearsing and producing a 30-minute program of cross-Canada folk songs which was broadcast over Radio Eireann on radio and later on television. Organizer of this popular show was Lt. D. N. MacGillivray, executive officer of HMCS Lauzon.

Although nearly 700 libertymen were landed daily, it was not possible to



Four ships of the Ninth Canadian Escort Squadron lie alongside in the River Liffey at Dublin. (CCC9-182)

accept all the invitations for tours and dances, and a "rationing" policy became necessary. The only bored group was the shore patrol, which found nothing to do on the first night, and was abolished at the suggestion of the Dublin "guardia". (Never use the word "police" in Dublin.)

Dublin even passed the ultimate acid test of hospitality as far as libertymen are concerned: hundreds of citizens

stopped seamen on the street to ask them to their homes for Sunday dinner.

Typical of the friendly welcome met everywhere was the experience of one group of petty officers who visited one of Dublin's famed "singing pubs". Arriving late on Saturday evening, they found every table filled, and the manager apologizing that he could offer standing room only. But, once the sailors were in the room, civilians present



Officer cadets pause in front of Parliament House in Dublin to check a map of the city before proceeding to other points of historical interest. (CCCP-179)



The Rt. Hon. James S. O'Keefe, Lord Mayor of Dublin, signs the guest book in the cabin of Cdr. K. E. Grant, senior officer of the Ninth Canadian Escort Squadron and commanding officer of the Cap de la Madeleine. (CCC9-202)



During the Dublin visit, talented officers, UNTD cadets and men presented a musical program over Radio Eireann. They are shown during rehearsal. (CCC9-181)



UNTD cadets felt they had wandered far into the past as they paused by a 300-year-old thatched cottage in Sully Noggin, Dublin. What didn't seem to belong were the power lines and television aerials. (CCC9-178)

leaped to their feet and stopped the music until the Canadians were seated at the best table in the house.

Coupled with such displays of courtesy and welcome was a second virtue of Dublin which warmed every seaman's heart: the prices were low. A respectable lunch ashore cost the equivalent of 50 cents. A two-mile taxi ride cost 30 cents. Although there is no lack of top-quality luxury merchandise in the modern shops along Grafton Street for wealthy tourists, most Dubliners enjoy life on modest incomes, and merchants and tradesmen set their prices accordingly.

Many RCN libertymen thought they had already met Irish hospitality in Londonderry and Belfast, but even they were overwhelmed by the holiday atmosphere of Dublin in mid-summer.

"Too bad you'll not be visiting Cork or Waterford or the southern towns",

said one Dubliner. "Down there you'd meet some real southern hospitality!" He regarded Dubliners as solemn and unfriendly—by Irish standards!

Another surprise for Canadian visitors was the handsome appearance of Dublin in summer, unlike the image so often found in literature of its slums and poverty. Instead, its elegant squares and Regency mansions suggested London's Mayfair district.

Unlike London, however, Dublin's venerable buildings have escaped the attention of modern business and the Luftwaffe, and appear today much as they looked a century ago, except for the occasional Black-and-Tan bullet scar.

Although the 1916-1925 War of Independence is obviously a proud chapter in Irish history books, there is clearly no bitterness towards Britain among today's young Dubliners. They are quick

to acknowledge the assistance their country receives from England in all walks of life: commerce, banking, news, radio, television and transportation. Increasing numbers of young Irishmen are turning to England for education and employment. Officers of Eire's Navy and Army attend courses in British establishments, and are in daily communication with Britain's armed forces in matters of search-and-rescue, weather forecasts, hydrographic information and fishery protection.

Ireland's small but seamanlike naval service limits its efforts to coast guard, fishery patrol, revenue and survey duties. Four ex-Flower class corvettes and a force of 500 officers and men prove adequate for this program. Because these ships are based at Cork, the visiting frigates met only the staff of Naval Headquarters at Dublin—a staff consisting of one captain, two

lieutenant-commanders and a lieutenant!

The Irish Army, of 13,000 officers and men, has a more ambitious role these days in the UN forces in the Congo, where most soldiers have now completed at least one tour of six months or longer. Many have completed three such tours.

Like Eire's sailors, its soldiers are clearly tough, battle-hardened and highly disciplined—with no need for any "5 BX" plan. Their training, unhampered by demands for lengthy technical courses, places great emphasis on marching, climbing, unarmed combat, marksmanship and riding. Recently they have added street fighting and jungle warfare to their list of skills.

Ireland's mild, moist climate, much like British Columbia's, encourages outdoor living and sports. Soccer players

of the Canadian squadron had a surprise in store for them at their first Irish "football" game. As played in Eire, football is a mixture of soccer, rugger and basketball, with occasional overtones of NHL hockey (Chicago style). No protective equipment is worn, mayhem is normal, and it is fairly commonplace to have three or more unconscious players on the field receiving first aid, while the game continues around them. Spectators frequently reinforce their teams, but it is generally accepted that stretcher bearers should not kick the ball until they have delivered their patients to the sidelines.

Dublin is rarely fortunate among large cities because it possesses a handsome public sports area, Phoenix Park, of 2,000 acres. Formerly the private estate of Lord Chesterfield, the park cuts deeply into the modern city, and

contains scores of football fields, track ovals, race tracks, pony clubs, a botanical garden and a vast zoo.

In spite of these public facilities, the park is still largely unchanged, and offers several miles of rolling grasslands and groves of oak and chestnut trees where a hard of wild deer roams freely. The Irish Army's world famous riding team may be seen jumping there almost any day of the year.

But perhaps the most popular hobby of Dubliners is their good conversation and variety of interest. Their favorite Gaelic toast, translated freely, means: "Here's to your health. May we drink to the same again this day next year. And may your grave be in Ireland."

Unless the Canadian visitor exercises caution as the Guinness and good talk flow around him, the last part of the toast can come dangerously close.

SUMMER TRAINING, EAST COAST

NOVA SCOTIA may be "Canada's Ocean Playground" to vacationers, but to a thousand members of the Royal Canadian Naval Reserve across the nation last summer it meant hard though interesting work with the regular Navy.

Officers, cadets, men and women from 21 divisions in Canada came to this seaside province for a fortnight or more of on-the-spot training and experience afloat and ashore. Most of these "working tourists" arrived in the summertime, many of them sacrificing vacation time from civilian employment to do so.

The indications were that they liked it. So far as the regular Navy is concerned, the feeling is mutual. For the Reserves have been intertwined with naval tradition officially since 1923 and the peace time organization of that day heralded the enormous burden they bore in the Second World War. Today, 4,000-odd dedicated "citizen-sailors" carry on the tradition.

Many hundreds of Reserves, particularly the new entry sailors, went to the Hamilton, Ontario, Great Lakes Training Centre, which is activated each summer with warships allocated from the Atlantic Command to give them shipboard experience in Canada's "third sea". Others received suitable training on the West Coast base of the RCN.

Directing their training on the Atlantic Coast was Cdr. I. B. B. Morrow, the overall training officer of the vast

Fleet School in the Command. His right arm in this facet of the job was Lt.-Cdr. R. J. Paul, who is reserve training officer.

From April to mid-September—the busiest period—they arranged suitable activities for more than 240 RCNR officers, close to 450 cadets from University Naval Training Divisions (UNTD), plus 380 men and women. Main centres were Halifax and HMCS Cornwallis, in Nova Scotia's Annapolis Valley.

Some Reserves pinch-hit in sea billets for regulars absent on courses or annual leave. Sub-Lt. Georges Proulx, of L'Orignal, Ont. a law student at Queen's University, served in the destroyer escort *Sioux* and liked it. Sub-Lt. Sidney Boloten, a Montrealer in HMCS *St. Croix*, got his first taste of shipboard life as an officer rather than a cadet. Both were commissioned in 1962 from the UNTD.



PO H. M. Christiansen, a Winnipeg electrician, worked off a comparable trade test in the naval dockyard. PO J. J. Farrell, Kingston carpenter, was in the Fleet School for two weeks to learn the naval application of his trade.

Lt. A. M. Garneau, taking law at the University of Ottawa, and Sub-Lt. P. T. Perrault, Quebec City, used their bilingualism to translate UNTD tests in the Fleet School. Their co-ordinator was Lt. Bernard McCabe, Dalhousie law student, who entered HMCS *Scotian*, Halifax naval division, in 1956 as an ordinary seaman.

Lt. Shirley Weber, Portage La Prairie, Manitoba, helped the dietician at the Canadian Forces Hospital in Halifax. Professor of Home Economics at the University of Manitoba, she finds summer training has "helped tremendously" in her teaching career:

"At the university I am always involved in the theoretical side only. It is a pleasure to get this bit of field work."

Wren T. A. Graham spent four months in the supply division at *Cornwallis*. A University of Ottawa arts student, she says the Reserve not only enhances her personal qualities but also helps put her through college. Wren J. E. McDonald, of Windsor, Ontario, trained on-the-job in the Forces hospital *Stadacona*. As a qualified medical assistant, she feels she gained "something valuable" to offer her home division, HMCS *Hunter*.

OFFICERS AND MEN

St. Therese Wins Sonar Award

The Pacific Command's sonar proficiency award for 1962 has been won by the frigate *Ste. Therese*, of the Fourth Canadian Escort Squadron.

The *Ste. Therese* achieved an 85.6 per cent mark in the annual event. Runners-up were two other frigates of the same squadron, the *Jonquiere* and *Antigonish*, each with 83.2 per cent.

650 Donations To Blood Bank

Officers and men of the Pacific Command donated a total of 650 pints of blood to the Red Cross Blood transfusion service during a two-day clinic in Victoria and Esquimalt.

On January 3 sailors from ships of the Second Canadian Escort Squadron gave 150 pints of blood at Red Cross

Rotterdam Visit Hailed as Success

An informal visit was made last fall to the port of Rotterdam by the aircraft carrier *Bonaventure*, and destroyer escorts, *Crescent*, *Nootka*, *Athabaskan* and *Cayuga*, with RCN Air Squadrons VS 880 and HS 50 embarked in the carrier. The Canadian Charge d'Affaires, The Hague, has since commented as follows on the visit:

"There is no doubt that this visit was exceedingly successful from all points of view. The Dutch are always glad to greet Canadians. The warmth of their welcome for the Navy was heartfelt and deeply genuine. The RCN in their turn, upheld the fine traditions of their service and did much to enhance the continuing good name of Canada in the Netherlands.

"All Canadians living in the Netherlands are sincerely proud of the RCN and are most grateful to CANCOMFLT, his Commanding Officers, Officers and men for all that they did for Canada during their recent visit. We share the hope frequently expressed during this visit by the Dutch that visits by HMC Ships to the Netherlands may take place at more frequent intervals in the future.

"The visit underlined the close relationship between the RCN and the Netherlands Navy based on the fact of similarity in size, equipment and role, and kept fresh personal and professional contacts . . . An outstanding visit which has done much to foster the good relations between our two countries."



Believed to be the champion blood donor of the Pacific Command CPO Frank Paulsen of HMCS Ottawa, on January 4 gave his 40th pint to the Red Cross Blood Clinic. (E-70174)

House, Victoria. They went in buses and private cars to make their contribution to their community.

The following day 500 personnel representing all units of the fleet flocked to the gymnasium of HMCS *Venture* in the Dockyard to complete the two-day, 650-pint target.

The two-day donor session brought to 1,031 the number of pints of blood that personnel of the RCN's Pacific Command had donated to the Red Cross since early December.

Among the donors in the Dockyard clinic was CPO Frank Paulsen, of HMCS *Ottawa*, who gave his 40th pint of blood to the Red Cross.

For Victoria's Royal Jubilee Hospital, the second day's clinic proved particularly timely. At 9 a.m. there was an urgent requirement for two pints of "absolutely fresh" group A, Rh positive blood for an emergency operation. Within two minutes the Red Cross nurses working in the Dockyard had selected two donors from the crowd of

sailors who had assembled to give their blood.

In less than half an hour the two pints were delivered to the hospital.

"We are greatly indebted to the Pacific Command for all this help," remarked Mrs. V. A. Thistle, supervisor of the Red Cross Mobile Blood Clinic for Greater Victoria. "Our stocks were running dangerously low . . . These donations from officers and men of the navy have literally been a life-saver for our entire operation."

Adult Swimming Classes Conducted

An adult learn-to-swim class is underway at the *Stadacona* pool. With instructions every Saturday, the classes are sponsored jointly by the Halifax Recreation Commission and the Canadian Red Cross Water Safety Division.

Classes, which will run for 15 weeks, are open to both men and women.

Course Leader Wins Lott Prize

Lt. F. J. Mifflin has won the Herbert Lott Naval Trust Fund prize of £15 with a mark of 86.6 per cent in the 1962 Third Weapons Officers' Course at *Stadacona*. Eleven officers completed the course.

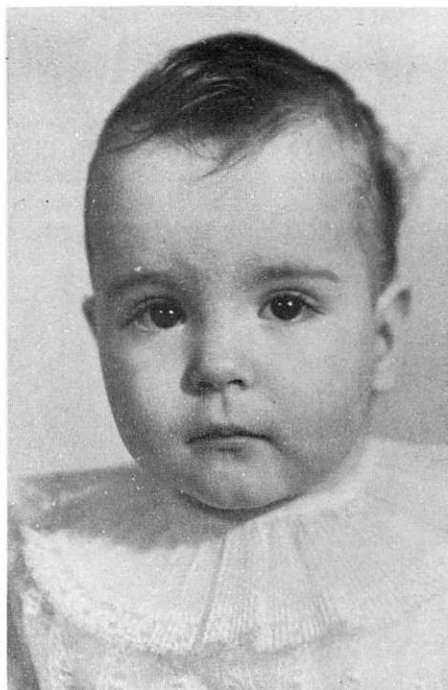
Lt. Mifflin was born in Bonavista, Nfld., and entered the RCN as a cadet at HMCS *Venture* in September 1954.

The Herbert Lott Naval Trust Fund was set up by the late Mr. Herbert Lott, a member of the London, England, Stock Exchange. In 1928 he gave a donation of £20,000 to create the fund and later added £5,000. When he died in 1948 he left the residue of his estate of more than £100,000 to the Fund.

Mr. Lott was extremely interested in the Royal Navy and the part it played in the defence of the Commonwealth. He was convinced the guns of the RN were of prime importance in keeping world peace and hence his desire to establish a prize fund for skill in gunnery and fighting practices generally.

Today the fund is used to make awards to members of the Royal Navy, Royal Marines, Indian Navy and other Commonwealth navies, active or reserve, who show marked efficiency in fighting practices or who contribute signally to the improvement of fighting appliances.

As applied to the RCN, awards of £15 for officers and £10 for senior men, including petty officers, second class, are available to the best qualifiers



MARIE MARGUERITE LAVIGNE

in certain specified courses. These are for officers, weapons officers' course, navigation-direction officers' course, communications officers' course, RCAF pilots' course to wings standard and, formerly, lieutenant (L) star removal course.

For the men, the courses are for Trade Group Four in the following categories: engineering technician, naval airman, aviation technician, naval aircrewman, signalman, radioman, radio-



This is the plaque presented to the Bonaventure by the U.S. Air Forces in Europe in recognition of the part played by the carrier and her aircraft in the search and rescue operations that followed the ditching of a Flying Tiger airliner in the North Atlantic last September. (BN-4907)

man special, electrical technician, air electrical technician, sonarman, weaponmen underwater and surface, fire-controlman, air electrical technician, electronic technician, hull technician, weaponman (air), boatswain, and radar plotter.

Awards may also be made to ships under the terms of the Fund. HMCS *Stettler* was given a £20 award in early 1962 for winning the L. W. Murray trophy and the Pacific Command Sonar Proficiency award in 1961.

RCN Baby Born In Ankara, Turkey

Although *The Crowsnest* has no intention of sponsoring a "Beautiful Baby" contest, there appeared to be good enough reason for printing the accompanying picture of a charming young lady.

She is Marie Marguerite Lavigne, whose mother is the only RCN wife in Turkey and whose father, PO C. E. Lavigne, is on the staff of the naval, military, air attaché at the Canadian embassy in Ankara.

Marie Marguerite's parents believe her to be the only Turkish-born RCN dependent. She was born in Ankara on June 23, 1961. The picture was taken last October.

PO Lavigne, an administrative writer, has been serving in the Near East since March 1960. He has also served in the Far East, in HMCS *Crusader* during the Korean War. A native of Valmarie, in southwestern Saskatchewan, he joined the Navy at Victoria in 1951.

Bermuda Area Exercise Scene

Exercises for ships of the Royal Canadian Navy's Atlantic Command were scheduled for the Bermuda area between late January and mid-March.

Ships in the Bermuda area during the period will vary from one to 23 units plus a submarine. The exercises are called "Maple Spring 63".

In overall command is Commodore R. P. Welland, Senior Canadian Officer Afloat (Atlantic).

The mobile repair ship *Cape Scott* is to be used in Bermuda to provide fleet support. Included in the various exercises will be destroyer escorts, frigates and minesweepers.

Cash Awards Won by Three

The Public Service of Canada Suggestion Award Board has granted cash awards and the Deputy Chief of Naval

Personnel has sent letters of congratulation to the following for ideas which have since been adopted for use by the Royal Canadian Navy:

John Arthur Tuckwell, a civilian storeman at *Hochelaga*, for a shipping tag revision for control of naval material, and

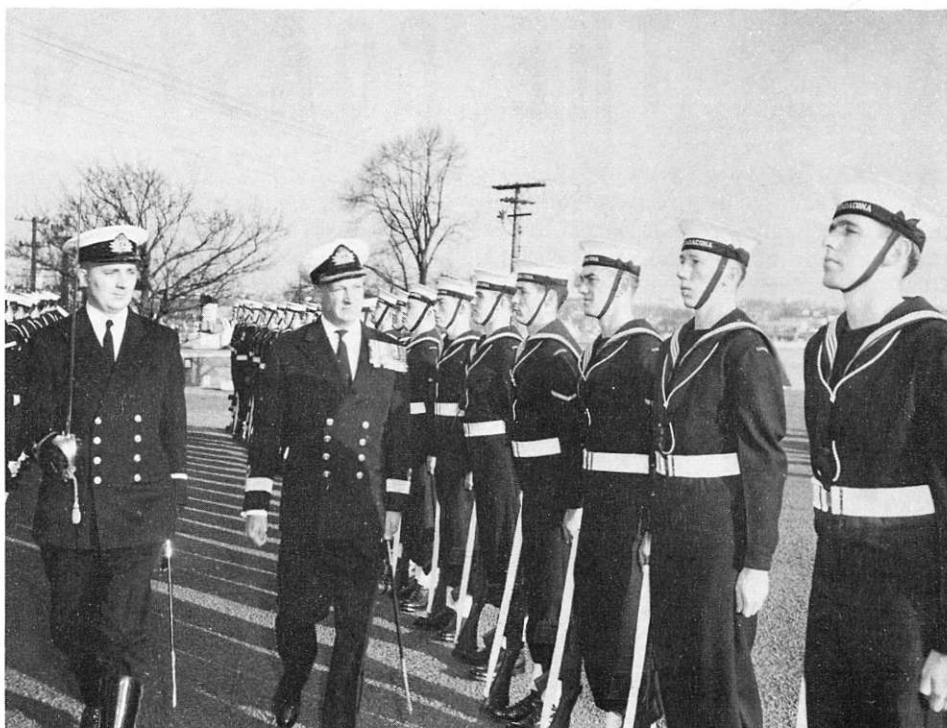
Sub-Lt. R. M. Bernard and PO D. R. Brooks, both of HMCS *Ste. Therese*, for modifications to certain types of sonar sets used in the RCN.

Mother of Four Heads Swim Class

A *Shearwater* housewife and mother of four children topped the class in an intensive Red Cross swimming and water safety course held at HMCS *Shearwater* during Christmas week, L. G. Punchard, director of swimming and water safety for Nova Scotia Red Cross, announced January 3.

She is Mrs. Margaret Pitt, who led the 19 successful aspirants for certification as Red Cross instructors and leaders in the week-long course. Runner-up was PO C. A. Call, also of *Shearwater*. The majority of the candidates who qualified were teenagers who will supervise Nova Scotia beaches and water-fronts next summer.

In addition to Mrs. Pitt and PO Call, they are Guy Brown, *Shearwater*;



Commodore R. P. Welland on October 19 took up his appointment as Senior Canadian Officer Afloat (Atlantic). Here he inspects a guard mounted for his subsequent official call on the Flag Officer Atlantic Coast. Officer of the guard is Sub-Lt. E. Ronald Martin. Commodore Welland previously was at Naval Headquarters as Assistant Chief of the Naval Staff (Air and Warfare).

Gerald MacLeod and Claudine Goudey, Dartmouth; Elizabeth Botterell, Gary Spicer, Carol Schweiser, Lloyd Trerice,

Gordon Macmichael, Margaret Pratt and Terry Gallagher, Halifax; Janet and Carolyn Mont, Spryfield; Edward McManamon and Eileen MacDonald, Amherst; Richard Mader, Guysborough; Sharon Street, Bridgetown and Gary Lochart, Truro.

G. R. Matheson, president, Nova Scotia division, the Canadian Red Cross Society, presented awards at division headquarters in Halifax. He commended the swimmers on the parts they will play in what he described as "one of the Red Cross's most important educational programs".

Mr. Matheson said that 22,000 people had enrolled in Red Cross classes last year and that in Nova Scotia a greater percentage of individuals received instruction than in any other province.

The course was under the supervision of Stephen Cook, Halifax. He was assisted in the final two days of examinations by CPO John Pitt, *Shearwater*; Flight Lt. Leslie Hart, chairman of the provincial Red Cross swimming and water safety committee, Halifax; PO "Tug" Wilson, *Shearwater*, and Ivor Axford, *Shearwater*.

The course encompassed teaching techniques in aquatic subjects covering life saving, artificial respiration, survival training, supervision of beaches and waterfronts.



His Excellency Guy Daufresne de la Chevalerie, Belgian Ambassador to Canada, with offices in Ottawa, visits Rear-Admiral W. M. Landymore, Flag Officer Pacific Coast, on December 10, 1962. Accompanying the Ambassador was Mr. J. Bonne, Belgian Consul, from Vancouver. For a number of years, Belgian officer cadets have been training at HMCS *Venture*. (E-69972)

THE COAST GUARD

A YEAR AGO—on Friday, January 26, 1962, to be precise—the Department of Transport fleet became officially known as the Canadian Coast Guard. The fleet, which now numbers more than 240 vessels of all types, includes nearly 50 ships of larger size, 28 of them measuring more than 1,000 tons gross.

The Canadian Coast Guard has a long history of notable service to Canada's maritime economy, dating back to Confederation, when it first was formed as a unified marine service from previous existing government marine establishments.

Until the establishment of the Royal Canadian Navy in 1910, it was partially an armed service. After that time, it became an entirely civilian organization engaged in the task of keeping Canada's waterways safely marked and free of navigational hazards, and carrying out, when necessary, icebreaking services and search-and-rescue functions.

About five years ago the fleet began a tremendous expansion, when the development of summer marine operations in the Canadian Arctic suddenly mushroomed. There also arose a new and growing demand by commercial

shipping for winter icebreaking services in the Gulf of St. Lawrence and East Coast waters. The Department of Transport's Marine Services underwent an extensive re-organization to keep abreast of the vastly increased responsibilities it was facing.

Among these, and expanding rapidly in scope because of the phenomenal increase in pleasure boating all across Canada, was the matter of marine search and rescue.

For a time, the old name "Canadian Marine Service" was officially applied to the fleet. Then, in recognition of both the expansion in size and scope of its operations, and the increasingly high standards achieved, it was decided to adopt the new name.

In keeping with the change was the decision to use a new colour scheme and distinctive insignia on the ships. They are now to have red hulls, rather than black as formerly. Superstructure and funnels are to be white, instead of the white, yellow and black combination of former years. A stylized red maple leaf and band on the funnels make the ships instantly recognizable at a distance.

With the new colour scheme, the ships will be more easily seen from other vessels they may be escorting and can be more readily spotted by their own helicopter pilots returning from reconnaissance flights under conditions of poor visibility. The new quality of easy identification will also be helpful when the Coast Guard ships are engaged, with other vessels, in search-and-rescue undertakings at sea.

Officers and men of the Canadian Coast Guard wear a new style of distinctive uniform, modelled on war-time battle dress and designed to be smart, comfortable and practical for the conditions of the service.

Despite the change in dress of both ships and men, the Coast Guard's duties continue to be strictly of a civilian nature and the vessels are entirely unarmed.

All through its history, it has supplied and maintained floating and shore-based aids to navigation for the Department of Transport in Canada's east and west coast waters; on the St. Lawrence River and Great Lakes; in Hudson Bay and the Arctic; along the vast Mackenzie River system and on other inland waters. The size of this task in all these areas has grown steadily with the continuing increase in commercial shipping activities.

Icebreaking has been an important factor in the operations of the service since its earliest years. In the beginning, such work was undertaken principally to assist shipping in eastern port areas and along the St. Lawrence for as long a period as the weather would allow. Icebreaking was also found the only effective means of easing flood conditions caused by ice jams at Montreal.

In subsequent years, there arose a demand for icebreaker assistance to ships in Hudson Bay and Arctic waters in summer, and for help in extending the shipping season in the Gulf of St. Lawrence to greater length.

Emphasis was placed on construction of icebreakers and the Canadian Coast Guard now has 10 fully-strengthened icebreakers and seven lighter supply-and-buoy vessels capable of limited icebreaking. These 17 ships comprise the second largest icebreaker fleet in the world. The strength of this force will be added to with the completion in 1966 of a new 24,000 horsepower



CCGS Montmorency, lighthouse supply and buoy vessel, is shown laying buoys in the St. Lawrence, an annual task. (Department of Transport Photo)



Keeping traffic moving on the St. Lawrence during the winter months is a recent undertaking of the Canadian Coast Guard. In this picture, taken on February 20, 1962, the CCG Ships D'Iberville and Alexander Mackenzie and the MV Baie Comeau steam in line ahead in the Gulf of St. Lawrence. (Department of Transport Photo)

triple-screw icebreaker, larger and more powerful than the fleet's present "largest", CCGS *John A. Macdonald*. Two new buoy-and-supply vessels, strengthened for navigation in ice, are also under construction. One will work in the Department of Transport's Sorel Agency, the other in the Prescott Agency, on the St. Lawrence River.

Since 1954, the Department of Transport has accepted increasing responsibility for the resupply of numerous Arctic installations, both civilian and military, in widely scattered parts of both the Eastern and Western Arctic. This was one of the primary causes of the growth of the icebreaker fleet. In the beginning, much of the resupply work was carried out by United States agencies, but the department's undertakings were expanded year by year

until by 1961 its operations included the whole Canadian Arctic.

In the Eastern Arctic the supply work is carried out by means of convoys of chartered merchant ships escorted by icebreakers. The icebreaker captains act as commodores of the convoys and are assisted by northern supply vessels. These are shallow-draft ships, converted from wartime tank landing craft and capable of working in the shallow water areas that are found at many ports of call in the Far North, and into which the larger icebreakers cannot safely venture.

Of vital importance to these operations are the ice reconnaissance flights provided by fixed wing aircraft under the direction of the Transport Department's Meteorological Branch. These flights range out of such points as

Churchill, Manitoba, and Frobisher Bay and Resolute Bay in the Arctic and provide information on conditions in the sea lanes of the entire eastern Arctic in which the convoys operate.

Close range reconnaissance flights are flown by helicopters carried aboard the icebreakers, carrying ice observers supplied by the Meteorological Branch. The helicopters, providing a means of finding leads through ice in the immediate vicinity of ships, have meant a tremendous saving in time for the convoys. They also are used for ship-to-shore transfer of personnel and light freight.

Ship-to-shore handling of cargo is carried out by a fleet of landing craft and other barges that are maintained in the north and operated by the Coast Guard. Trucking and stevedoring

services at the larger Arctic points are carried out by civilian contractors.

In the Western Arctic, a Coast Guard icebreaker works with supply convoys operating from Tuktoyaktuk at the mouth of the Mackenzie River to points as far east as Spence Bay and Shepherd Bay, at the southwest end of Boothia Peninsula.

An idea of the degree to which the northern supply operations of the Canadian Coast Guard have increased can be gained from the tonnage of Arctic-bound cargo handled in recent years. In 1954 the figure was around 8,000 tons. By 1961 it was in the vicinity of 110,000 tons and last year's tonnage was around the same figure.

During the winter months, Canadian Coast Guard icebreakers support the ever increasing shipping operations in the Gulf of St. Lawrence. Their movements are directed from an operations room in Sydney, N.S., where an ice operations officer, himself a qualified master mariner, maintains contact with commercial shipping and provides routing instructions and directs icebreaker assistance as required.

The ice information is provided by the Meteorological Branch, as in the case of Arctic operations. Where possible, the merchant ships are made up into convoys for passage under icebreaker escort through difficult ice areas.

In addition to these services, certain public service undertakings, such as maintenance of year-round navigation or extension of the normal navigation season in and out of numerous harbours in the Gulf and Atlantic areas, are carried out as a part of the same winter operations.

The winter of 1961-62 saw more Gulf winter shipping than in the previous

year, which was the first in which there was any attempt by commercial shipping to use the Gulf throughout the cold months. Last winter, cargoes moved regularly from ports along the North Shore such as Port Cartier, Seven Islands and Baie Comeau, as well as from the paper producing ports of Dalhousie, N.B. and Corner Brook, Newfoundland.

The Canadian Coast Guard answered more than 300 calls from ships seeking icebreaker assistance and nearly 400 calls for routing through the ice were given attention.

More than 3,000,000 tons of cargo moved through the Gulf during the season; the figure was nearly double the amount recorded in the previous winter.

The traffic was of special importance to the North Shore ports, for, in former years, their industrial life as iron ore shipping ports came to a standstill with the arrival of winter.

In the Arctic, and to an increasing degree in the Gulf of St. Lawrence and other "home" waters, advantage is taken by hydrographers, oceanographers and other scientists attached to other government departments of the chance to extend their knowledge of those waters that can only be navigated by icebreakers.

Ships of the Coast Guard have penetrated far into the high latitudes on scientific missions in the fields of meteorology, oceanography and hydrography. Naval personnel recall with pride the exploits of one of these vessels, the former HMCS *Labrador*, the first warship and first large ship of any kind to complete the Northwest Passage and circumnavigate North America.

On the Great Lakes, the *Port Dauphine*, on loan from the Royal Canadian Navy, is operated on behalf of a group of research organizations working in the fields of meteorology and limnology, the "oceanography" of lakes.

In the realm of search and rescue work, on which increasing emphasis is being placed, the Canadian Coast Guard provides the marine element in the national air-sea rescue organization in support of the overall responsibility of the Royal Canadian Air Force.

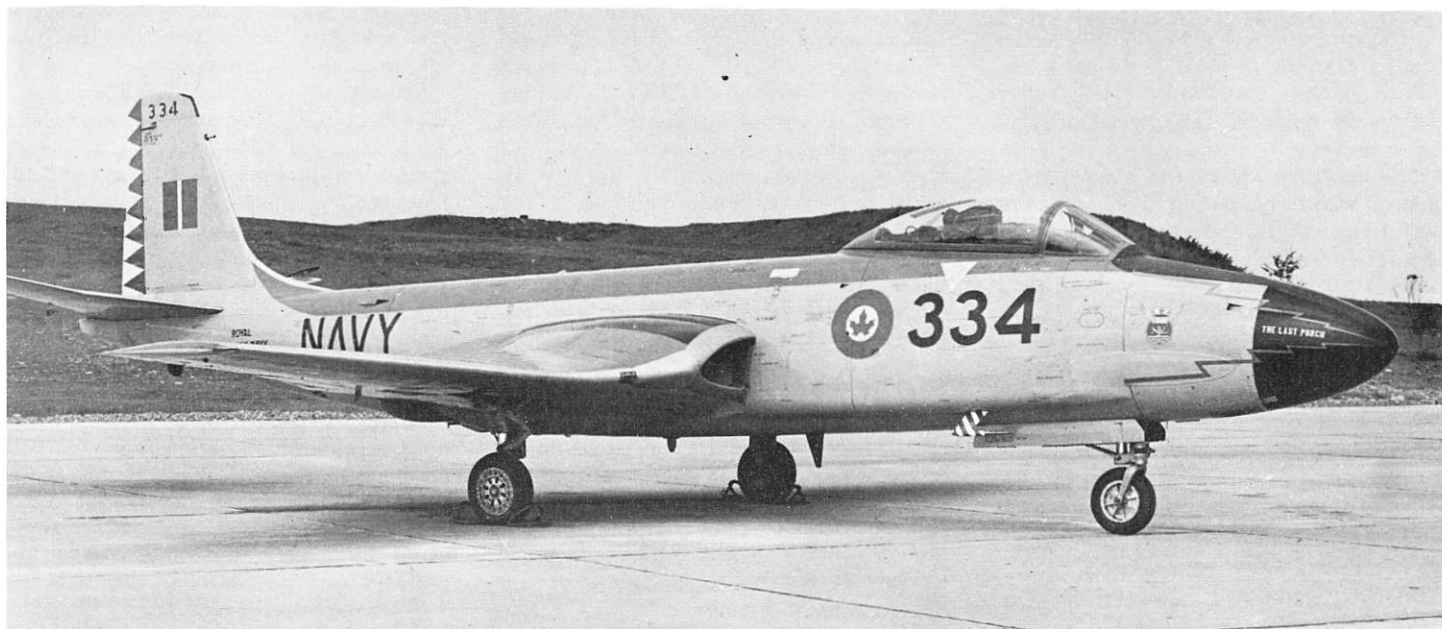
The search-and-rescue undertakings will require a new degree of efficiency with the completion of five new 95-foot cutters for which contracts recently were let, and the construction of three 65-foot cutters for which contracts are about to be awarded.

Two of the large cutters will be in service on the Atlantic Coast, two on the Pacific and the fifth in the Great Lakes during Summer and the East Coast in Winter. The three smaller vessels will be used for Great Lakes patrol duty.

Two new weather ships are to be built for the Coast Guard to serve Weather Station "Papa", in mid-Pacific, which has been maintained by the department's ships for a number of years with former Royal Canadian Navy frigates now coming to the end of their useful lives.

Also under construction or in the planning stages, apart from ships already mentioned, are an icebreaking cable repair ship, a new depot ship for housing personnel engaged in Coast Guard summer Arctic operations, another shallow draught buoy vessel for the Mackenzie River and other smaller craft.





"The Last Punch" was the name given to the Banshee stripped of its fighting gear at Shearwater in preparation for the flight to Calgary, where it has been acquired by the Southern Alberta Institute of Technology for its instructional and historical value. The Banshees of 870 Squadron were withdrawn from service last September. (DNS-29527)

THE LAST PUNCH

During 1962 the operation of fighter aircraft by the Royal Canadian Navy was discontinued. The last few months of operation of Fighter Squadron 870 were somewhat frustrating and painful for the squadron personnel, knowing that the aircraft they were flying with enthusiasm and maintaining with meticulous care would shortly pass out of service. During this difficult period a request was received from the Provincial Institute of Technology and Art, Calgary, Alberta, for a Banshee aircraft for the instruction of students in the construction and maintenance of jet

aircraft. The preparation of this aircraft for its transfer to the Provincial Institute of Technology and flight to Calgary provided one of the last official tasks carried out by VF 870. The enthusiasm and energy with which this task was tackled are well illustrated in an article written by Lt. G. D. Bennett, the Squadron Air Engineer Officer. A somewhat condensed version of Lt. Bennett's article follows. It speaks highly of the calibre of the officers and men in VF 870 and the spirit with which their work was accomplished.—S.G.S.C.

WHEN THE OFFICERS and men of VF 870 heard that they were to prepare a Banshee aircraft for transfer to the Institute of Technology and Art, Calgary, Alberta, the news was interpreted as a welcome opportunity. It would be one of the last jobs they would do together as an organized squadron. It would give them an opportunity to see the performance of the aircraft with all the cumbersome military equipment removed and, perhaps the most important of all, it would perpetuate for a few more years one model of the famous old bird they all knew so well.

The aircraft selected was Serial Number 126334, picked for appearance and general condition. The initial task was to remove the military and non-

By Lt. G. D. Bennett

essential equipment and adjust the final weight distribution so that the centre of gravity would not be moved from its initial designed position. Some 80 items of equipment were removed and the weights and centre-of-gravity arms carefully recorded. Items removed included the armament, fire control radar, arresting gear, tip-tank installation and finally some of the more valuable instruments, including the auto pilot, radio altimeter and stall-warning equipment.

When all equipment had been removed and the necessary load added for CG compensation, it was calculated that the aircraft would be lighter by

some 1,293 pounds and the total weight would be 13,053 pounds. The aircraft was then accurately weighted by the Fairey Aviation weighing team and the actual weight was found to be 13,051 pounds. The CG location was proved to be correct and all personnel were justly proud of the squadron's weight calculations.

The removal of equipment was completed ahead of schedule and it was decided to combine the normal flight testing of the aircraft with a trial program to evaluate performance in the "light" condition. In order to achieve significant results the aims of the flight test program were defined by the squadron pilots as follows:

To exceed Mach 0.9 in a dive;

To exceed 535 knots straight and level at 500 feet altitude;
To achieve an altitude in excess of 50,000 feet, and
To climb 40,000 feet in less than 12 minutes.

The achievement of the above parameters would prove that the essential performance of the aircraft had not deteriorated with age or RCN utilization. Granted, the aircraft was a stripped and especially lightened model but the parameters set were reasonably high.

As the time for flight trials approached, Banshee 126334 became the object of much speculation and controversy. Someone coined the phrase "Last Punch", which stuck as a name for this somewhat unusual aircraft.

Preparation for the special flight trials consisted of three major tasks; the fairing of areas of potential drag, improve-

ment of wing surfaces and accurate calibration of the engines. Just forward of the engine intakes are the 20mm gun ports which normally cause considerable turbulence to air passing along the fuselage to the engine. The ports were neatly covered over and faired. All small projections and openings in the fuselage were either faired or covered, where feasible. A great deal had previously been accomplished by the removal of tip tanks, missile pylons and bomb and rocket launchers.

To smooth the wings, the rough walkways over the engine housings were removed and the exposed areas painted with high gloss finish. The edges of all access panels were filed down and the paint edges carefully smoothed. This work is important for speed because a lip of paint near the leading edge of the wing, no higher than 2/1,000 of an

inch, can set off an early separation of the boundary layer with resultant increase in profile drag.

The Westinghouse J34WE34 engine was originally designed to produce a static thrust of 3,250 pounds at sea level, giving the Banshee a net thrust of 6,500 pounds. The limiting factor is exhaust temperature and the standard RCN engines are calibrated for a 100°F day. It was not possible to calibrate to lower temperatures without special permission from higher authority, but it was feasible to calibrate very exactly to existing limits.

After 32 patient and careful man-hours, maximum allowable exhaust temperatures were reached at 12,500 RPM and the air fitters knew that maximum thrust had been achieved. Nothing could be done about improvement of the quality or quantity of fuel for test



More than half a ton of fighting and other gear was removed from Banshee 334 to prepare it for its flight to the Southern Alberta Institute of Technology at Calgary. The picture shows the equipment removed and some of the ballast weights that were installed to assure normal flying. (DNS-29528)

performance without an expenditure of public funds.

A final inspection of the flying controls, compass swing, cleaning and waxing of all surfaces, and "The Last Punch" was ready to fly. A high-speed taxi test followed, with the pilot reporting that he had obtained 120 knots in 18 seconds using only 1,800 feet of runway.

The aircraft was first flown in its special configuration, on August 27, 1962, by Lt. F. C. Willis, the squadron senior test pilot. A subsequent flight was carried out by Lt. K. S. Nicolson, the squadron commanding officer. A number of other squadron pilots were given the opportunity of flying it during the limited period of testing and evaluation.

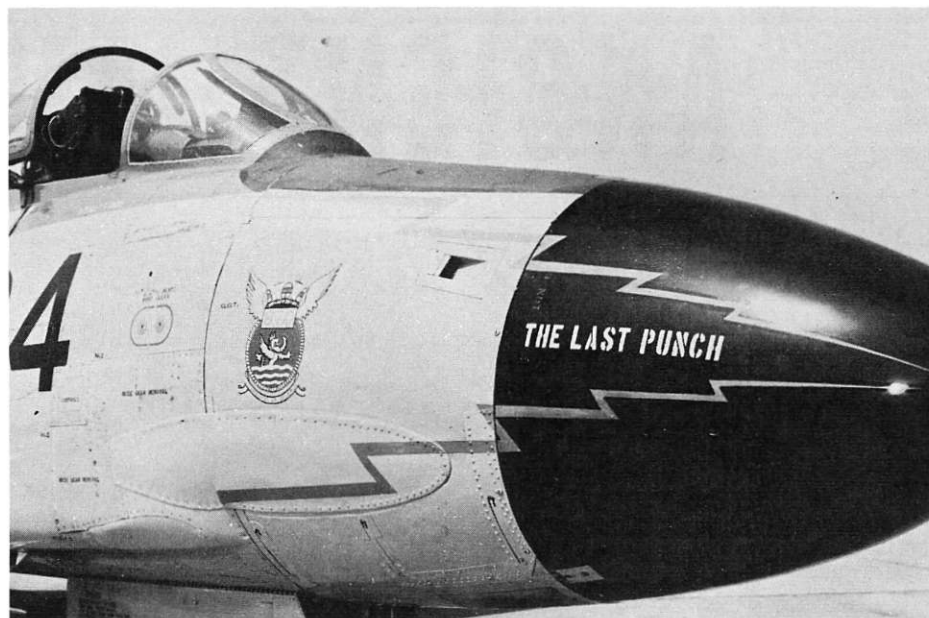
Performance during the brief test program more than exceeded the expectations. All of the four original parameters were exceeded, with the figures below achieved:

Mach 0.95 maximum speed;

Speed 540 knots, straight and level at 500 feet;

Ceiling 51,450 feet achieved, and Climb to 40,000 feet, 10 minutes and 45 seconds.

Official records of Banshee performance were not available in VF 870 but it is believed that some had reached Mach 0.97 and a ceiling of 53,000 in the original test program of the aircraft when it was new. There was no knowledge within the squadron, however, of a climb to 40,000 feet in under 11 minutes and this might just possibly be a record. As the most significant results



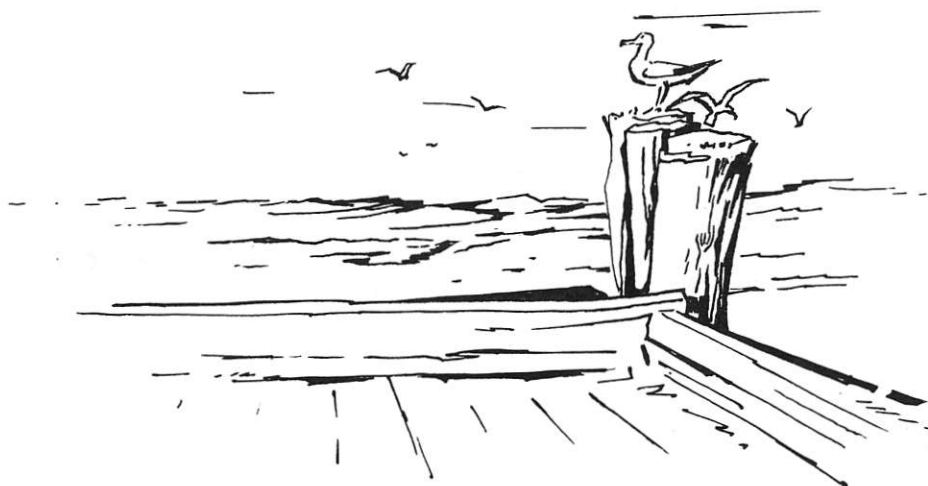
were in the area of climb, the figures achieved will be included below:

Altitude (Feet)	Time from Brakes Off (Minutes)	Rate of Climb (Feet per Minute)
5,000	1.0	5,000
10,000	2.0	5,000
15,000	3.0	5,000
20,000	4.25	4,720
25,000	5.25	4,770
30,000	6.58	4,660
35,000	8.5	4,120
40,000	10.75	3,720

While the results were not outstanding, considering the performance of modern-day fighter aircraft, it will be remembered that the original production of the F2H series, from which the

F2H3 version was developed, dates back to 1947. So squadron personnel considered that their old aircraft had done quite well. It had carried some of the VF 870 pilots faster and higher than they had ever been before. More important than this, it had provided a project on which interest and enthusiasm could be expended during the closing days of the squadron's existence.

When "The Last Punch" flew to Calgary it carried with it the best wishes of all past and present Banshee pilots and maintenance personnel. The aircraft itself should prove to be a fitting reminder of the manner in which the Navy's fighter aircraft were maintained and operated.



ANCIENT ANCHOR

DOES THE WRECK of a 19th century sailing ship lie in the sand and muck just outside Esquimalt Harbour?

Speculation has followed the discovery of a huge barnacle-encrusted anchor about 150 yards off the large sandpit directly in front of the Canadian Services College, *Royal Roads*.

With the anchor was found 90 feet of heavy cable, heavy timbers and chunks of copper sheathing.

Believed to be more than a century old, the anchor is 11 feet long with a nine-foot wooden stock. Research indicates that manufacture of that particular type was discontinued in the 1850s.

The relic was found in 30 feet of water at a medium tide.

Finders of the anchor were Lt.-Cdr. Charles P. Ilsley, Staff Adjutant at *Royal Roads*; Lt.-Cdr. William D. Walker, of *Naden*, and army Lt. Larry L. Creig, physical training officer at the college. All fully qualified clearance divers, they were engaged in an off-duty diving exercise when they came across the historic relic.

The anchor was found partially embedded in sand and covered with barnacles, seaweed and other marine life.

Using short-handled shovels and a heavy bar, the divers were able to uncover most of the anchor. To it was attached a 90-foot length of cable, each link of which measured about a foot in length and eight inches in width. Lt.-



Thought to be more than a century old, this barnacle-coated anchor was found in the *Royal Roads* area. Three service clearance divers found the relic about 150 yards offshore and also uncovered 90 feet of heavy cable and chunks of heavy timber. Speculation is that the area was the scene of a shipwreck. (E-69965)

Cdr. Ilsley said the anchor and the chain were both in well preserved condition.

Regarding the "find" as a challenge to their clearance diving training, the three officers obtained permission to recover the anchor in their own way.

Across two 27-foot whalers they placed a series of heavy timbers—making in effect a raft measuring about 14 feet across. On this they secured a winch, with block and tackle equipment. The whole arrangement was then towed by a 14-foot boat powered with a ten-horse-power engine to the anchor location off *Royal Roads*.

The three divers, assisted above water by Army Captain Dean Wellsman, a staff member at the college, dug away sand and rocks to enable the winch to lift and free the relic from the bottom. The 90 feet of chain was also freed from the sand.

Then the whaler-raft, with the anchor dangling about eight feet underwater, and the chain still attached, was towed to the Seaward Defence Jetty on the Colwood side of Esquimalt Harbour,

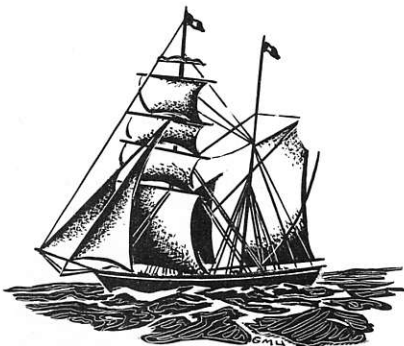
where a crane was used to lift the anchor and its chain onto the jetty.

Soon after it was decided to return the relic to the water—to prevent quick corrosion due to contact with air. The anchor was suspended just below the surface and in the meantime inquiries are underway to determine how best to preserve the wooden stock of the relic.

Col. John Symons, curator at the Maritime Museum of British Columbia, reports the anchor might well be between 150 and 175 years old.

"It's getting more interesting by the minute," reported Lt.-Cdr. Ilsley. "Buried in the sand out there, there are probably the remains of some ancient ship, but it will require a dredge or some special equipment to recover it. We certainly couldn't do the job with hand shovels."

It is planned to mount and display the anchor, once it has been cleaned and preserved, in a conspicuous spot near the main gateway leading to *Royal Roads*.



AFLOAT AND ASHORE

ATLANTIC COMMAND

HMCS *Sioux*

Anyone care to drag?

After waiting a whole year for some other ship to better the mark, the ship's company of the *Sioux* are claiming theirs is the fastest destroyer escort in the Navy. Despite increased tonnage and her Second World War vintage, the *Sioux* cranked up a speed of 33½ knots during full power trials in December 1961.

October 1 last saw the *Sioux's* captain, Cdr. C. A. Law, take over from Captain G. C. Edwards as Commander Third Escort Squadron.

During the same month, 50 men from the *Sioux* took advantage of the one-week survival course at *Shearwater*.

The *Sioux* and the *Columbia* proceeded to sea at the end of October for work-ups under Captain Sea Training, Captain A. L. Collier. A thorough program of action stations, damage control, gun shoots, seamanship evolutions and operations department exercises was carried out.

During the first half of November, the *Sioux* and *Huron* were on patrol in the North Atlantic.

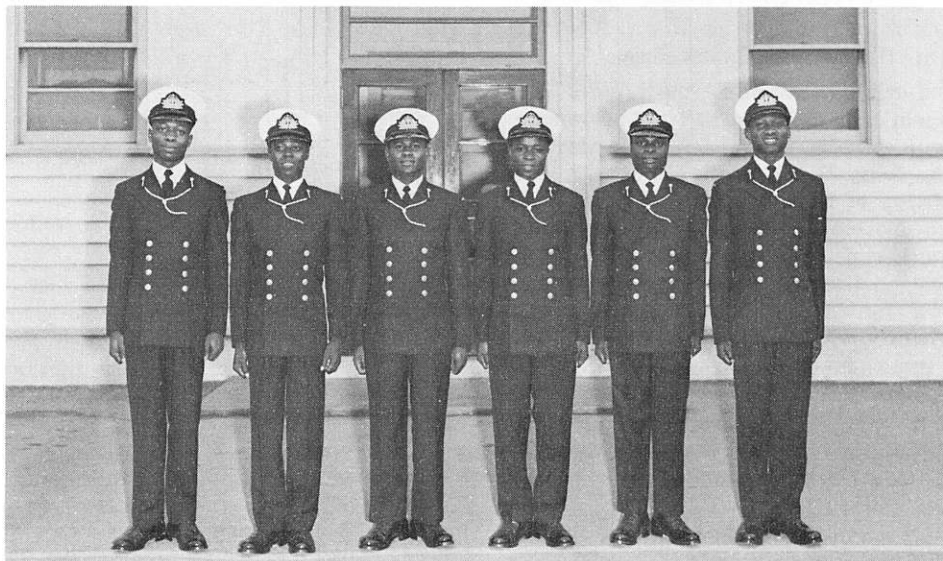
On the night of November 10, a ship's concert provided a cheerful and welcome break in the routine. The featured artists were Chief Petty Officers Roy Hatlen, Alexander Watson and Gordon Carr, and PO Walter Murphy.

880 Squadron

While in Holland on board the *Bonaventure* last fall, the Halifax-based 880 Squadron prepared a food package for mailing to their adopted boy and girl in Athens, only to learn there was no Dutch branch of Foster Parents Plan, the agency through whom the squadron had adopted the little girl, Artemis Papandreou, 8, and the boy, Michael Rapanakis, 14.

"A friend put us in touch with Red Cross in The Hague and they, in turn, referred us to Rotterdam," PO David Mason, electrical technician with the squadron, said. "The latter promised to arrange delivery of the parcel."

Back in Halifax, the squadron received confirmation of "mission accom-



Six cadets of the Royal Nigerian Navy are in training at HMCS *Venture*, having entered at the beginning of the fall term. On the occasion of the second anniversary of the independence of Nigeria, in October, they were presented with a birthday cake, bearing two candles, by Captain D. G. Padmore, commanding officer of the training establishment. (E-69242; E-68875)

plished" from H. M. Van Keulen, director of the Dutch Red Cross. He wrote that the package had been shipped on the Royal Dutch Steamship Company's Motorship *Nestor*, at no cost to the "Bonnie" group, and would be discharged at Piraeus, the port of Athens. Mr. Van Keulen also expressed pleasure at being able to render service in the tradition of Red Cross and said he greatly admired the squadron for its interest in the Greek youngsters.

Prepared by the *Bonaventure's* cook, the parcel contained some 70 pounds of commodities, including potato flakes, milk powder, rice, small white beans, beef base soup mix, raisins, figs, white sugar, canned tuna and sardines.

PO Mason said it was natural for him to turn to the Red Cross. His mother, Mrs. Carl Mason, chairman of the blood donor committee, North Sydney branch, is a long-time supporter of the society. PO Mason himself, at 16,

was the youngest Red Cross water safety instructor in Nova Scotia when he qualified some years ago. He has kept up his interest in water safety, and while on the latest exercises completed a course in artificial respiration.

PACIFIC COMMAND

HMCS *James Bay*

During November the *James Bay* again had the good fortune of working with Mindiv 93, her old friends from the Long Beach area. Mindiv 93, consisting of five ships put into Esquimalt on November 1 and, after an active week-end, sailed in company with the Second Canadian Minesweeping Squadron for the annual exercise in the vicinity of Prince Rupert.

Throughout the passage Canadian officers were present in the American ships. Many preparations had taken place before the trip regarding the navigational aspects of the inside passage of the West Coast, including viewing stereoscopic air photographs of some of the more spectacular or difficult spots, and also the routine viewing of harbours in which the ships would anchor for the night.

On passage, the 'sweepers stayed in two units because of the limiting size of the harbours. Northbound calls were



Naval Radio Station Masset, in the Queen Charlotte Islands, has adopted a nine-year-old Greek boy, Stematis Apostolopoulos, from the village of Pyrgos in southern Greece, under the Foster Parents Plan. A Christmas parcel was forwarded to Stematis by the station. (CN-6531)



New chief and petty officer's accommodation at Stadacona will be completed early in 1963. This is a view from Barrington Street. The building replaces one destroyed by fire on February 7, 1959. (HS-69622)

made at Nanoose, Beaver Cove, Bella Bella, Butedale and Prince Rupert and southbound at Butedale, Namu, Beaver Cove, Westview and Vancouver.

At Prince Rupert, the visiting ships' companies were treated royally by HMCS *Chatham*, the naval division. Both the USN and RCN entered marching contingents in the Remembrance Day parade.

All ships returned to Esquimalt without incident.

922 Squadron

"The West Coast Indian" was the theme of the year-end party held by VC 922, the reserve air squadron, of Malahat, Victoria naval division.

Wilson Duff, curator of anthropology for the British Columbia Provincial Museum, showed slides of his recent visit to the village of Kitwankool, deep in the totem pole land of the Upper Skeena River. His coloured slides and narration were excellent and informative.

Following the lecture, West Coast seafoods, including salmon, shrimp, crabs, oysters and clams were served. In addition to Mr. and Mrs. Duff, the guests of honour were: Lt.-Cdr. S. E. Soward, commanding officer of VU 33, and Lt. G. E. Pumple, VC 922's former resident instructor, now serving on board HMCS *New Glasgow*.

SEA CADETS

RCSCC *Revenge*

Double honours have come the way of RCSCC *Revenge*, of Penticton, British Columbia.

The Penticton corps has been awarded the Navy League of Canada trophy for the best average attendance in Canada for a sea cadet corps of 100 or less and the *Powell River News* trophy as the most efficient corps in B.C.

This was the second time in the history of the Navy League attendance trophy that it had been awarded to a B.C. corps and its award represented the climax of a particularly successful year for the corps.

The presentation of the Navy League of Canada trophy was made by G. E. Draters, president of the Penticton branch of the league, and it was received on behalf of the corps by Lt. D. W. Coleman, RCSC, commanding officer.

Cape Breton Area

Thirty Sea Cadets from seven corps in the Cape Breton area were guests of the Royal Canadian Navy late in November at a special Sea Cadet Day at Point Edward Naval Base, near Sydney.

The guests, representing more than 500 cadets from corps in Sydney, North Sydney, Reserve Mines, Glace Bay, New

An Appraisal of the New Helicopter

SOME of the questions RCN personnel may be asking about the new HSS-2 helicopter, which will join the fleet in 1964, are answered in a press despatch from Hawaii in a recent issue of *Navy Times*, published in Washington, D.C.

The helicopter (its current designation in the RCN is CHSS-2) will operate from modified *St. Laurent* class destroyer escorts, two of which, the *Assiniboine* and the *St. Laurent*, have begun their transformation. It will also operate from two new destroyer escorts, the *Annapolis* and *Nipigon*, the aircraft carrier *Bonaventure* and *Shearwater* naval air station.

The *Navy Times* story follows:

PEARL HARBOR—In an era of earth-circling spacemen and 30-mile-a-minute planes, many people find it difficult to become enthused over a 200-mile-an-hour helicopter.

However, Pacific Fleet Navy men definitely are excited about the new SH-3A (HSS-2) "Sea King" jet helicopter. They believe this new turbo-

copter has opened a new chapter in the Navy's book of anti-submarine warfare.

Its use is important because of the known presence of Communist submarine activity in the Pacific. To counter this potential threat, new and improved methods of anti-submarine warfare are constantly being developed.

Built by Sikorsky Aircraft Co. of Stratford, Conn., the turbocopter is powered by twin General Electric gas turbines capable of developing 1,250 horsepower apiece. These compact engines are short enough to fit within a man's armspan and light enough to be lifted by two men.

The entire 'copter measures 54 feet in length and stands more than 16 feet high. Gross weight is slightly more than 17,000 pounds. Externally, the "Sea King" differs very little from conventional helos already in the Fleet.

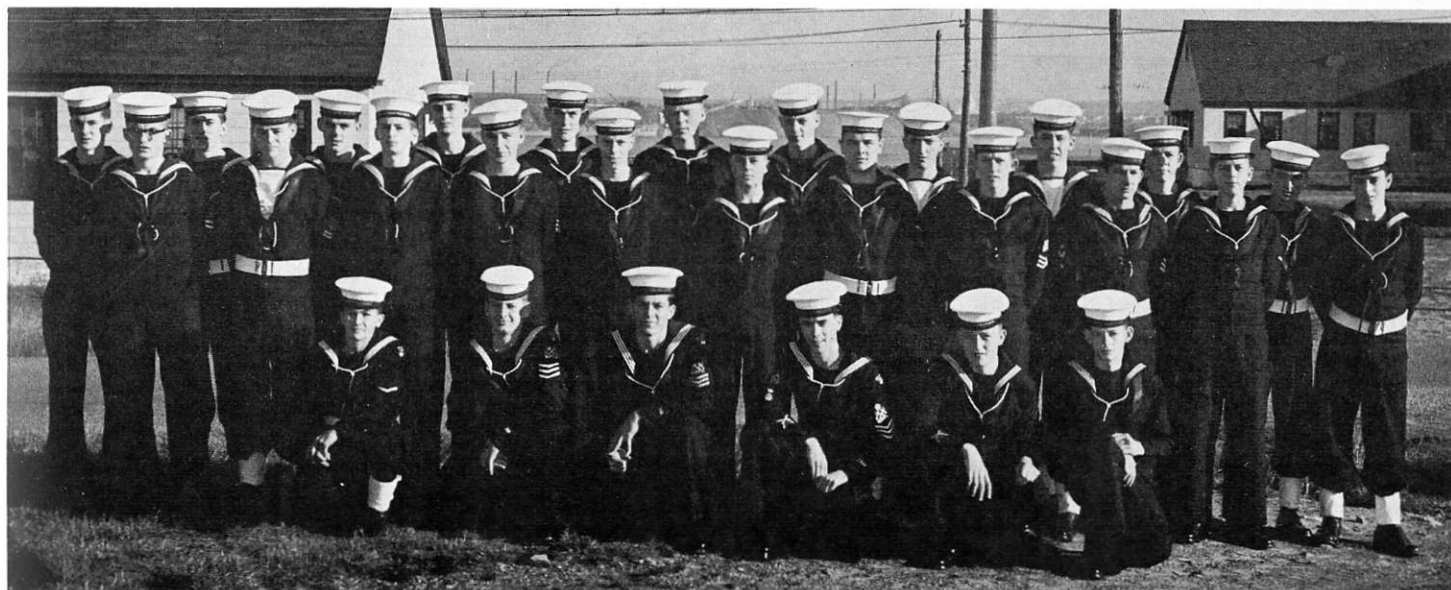
This helicopter began operating with the Seventh Fleet last summer. It already has demonstrated its ability to perform on gruelling four-hour patrols.

Packing sonar gear, weapons and a crew of four, "Sea King" was especially designed to meet the rigid requirements of an ASW helicopter. As the first helo to combine both hunter and killer capabilities, it can detect, identify, track and destroy aggressor submarines. It can accomplish this day or night, under all weather conditions.

Acting independently, it operates from a carrier and remains at extremely low altitudes, searching for an initial contact with a sonar transducer dipped beneath the ocean's surface.

The copter can climb at the rate of 900 feet a minute and has a hovering ceiling of more than 8,000 feet.

This record-setting turbocopter earlier this year became the first helicopter to exceed 200-miles-an-hour in an officially sanctioned speed trial. Flying over a 19 kilometer (11.81 miles) course in Connecticut, the "Sea King" attained a speed of 210.65 miles an hour. This eclipsed the Russian record of 199.4 miles an hour.



Twenty-eight of the 30 sea cadets from the Cape Breton Area who were guests of the Staff of the Point Edward Naval Base, across the harbour from Sydney, N.S., are shown before they took over as "junior executives". The cadets represented the seven corps in the Cape Breton area. (HS-70734)

Waterford, Westmount and Louisbourg, took over the base as "junior executives" from naval officers and civilian heads of departments.

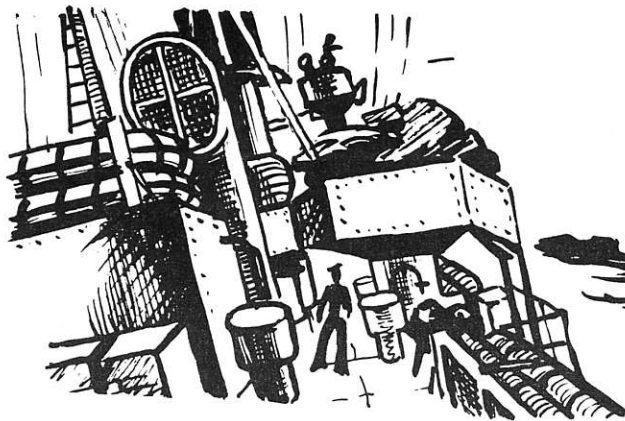
The cadets arrived early in the afternoon and, after being welcomed by Cdr. E. T. Jefferys, base superintendent, "took over" the establishment. Later, they were given a tour of the base.

In the evening, the cadets were joined by their parents, corps commanding officers and Navy League officials as guests of officers and men of the base, following which motion pictures were shown the visitors.

Cdr. Jefferys said that the purpose of Sea Cadet Day was to acquaint the cadets with the operations of Point

Edward, provide a reward to selected cadets, and give parents an opportunity to participate to some degree in their sons' cadet activity.

The sea cadet movement in Cape Breton has been growing rapidly during the past year and Navy League officials in the area credit increased RCN support for much of its success.



Home from the Sea



NOA Extends Aid to Students

Scholarships and bursaries to a total value of \$1,200 have been awarded by the Naval Officers' Association of British Columbia, Vancouver, to six UNTD cadets and two acting sub-lieutenants, RCNR it was announced in December.

The scholarships, valued at \$150 each, were awarded to UNTD Cadets Phillip Stanley Wilcox and David A. S. Vroom. A bursary worth \$200 was granted to acting Sub-Lt. Nigel Whitely, \$150 bursaries were awarded to Acting Sub-Lt. F. A. Sheppard and UNTD Cadets Herbert D. Morris and B. J. Wallace, and \$125 bursaries to UNTD Cadets

Gordon W. Mains and Edward B. J. Winslow.

Tom Marshal, chairman of the scholarship award committee, said 12 applications were received for the grants and that all applicants were of scholarship calibre. Other members of the committee are Charles Willis and Charles Flemming.

Registration for Reunion Begun

Advance registration forms are already available for the annual naval veterans' reunion, which will be held this year in Sarnia, Ontario, on May 18, 19 and 20.

The forms may be obtained from J. Eakins, Sarnia Naval Veterans' Association, 146½ North Christina Street, Sarnia. The cost of registration is \$2 single and \$3 a couple.

Because of another convention in Sarnia on the same dates as the reunion, many of the naval veterans will be housed in Port Huron, Michigan, across the St. Clair River from Sarnia. Delegates should, accordingly, bring with them birth or baptismal certificates or, if born abroad, citizenship certificates to meet the requirements of the U.S. Immigration Service.

The cities of Sarnia and Port Huron are joining with the Sarnia Naval Veterans' Association in extending to all naval veterans an invitation to this, the ninth annual naval reunion.

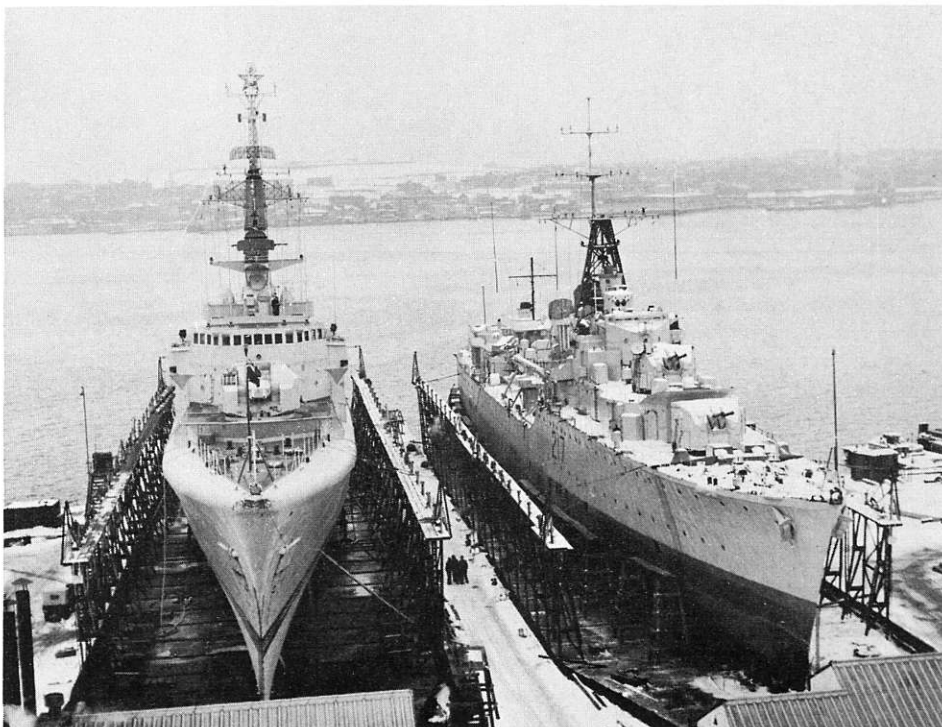
The reunion committee of the SNVA is sparing no effort to assure that the reunion will be one of the most interesting and enjoyable yet held.—H.D.K.

Third Clasp to CD For Admiral Budge

Rear-Admiral P. D. Budge, formerly Chief of Naval Personnel, now on retirement leave, has been awarded the third clasp to his Canadian Forces Decoration, representing 42 years' service, and becomes the second member of the RCN ever to receive this award. The first was Lt.-Cdr. C. H. R. Davis, RCN (Ret).

Thousands of CDs have been earned since the inception of the medal in 1950, and hundreds of first clasps have been pinned to them as recipients became eligible. However, when it comes to the second clasp, only 55 have been awarded, and of these only 15 holders are still serving.

All recipients of second clasps have been officers, since there are no instances since the CD came into being of men having served the required 32 years.



The new and old of Canada's warships are seen side by side in the Dartmouth slips. HMCS Mackenzie (left), the RCN's latest addition, was docked for periodic check-up during her work-up period, while the Iroquois, Canada's oldest Tribal class destroyer escort, was being prepared for mothballing. The Mackenzie was commissioned in October 1962, the month in which the Iroquois was paid off and placed in operational reserve. The Iroquois was towed to Sydney N.S. in early January. (HS-70855)

THE ALMONTE GUNNERS

By Hal Kirkland

(The author of the following narrative is the retired postmaster in Almonte, about 30 miles west of Ottawa.)

A SHOW that is surely unique was put on in Almonte, Ontario, last fall. No tickets were sold; no advance notice appeared in the local paper. Only a handful of people saw it although others may have heard strange echoes rolling along the streets of the Ottawa Valley village.

A gun crew of five boys, aged 10 to 12, under the watchful eyes of Lt.-Cdr. L. J. C. Walker and Cdr. D. C. Fairney, fired salvos from an 18th century cannon.

The cannon is the real thing, probably 200 years old. It belongs to Cdr. Walker who brought the gun from England. "It was found in Kent, England", he said. "Originally it was a two-pounder swivel gun and it weighs about 100 pounds. The charge is four ounces of large grain cannon powder and it is fired by a priming charge of rifle powder. The range of the ball would be perhaps a half-mile, the slugs a much shorter distance."

As a swivel gun, it was of a type mounted in ships of the British Fleet during the period 1750 to 1825. Cdr. Walker now has it mounted on a naval type 18th century four-wheel gun carriage, which makes it easier and simpler for the present crew to operate. At the ceremony the youthful crew prudently fired only the powder charge.

At four o'clock in the afternoon the neighbors in the Piety Hill section of Almonte gathered on the spacious lawn in front of Cdr. Walker's house on Union Street to watch the ceremony. Cdr. Fairney lives next door in another old home.

The ceremony was not only unique, it was authentic. The gun's crew were in early 19th Century naval dress, as the seamen in Lord Nelson's Victory were dressed in 1805 at Trafalgar.

We who were seated or standing on the Walkers' lawn saw these eager, intent boys acting out a bit of naval history from the Napoleonic Wars. The very gun they were firing could have seen service off Cape St. Vincent, or in the Battle of the Nile, or before the Napoleonic Wars, in a ship chasing pirate vessels.



The Captain, Gregg Mills, wore the round straw hat with the slightly up-turned brim that we see in pictures of that period. The other members of the crew, Hugh Fairney, Ross Langtry, Tom Fairney and Martin Taylor, had bandanas tied around their heads and they looked like pirates. They wore sloppy pants held up by a sash or belt, and a short—that's all. That is how a gun crew looked in Nelson's day, and probably it was the same dress in the time of Drake and Hawkins.

Cdr. Walker saw to it that his boys were well drilled in the exercise. Each boy knew exactly what he had to do and the crew worked with precision and speed. There was no fooling. The drill was that specified for a naval 24, and was taught from an old naval drill book in Lt.-Cdr. Walker's library titled *Great Gun Exercisè*.

Captain Gregg Mills barks his orders and his 10- and 11-year-old crew jump to their appointed stations to swab, load, ram the charge or whatever his

job might be. We'll let Lt.-Cdr. Walker explain the drill:

"The crew members close up to their gun and clear it away for action", he tells us. "No. 1 on the crew is the Captain of the Gun; No. 2, a loader; No. 3, a loader and sponger; No. 4, a loader, and No. 5, the powder man (powder monkey). The Captain of the Gun is in charge: he has the priming flask, linstock (long pole with match) to fire the gun, and the vent rimer. Others provide the rammer to force home the charge, sponge to clean out the bore after each shot to quench any lingering fire, gun powder charges, wads and a bucket of water.

"At the order to load, the ammunition number provides a four-ounce charge to the loaders at the muzzle, which is inserted and forced home with the rammer. The Captain of the Gun

'stops the vent' with his thumb and a plug, to prevent any rush of air through the gun when the charge goes down: otherwise a half-dead spark might come to life. Wads are then forced down, the last one wet for greater compression. The Gun Captain then orders 'Prime' and forces his rimer into the vent breaking the skin of the charge. He then primes the vent with fine rifle powder, grabs a linstock and reports 'Gun Ready'.

"At the order 'Fire', the burning linstock is entered into the vent,—the priming flashes firing the charge. At the order 'Sponge out', after the gun is fired, the sponge number wets his sponge and thoroughly scours out the bore, quenching any remaining fire before reloading."

We didn't time the operation but I asked Lt.-Cdr. Walker how fast they

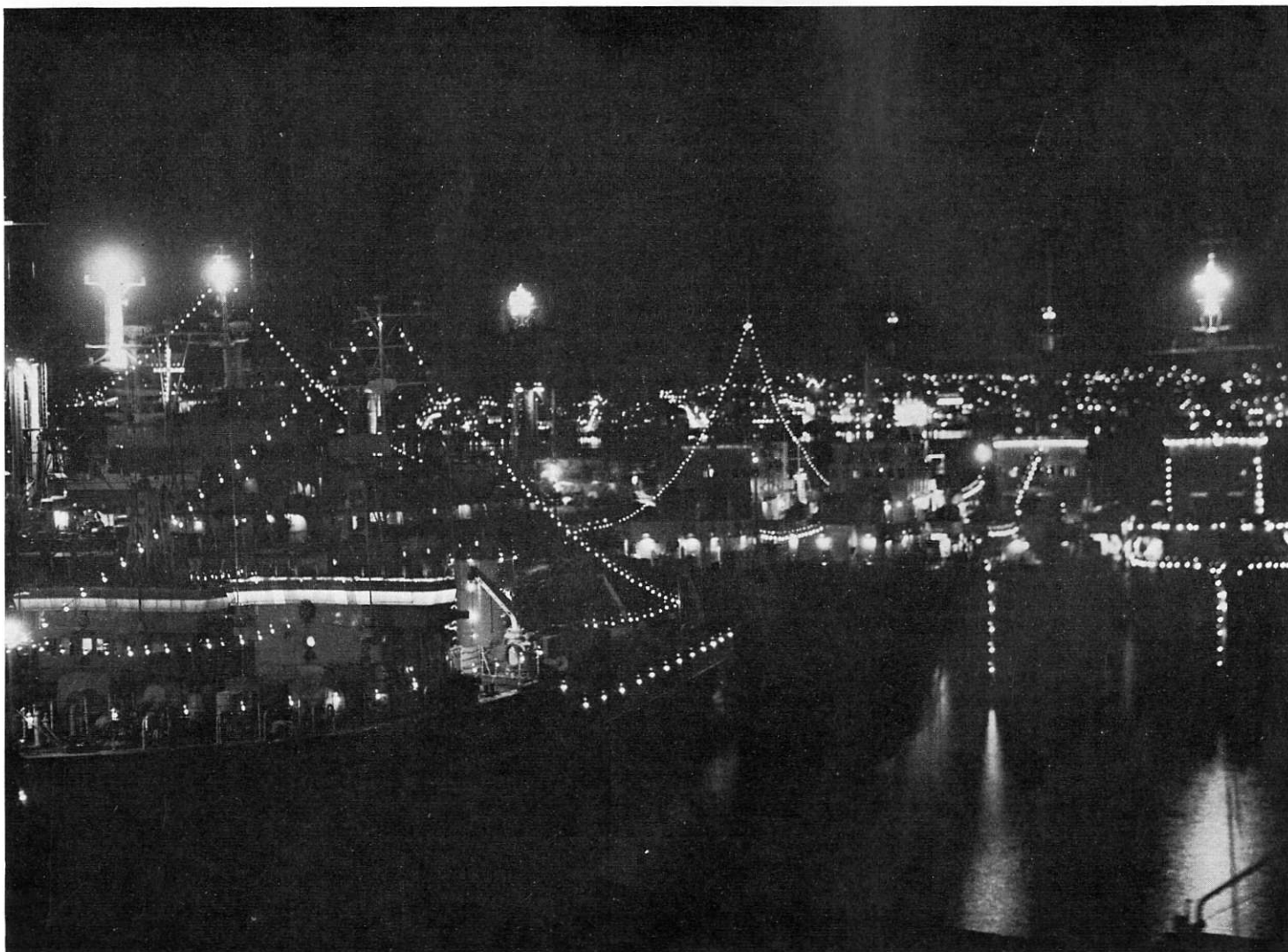
could fire this gun in battle. He said: "Probably two salvos a minute." The boys weren't quite that fast, but almost.

One can speculate whether this little ceremony will make their history lessons come more alive for these five fortunate lads.

The salvos are fired and Lt.-Cdr. Walker dismisses his crew. They race to the patio for their ration of "grog". They quickly finish the pitchers of ice cold lemonade provided by Mrs. Walker and Mrs. Fairney and go back to their ball game. The spectators linger and wander around the lovely Walker and Fairney lawns.

A good show!

NOTE: Since the foregoing was written, Lt.-Cdr. Walker has been appointed to the staff of SACLAN, in Norfolk, Virginia.—Ed.



An annual spectacle setting the Halifax waterfront ablaze with Yuletide splendor was staged as warships of the Atlantic Command displayed Christmas illuminations. Here is a view of escorts and minesweepers at one of the naval dockyard's jetties. The destroyer escort HMCS Restigouche, for the second year running, won the coveted plaque awarded every festive season by the Halifax Junior Chamber of Commerce. (HS-70750)

THE VERSATILITY OF SEA POWER

"Sea power gives to the nation an instrument with capabilities running the entire gamut of military requirements. These capabilities include the ability to engage in an all-out nuclear war, conventional war, cold war, limited war, sub-limited war, cold war, or in a mere showing of the flag . . ."

. . . Rear-Admiral John S. McCain, Jr., USN, in the January 1961 issue of the *U.S. Naval Institute Proceedings*.

A BUNDANT evidence that the naval planners of the world are aware of the versatility of naval forces and their resultant adaptability to change in the world situation is displayed in the new edition of *Jane's Fighting Ships* for 1962-1963, the standard naval reference work that has attained its 65th year of issue.

Only a few of the world's navies have the capability of engaging in all of the various types of warfare listed by Rear-Admiral McCain in an article entitled "Amphibious Warfare During the next Decade", from which the quotation at the head of this column is taken. Only a few countries can afford a naval service that can function successfully in the face of any type of international emergency. Only a few are wealthy enough to build fully modern ships with highly sophisticated weapons.

The alternative is to specialize in one branch of naval warfare, as Canada has done with her essentially anti-submarine fleet, or to be satisfied with something less than the best, as a great many other countries are doing.

The costliest ship ever built is the nuclear-powered attack aircraft carrier *USS Enterprise*, for which the construction bill was \$444 million—an amount equal to about one and a half times the annual cost of the Royal Canadian Navy, operations, construction, administration and all. The USN has in service a half-dozen conventionally powered attack carriers built at an average cost of about \$200 million each. *Polaris* submarines, at about \$100 million each, are relatively cheap.

It is obvious that few countries have the resources to build warships in these price ranges. Although Russia is reported (according to *Jane's*) to have 30 guided missile submarines, only 10 of these are of the expensive nuclear-powered kind and the missiles are believed to be few in number and limited to a range of about 350 miles.

BOOKS for the SAILOR

Ninety-three countries now possess navies. In some cases these amount to only a few patrol craft. The world total of naval vessels is some 12,600 and personnel adds up to some 2,500,000 officers and men.

Diligent digging through the mass of information in *Jane's* might enable one to grade the navies of the world in order of fighting power. Some assistance in this direction is provided in the table of numerical strength at the end of the volume. Something needs to be known, however, concerning the quality of ships and weapons and the efficiency and training of the personnel who man them. Thus, it is quite improbable that the navy of the People's Republic of China (48,000 officers and men, and 850 ships, including 24 submarines) is in a class with Italy's navy of 41,000 personnel and 298 ships, including six submarines. The difference has nothing to do with race, religion or politics; it has a great deal to do with industrial capacity, experience and the nature of the task.

Numerically, the world's most powerful naval force, that of the United States (666,000 officers and men and 2,300 odd ships) is out-numbered by Russia's 750,000 officers and men and 3,800 ships, but the former navy includes units of a striking power unmatched in the Russian fleet and the USN has a command-

NAVAL HISTORIES GO UP IN PRICE

Following the recommendations of the Royal Commission on Government Organization (the Glassco commission) that the price of government publication be brought in line with costs of production, increases have been made in the prices of official RCN histories.

The Naval Service of Canada, by Dr. Gilbert Tucker, now sells for \$6.50 for two volumes, and the operational history of the Second World War, *The Far Distant Ships* by Joseph Schull, is also priced at \$6.50. The increase in each case is \$1.50.

ing lead in aircraft carriers and nuclear submarines.

The three-quarters of a million persons in Russia's navy also include those serving in river flotillas, coastal artillery, marines and the land-based naval air force, which includes 85,000 officers and men. Serving in ships are 275,000 sailors, a figure that restores the perspective, considering that the previously quoted USN figure does not include 178,000 marines.

The puzzling question remains: Why does the Soviet navy, despite its substantial air arm, not have aircraft carriers? The answer may lie in the land-and-ice-locked nature of Russia's enormous coastline. Whatever the reason, the Red navy continues to place its emphasis on the submarine as its principal weapon.

Russia's predominance in this area is illustrated by the fact that 29 nations now possess some 867 submarines and Russia has 465 of the total, outnumbering the USN by nearly 2½ to 1 and the Royal Navy by 10 to 1.

Aircraft carriers are expensive, but they are also so useful that it is surprising to find that only nine navies possess them and that of the total of 76, the USN owns 58.

The current figures do not bear out gloomy predictions that the aircraft carrier will rapidly go the way of the battleship and the dinosaur. But certain other trends are indicated. Of the seven aircraft carriers in the Royal Navy, two are commando carriers, designed to move troops speedily to trouble spots and land them by helicopter. Also proceeding apace is the marriage of the helicopter to the escort vessel, which, in a sense, represents the introduction of miniature aircraft carriers to the world's navies, including the RCN, and should spell trouble for the fast submarine.

Some of the functions of the aircraft carrier are being assumed by new classes of ships, the guided missile cruisers, frigates and destroyers, possessing both anti-aircraft and bombardment capabilities. Is it possible the advent of these ships in numbers will lessen reliance on the aircraft carrier as a strike weapon and hasten its transformation to helicopter and VTOL aircraft equipped carriers for anti-submarine or command duties?

In the foreword to the new *Jane's*, the editor, Raymond V. B. Blackman, suggests that the aircraft carrier may well change radically in appearance and, if one large school of naval thought prevails, may be replaced by the missile-armed nuclear submarine as the capital ship of the future.

There is not space here to discuss in detail Mr. Blackman's knowledgeable assessment of naval progress and trends but a reference to a development in one of the world's newest and smallest navies may be of interest. This is the pending acquisition by the Ghanaian navy of two corvettes of completely new design. These trim little vessels are of 590 tons full load, 177 feet (over all) in length, with a beam of 28½ feet and 10-foot draught. Their armament includes a 4-inch HA/LA gun, a 40mm anti-aircraft gun, and triple-barrelled squid mounting. Air conditioning and roll-damping fins are other features.

Says Mr. Blackman: "They could be the pattern for a new type which, like the torpedo boat destroyers of former days, of which they are broadly reminiscent, might grow into bigger ships but cheaper than present frigates, and there may well be need for similar ves-

sels in the Royal Navy and other navies, as a large number could be built for comparatively small outlay."

The index of named ships has been moved to the back of the volume and the recent practice of including a tabulation of the classes and numbers of ships in the principal navies has been continued. For the first time, ships of the Canadian Coast Guard are listed, substantially increasing Canada's representation in the book.

It is a characteristic of *Jane's Fighting Ships* that, although it may strive for perfection, it never assumes that it has been attained and each year brings a volume in which the information is more complete, more accessible and more enlightening than ever before.—C.

JANE'S FIGHTING SHIPS, 1962-1963, compiled and edited by Raymond V. B. Blackman; supplied in Canada by the McGraw-Hill Company of Canada Ltd., 253 Spadina Road, Toronto 4.

STYLE BOOK

The person with an idea to sell will never make his sale unless his hearers know what he is talking about. The scientist and the technician, enmeshed in the specialized language and jargon of their professions, may find their proposals fail to win the approval of their superiors simply because of a failure in communication.

Help is at hand. *A Style Manual for Technical Writers and Editors* has been prepared by S. J. Reisman, manager of research technical publications for the Lockheed Milles and Space Company, of Sunnyvale, California.

"Good technical writing is necessary if a publication is to be useful. Companies expect their scientists and engineers to report the results of their investigations clearly and concisely," says Mr. Reisman. He cites the writings of scientists Faraday, Milliken and Bragg as examples of clarity, conciseness and good organization whose "language never interferes with the ideas."

Among the subjects dealt with are the organization and publication of technical manuals, the preparation of tables, graphs and illustrations, and the presentation of mathematical material.

One section deals with sentence structure and demonstrates ways in which woolliness, ambiguity and verbosity may be avoided, and clarity attained.—C.

A STYLE MANUAL FOR TECHNICAL WRITERS AND EDITORS, edited by S. J. Reisman; published in Canada by Brett-MacMillan Ltd., Galt, Ontario.

Water Down The Drain

Stories have been told in these pages in the past of sailors on board ships that have just crossed the equator rushing below to see if the swirl of water going down wash basin drains had reversed direction.

Most people are aware that the Coriolis effect, arising from the earth's rotation, causes revolving storms in the northern hemisphere to spin in a counter-clockwise direction and storms in the southern hemisphere to revolve clockwise. By analogy, it has been assumed that water going down the drain in the northern hemisphere would produce an anti-clockwise vortex and vice versa in the south.

It isn't necessarily so but it's not absolutely untrue.

A series of careful experiments by A. H. Schapiro, of the Massachusetts Institute of Technology, has established that the vortex produced by water draining from a container really does assume a counter-clockwise direction in northern latitudes, but this can be guaranteed only if certain precautions are taken. Otherwise the spin may be in either direction or may even reverse itself.

The water in the container must be allowed to stand for as long as 24 hours to make sure all currents caused by pouring die out; the room must be kept at a constant temperature; the container must be covered to protect the water from air currents, and the drain must be unplugged in such a way that the water in the container is not disturbed. Mr. Schapiro achieved this last requirement by having a long hose, closed with a plug, attached to the drain. A float above the drain hole indicated by its motion when a vortex had begun to form. This was sometimes as long as 15 minutes after draining began.

Even if an experiment as delicate as this could be performed on board a ship drifting across the equator on a perfectly calm day, it wouldn't be worth the trouble.

There is no Coriolis effect at the equator.

Accounts of Mr. Schapiro's experiments have appeared in *Nature*, the British scientific weekly, and *Science*, weekly magazine of the American Association for the Advancement of Science.

Ocean Sounding Deepest Made

HMS Cook (Cdr. F. W. Hunt, MBE, RN), a survey ship employed on oceanographic surveys in the Pacific, has discovered a new depth in the world's oceans, over seven miles down.

Her captain reported to the Admiralty recently that the ship had recorded a new sounding of 6,297 fathoms—over seven miles deep—by echo sounding machine in the Mindanao Trench, close to the eastward of the Philippine Islands. Her sounding survey has revealed the existence of a narrow trough some 15 miles long in a north-south direction and one and a half to four miles wide, having a depth exceeding 6,000 fathoms.

The new sounding is 263 fathoms deeper than any previously recorded depth. The latest estimate of the height of Mount Everest, the world's highest peak, is 29,082 feet, which is 8,700 feet less than the 37,782 feet represented by the new sounding.

The Cook's discovery again shifts the location of the greatest known ocean depth from the Marianas Trench where, in the Challenger Deep, the U.S. bathyscaphe *Trieste* descended to the sea bed in 5,967 fathoms in 1960 and where, in 1959, the Russian research ship *Vitiaz* reported a depth by echo sounding machine of 6,034 fathoms—until now the previously recorded deepest part of the world's oceans. In the Mindanao Trench the previously recorded depth was 5,740 fathoms obtained by the U.S. Ship *Cape Johnson*.—Admiralty News Summary.

THE NAVY PLAYS

Sailing Group Names Officers

The Royal Canadian Navy Sailing Association has selected a new slate of officers for its central committee and made three appointments.

Appointed were: Commodore J. M. Doull, chairman; Lt.-Cdr. E. G. Fisher, member, and Cdr. S. W. Howell, RCN (Ret), secretary-treasurer. Elected were: Rear-Admiral E. W. Finch-Noyes, RCN (Ret), commodore; CPO C. F. Church, vice-commodore; Captain G. H. Hayes, rear-commodore; Cdr. B. S. C. Oland, RCNR, rear-commodore; Superintendent K. W. M. Hall, RCMP, Cdr. P. G. Chance, Lt.-Cdr. J. D. Agnew and Lt. Ferguson Finlay, members.

Central committee officers hold office for two years.

Leading Seaman Wins Jones Shield

Ldg. Sea. Ronald James Parker, 32-year-old radioman at Albro Lake Naval Radio Station, has been awarded the Admiral Jones Shield for his outstanding contribution to navy sport at *Stadacona*.

The award is made annually to the man who contributes most in conduct, sportsmanship and character to sports in HMCS *Stadacona* during the year.

Ldg. Sea. Parker, whose father Harry, (a noted swimmer) is a retired chief petty officer living in Hamilton, Ontario, by unusual ability and perseverance overcame a serious medical obstacle in his childhood that should have stopped him from playing any sport at all.

He was stricken with rheumatic fever while in grade three at Longbranch Public School near Toronto. He lost two years of schooling due to hospitalization and, when discharged, was warned to wear boots instead of shoes, to keep away from sports and to avoid leading too active a life.

He determinedly disregarded the warning. He had skated when in grade three and played one game of hockey. He resumed skating and hockey at the age of 19.

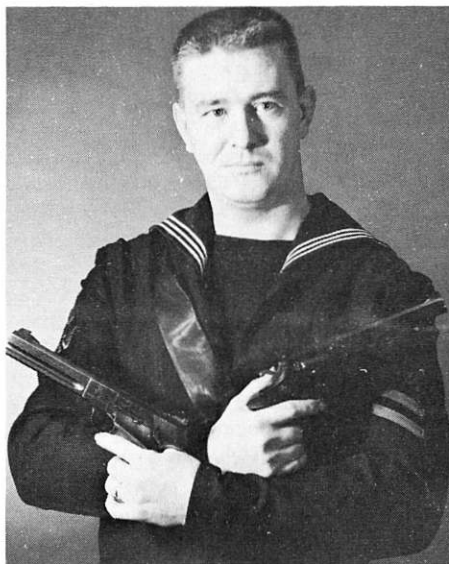
The Navy has recognized his grit by noting his two years on the *Cornwallis Cougars* hockey team, a further year with the *Stadacona Sailors* and a berth



Ldg. Sea. R. J. PARKER

with the *Shearwater Flyers* when the RCN Air Station pucksters were Armed Forces Hockey League champions in the area. In addition, for the past three years he has played with the Albro Lake station team and also, in 1961, served on the local tri-service team. In football, Ldg. Sea. Parker was a member of the *Shearwater Flyers* when they were Dominion intermediate champs in 1957, and a member and later captain of the *Stadacona Sailors* football club.

His reports note that his athletic endeavour "in no way affects his professional efficiency" as a watchkeeping



PO Kenneth R. Krafft, of Albro Lake naval radio station recently qualified for the Silver Expert shield, one of the most difficult tests in handgun shooting, by obtaining a score of 5,356 points out of a possible 6,000 in 20 sets of three targets. (HS-70950)

radioman at Albro station. In the meantime he has built his own house at Cole Harbour, N.S.

The award was presented during ceremonial divisions in *Stadacona* January 11.

Ldg. Sea. Parker in his youth was an Army Cadet in Longbranch and then commuted to Toronto during four and a half years in the Canadian Army Militia. However, a naval career had always beckoned and he entered the RCN in September 1954 at Hamilton.

Naval Ski Club Formed in Ottawa

A Royal Canadian Navy Ski Club open to all naval personnel in the area has been formed in Ottawa, perhaps with the idea of proving that the sailor is just as much at home in his watery element when it is frozen.

The club was organized as a sports activity of HMCS *Bytown* and a variety of events for the remainder of the season is intended to whet the appetite of the ski fans in navy blue.

Membership of the club in mid-January stood at about 60 and more than 40 of these turned out for the first ski school on Camp Fortune's slopes.

The organization meeting was held in the *Bytown* wardroom on December 5, Commodore A. B. Fraser-Harris was elected president, Cdr. P. S. Booth was made vice-president, Lt.-Cdr. R. P. Mylrea, secretary, Lt.-Cdr. J. H. Cocks, treasurer, Lt.-Cdr. C. J. O'Connell, beginner's representative, and Captain V. J. Wilgress, competition and liaison representative.

Fees were set at \$1 for individual memberships, or \$2 for family memberships. Maximum attention is to be paid to those for whom facilities do not already exist and, to implement this, classes are to be provided for members, wives, and children over 16, at a cost of \$1.50 a lesson, with free use of tows while under instruction.

A number of club members have qualified as instructors under the auspices of the Camp Fortune Ski School. They are Commodore Fraser-Harris, Captain Wilgress, Lt.-Cdr. K. M. Meikle and Lt.-Cdr. Cocks.

The club is holding classes on weekends and intends to have night skiing during the week at special rates.

RETIREMENTS

LDG. SEA. RICHARD ROGER BALL, LSWS3, of Port Burwell, Ontario; served in RCNVR Sept. 14, 1940-Oct. 18, 1945; joined RCN Dec. 16, 1947; served in London naval division, *Stadacona*, *Raccoon*, *Cornwallis*, *Hochelaga II*, *St. Francis*, *HMS Caldwell*, *Peregrine*, *Cape Breton*, *Naden*, *Prevost*, *Scotian*, *Athabaskan*, *Portage*, *Iroquois*, *Crescent*, *Quebec*, *Caribou*, *Assiniboine*, *Nootka*, *Micmac*; awarded CD; retired January 16, 1963.

CPO ADDISON WALTER BURKE, C1RP4, of Lockport, N.S.; joined January 27, 1941; served in *Naden*, *Stadacona*, *St. Croix*, *Beaver*, *Avalon*, *Iroquois*, *New Liskeard*, *Huron*, *Scotian*, *Haida*, *Magnificent*, *Niobe*, *HMS Dryad*, *Micmac*, *St. Laurent*, *Ottawa*, *HMS Victory*; awarded CD; retired January 31, 1963.

PO RAY GLENSTEN ELDRIDGE, P1BN4, of Macklin, Sask.; joined January 27, 1941; served in *Naden*, *Stadacona*, *Restigouche*, *Ville de Quebec*, *Niobe*, *Peregrine*, *Givenchy*, *Ontario*, *La Hullose*, *Patriot*; awarded CD; retired January 26, 1963.

PO JEAN PAUL FORGET, P1WU2, of Verdun, P.Q.; served in RCNVR July 4, 1941-Oct. 19, 1945; joined RCN March 18, 1946; served in *Cartier* naval division; *Stadacona*, *Weyburn*, *HMS Nabob*, *Peregrine*, *Givenchy*,

Leaside, *Naden*, *Donnacona*, *Warrior*, *Niobe*, *RNAS Eastleigh*, *Athabaskan*, *New Liskeard*, *Haida*, *Portage*, *Crescent*, *Algonquin*, *Cornwallis*, *D'Iberville*, *Saguenay*, *Sioux*, *Port St. Jean*; awarded CD; retired January 2, 1963.

CPO HAROLD PATTERSON HAYES, C1ER4, of Lowen Millstream, N.B.; joined RCNVR April 20, 1942; transferred to RCN Jan. 28, 1946; served in *Brunswick*, *Cornwallis*, *Matapedia*, *Stadacona*, *Peregrine*, *Kentville*, *Toronto*, *Huron*, *Haida*, *Iroquois*, *Swansea*, *CANAS Dartmouth*, *Magnificent*, *Montcalm*, *Gaspé*, *Donnacona*, *Restigouche*; awarded CD; retired January 29, 1963.

CPO LLOYD GEORGE LAWSON, C1ER4, of South River, Ont.; joined July 12, 1937; served in *Stadacona*, *Saguenay*, *St. Francis*, *Fort William*, *York*, *Micmac*, *Scotian*, *Haida*, *Crescent*, *Donnacona*, *St. Laurent*, *Cape Breton*, *Cape Scott*, *Bytown*; awarded RCN Long Service and Good Conduct Medal; retired January 11, 1963.

CPO THOMAS STUART MacINTYRE, C1SG4, of Douglastown, N.B.; joined July 12, 1937; served in *Stadacona*, *HMS Victory*, *HMS Despatch*, *HMS Durban*, *Saguenay*, *Ottawa*, *Hepatica*, *HMS Dominion*, *Skeena*, *St. Hyacinthe*, *Niagara*, *St. Francis*, *Kings*, *Somers Isles*, *Iroquois*, *Naden*, *Bytown*, *Chippawa*,

RCN College, *Cayuga*, *Athabaskan*, *Ontario*, *Cornwallis*, *Venture*; awarded RCN Long Service and Good Conduct Medal; retired January 10, 1963.

CPO RAY LESLIE MITCHELL, C2ER4, of Killarney, Man.; served from July 31, 1939 to Aug. 1, 1946; re-entered January 10, 1949; served in *Naden*, *Stadacona*, *Ottawa*, *Prince Henry*, *Givenchy*, *Burrard*, *Peregrine*, *Miramichi*, *Woodstock*, *Chippawa*, *Rockcliffe*, *Athabaskan*, *Cayuga*, *Sioux*, *St. Therese*, *Skeena*, *Assiniboine*; awarded RCN Long Service and Good Conduct Medal; retired January 7, 1963.

CPO HOWARD BURTON MYERS, C1HT4, of Head of Jeddore, N.S.; joined RCNVR January 8, 1941; transferred to RCN Oct. 26, 1944; served in *Stadacona*, *Kings*, *Avalon*, *Peregrine*, *Scotian*, *Iroquois*, *Warrior*, *Niobe*, *Magnificent*, *Bytown*, *Saguenay*, *Bonaventure*; awarded CD; retired January 7, 1963.

CPO GEORGE HAROLD PILKINGTON, C1ET4, of St. Catharines, Ont.; joined RCNVR Oct. 31, 1941; transferred to RCN May 1, 1942; served in *Star*, *Nonsuch*, *Stadacona*, *Cornwallis*, *Givenchy*, *Naden*, *Wolf*, *Chatham*, *Kelowna*, *Middlesex*, *Niobe*, *Warrior*, *Bytown*, *Portage*, *Algonquin*, *Montcalm*, *Swansea*; awarded CD; retired January 18, 1963.

THE ATLANTIC COMMAND'S HEART

NAVAL PERSONNEL in the Atlantic Command of the Royal Canadian Navy and their civilian co-workers gave more than \$90,000 to charity in 1962.

The largest portion of the total, \$33,947, went to the Halifax-Dartmouth United Appeal campaign and at that was 10 per cent higher than the assigned naval quota.

But the sailor and the shore worker over the year gave locally more than \$5,600 to the Salvation Army and \$5,300 to the ill, the aged, the handicapped and infirm. The sailor put forth his best efforts on behalf of children, whether they were sick or well, needy or just plain deserving of a break. More than \$18,000 was allocated for the sake of the little ones.

The balance went to a variety of worthy causes and, wherever possible, the sailor put into his charity as personal a touch as possible. For instance, the frigate *Lanark* made its normal charitable disbursements from non-public funds, then through the Salvation Army found a widow with eight children for whom the sailors got together an enormous Christmas dinner with every possible trimming. And again, the

destroyer escort *Chaudiere* caught wind of the impoverished widow who had to live with her children in the bare shell of a three-room dwelling. The ship and a women's organization in Shannon Park naval married quarters put up money for materials, and skilled ship's artisans in their own time completed the interior of the dwelling.

Naval wives of the Command were also active. They succeeded in raising some \$3,600 for the Children's Hospital. A number of ships and establishments, and, in some cases, individuals, have adopted children overseas under Foster Parents and similar plans. The personal touch is very much maintained in these cases and efforts are made on the children's behalf over and above suggested financial offerings. Partial records show close to \$4,000 allocated in 1962.

The Sixth Submarine Division of the Royal Navy in Halifax, composed mostly of Royal Navy personnel, has its overseas charities to think about. But when the submarines entertained a local class of pre-school-age deaf children, they were so moved that they dug deep into their pockets and came up with \$780. Their enthusiasm was matched in the fleet generally, for

the deaf, particularly the pre-schoolers, received last year from sailors more than \$3,500.

The naval and civilian personnel in Point Edward Naval Base at Sydney, N.S., raised a total of \$4,404.50 for local charities, including \$1,248.50 for the Red Feather drive there. In Montreal, where there is a sub-command of the Atlantic Command, more than \$600 was raised for the deserving. At Shelburne, N.S., more than \$500 was raised. HMCS *Cornwallis* came up with \$1,835. Naval Radio Station Albrow Lake, near Dartmouth, produced \$152 for charity and its transmitting station at Newport Corners, near Windsor, N.S., realized \$82.

The newly-commissioned destroyer escort *Mackenzie*, destined for eventual service on the West Coast, raised \$159 for the Victoria Red Feather drive. She is manned by Pacific Command personnel.

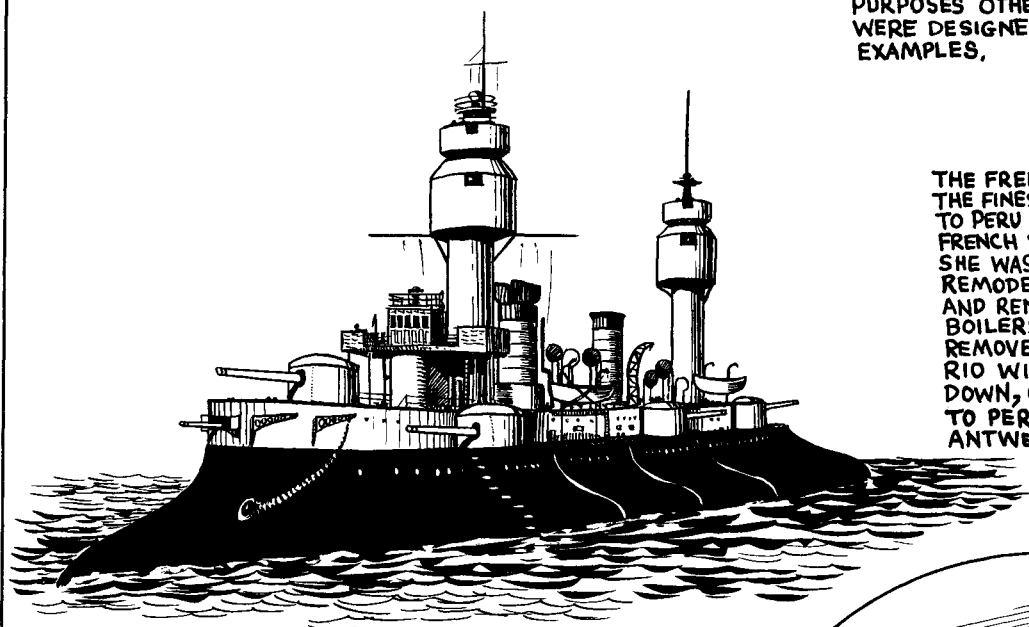
Impossible to record are the many occasions when ships and establishments offered kindness in other forms particularly for the orphaned and the handicapped. These took the form of picnics, visits to ships and establishments and parties at Christmas time.

Naval Lore Corner

Number 112

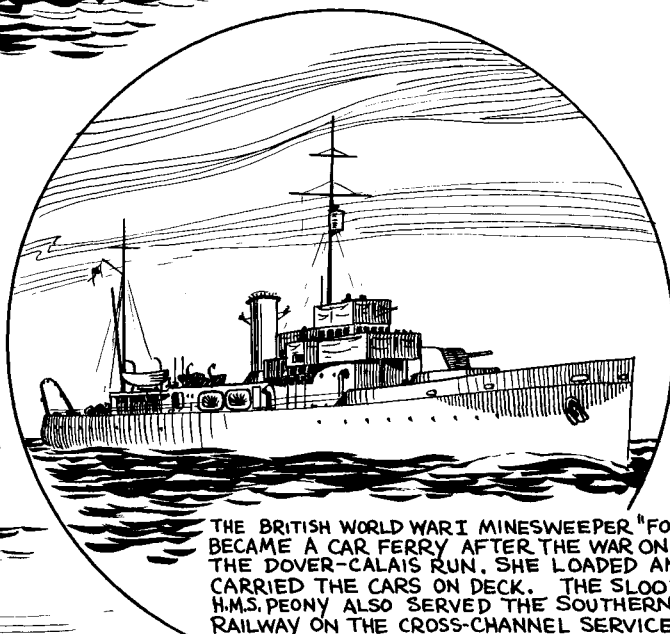
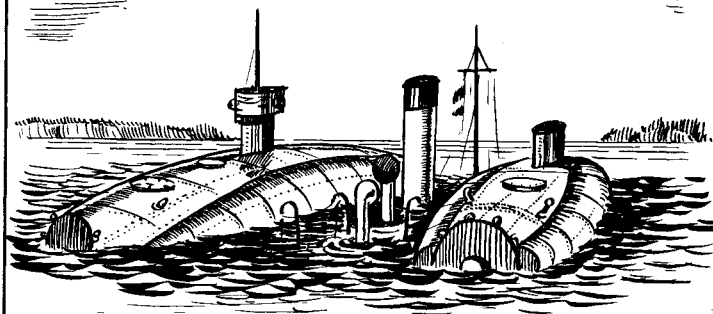
"DOUBLE LIVES"

ATTEMPTS HAVE BEEN MADE...NOT ALWAYS SUCCESSFULLY...TO CONVERT WARSHIPS INTO MERCHANT VESSELS, OR TO USE THEM FOR PURPOSES OTHER THAN FOR WHICH THEY WERE DESIGNED. HERE ARE A FEW VARIED EXAMPLES.

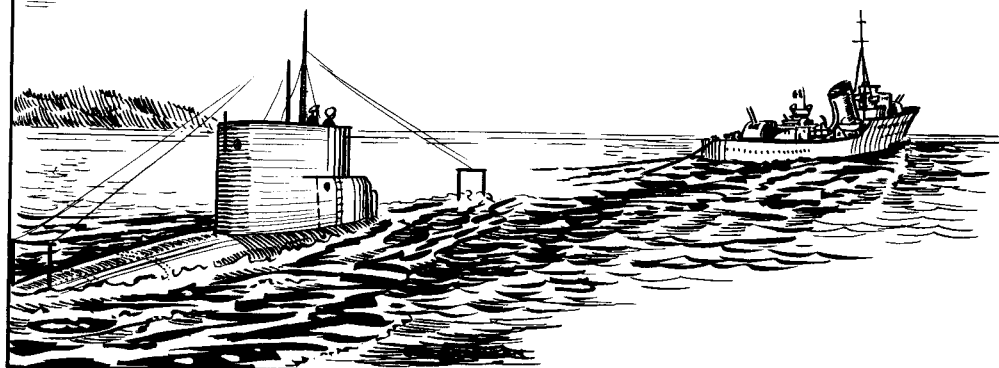


THE FRENCH CRUISER "DUPUY DE LÔME" (1890), THE FINEST CRUISER OF HER DAY, WAS SOLD TO PERU IN 1914, BUT REMAINED IN THE FRENCH SERVICE DURING THE WAR. IN 1919 SHE WAS BOUGHT BY A BELGIAN CONCERN, REMODELLED INTO A CARGO STEAMER, AND RENAMED "PERUVIER". 12 OF HER 18 BOILERS AND 2 OF HER SCREWS WERE REMOVED. SHE LEFT CARDIFF FOR RIO WITH A CARGO OF COAL, BROKE DOWN, CAUGHT FIRE AND WAS TOWED TO PERNAMBUCO, AND THEN BACK TO ANTWERP WHERE SHE WAS SCRAPPED!

(BELOW) IN 1935 TWO EX-ROYAL NAVY SUBMARINES WERE USED AS SALVAGE PONTOONS TO RAISE THE SEMI-SUBMERGED STEAMER "ERROL" WHICH WAS LYING IN THE FIRTH OF FORTH. SHE WAS BROUGHT TO THE SURFACE BY BLOWING THE SUBMARINES' BALLAST TANK.



THE BRITISH WORLD WAR I MINESWEEPER "FORD" BECAME A CAR FERRY AFTER THE WAR ON THE DOVER-CALAIS RUN. SHE LOADED AND CARRIED THE CARS ON DECK. THE SLOOP H.M.S. PEONY ALSO SERVED THE SOUTHERN RAILWAY ON THE CROSS-CHANNEL SERVICE. SIMILAR CONVERSIONS WERE MADE AFTER WORLD WAR II WITH A FRIGATE AND SEVERAL L.S.T.s...



AS A DESPERATE MEASURE TO SUPPLY HER TROOPS IN AFRICA IN 1942, ITALY USED SEVERAL OCEAN-GOING "BALILLA" CLASS SUBMARINES AS TANKERS. STRIPPED TO THE BARE HULL AND WITH ENGINES REMOVED, THEY WERE TOWED SEMI-SUBMERGED BY DESTROYERS AT HIGH SPEED TO BENGAZI AND TOBRUK...

Roger Duhamel

QUEEN'S PRINTER—IMPRIMEUR DE LA REINE

If undelivered return to:

The Queen's Printer, Ottawa, Canada

En cas de non-livraison, retourner à:

L'Imprimeur de la Reine, Ottawa, Canada

