

The CROWSNEST

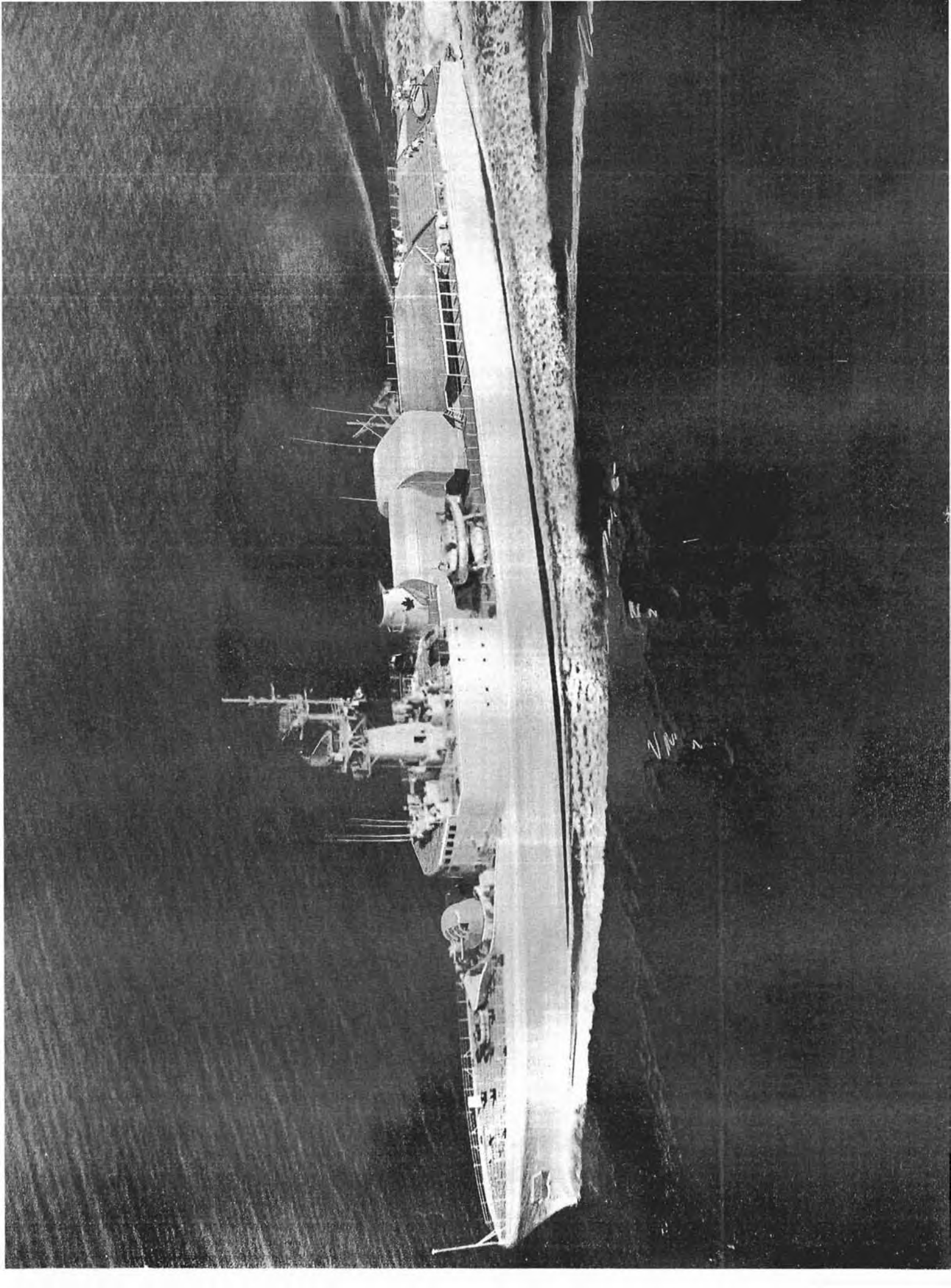


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OUR NAVY

June, 1961

Issue



The CROWSNEST

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OUR NAVY

For the third consecutive year, the annual review of the Royal Canadian Navy's progress, published under the title *Our Navy*, makes its appearance as a special issue of *The Crowsnest*.

Some of the articles were first published in this year's Royal Canadian Navy issue of Canadian Shipping and Marine Engineering News, Toronto.

On the Opposite Page: It was announced in May by the government that approval had been given for the seven destroyer escorts of the St. Laurent class to be modified to accommodate helicopters and carry variable depth sonar. This is an artist's conception of how the ships will look when modifications are completed. Similar changes are being made in the earlier destroyer escort, HMCS *Crusader*.

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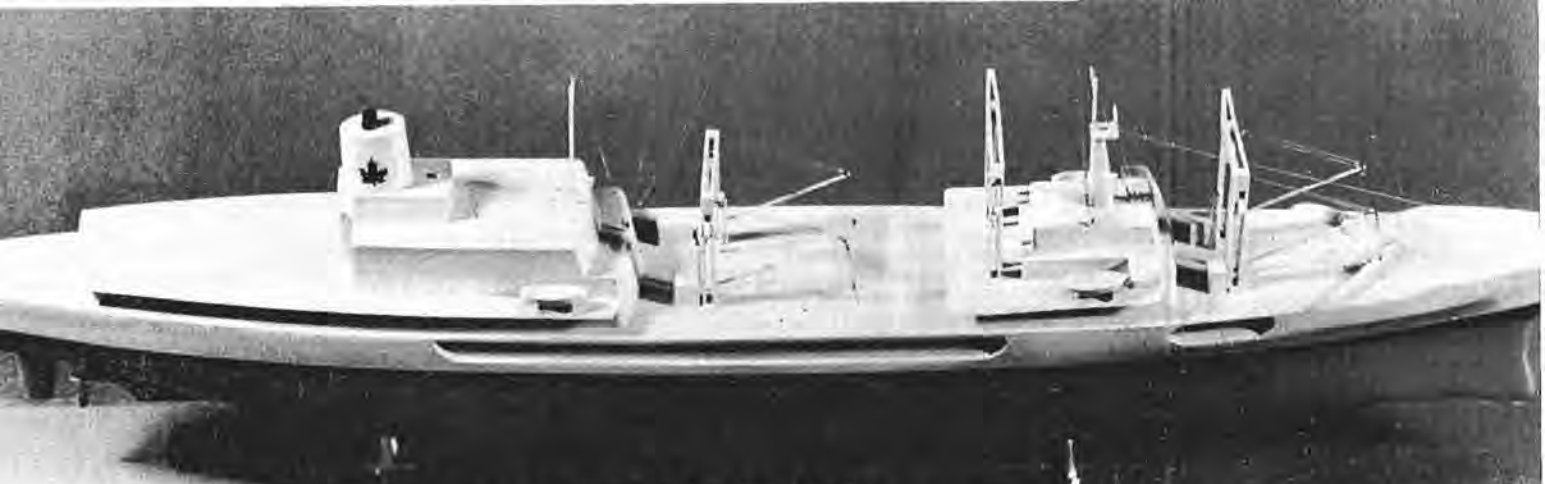
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The Cover—This picture of Ord. Sea. David W. Joss was taken on board HMCS *Gatineau* during the cruise of that ship and three others of her class to Portugal last summer to honour the 500th anniversary of the death of Prince Henry the Navigator. (CCC-5-303)



OUR NAVY—Then and Now

This shows a recently completed model of the 20,000-ton tanker-supply ship whose keel was laid on June 21 at Davie Shipbuilding Ltd., Lauzon, Quebec. When she joins the fleet as HMCS Provider, she will enable destroyer escorts to operate at sea for long periods without returning to their base for replenishment. (O-13716)

"It is important that the main objectives of our armed forces be widely understood, for the defence program on which we have embarked necessarily affects the life of every Canadian citizen, and is not without significance to citizens of other countries.

"The basic purpose of all our armed forces is to assist in the establishment and maintenance of peace . . . The events of the post-war years have, unfortunately, made it clear to everyone on this side of the Iron Curtain that an essential step on the difficult road to world peace is the establishment of collective strength to deter aggression wherever it may occur. Our forces in the Korean theatre, including the naval forces that left Esquimalt within 10 days of the first act of aggression, are engaged in doing that very thing."

WITH THOSE WORDS the then Minister of National Defence, the late Brook Claxton, began the lead article in what was to become the annual review of the Royal Canadian Navy entitled *Our Navy*. That was in 1952.

Mr. Claxton went on to define the role of the Navy. It was, he said, the "maintenance of the great ocean lanes . . . to participate with the Royal Navy and the United States Navy in the broad and taxing task of anti-submarine and general escort work across the North Atlantic."

Nine years later, the aim of Canada's armed forces remains essentially the same as set forth by Mr. Claxton in 1952. It continues to be, above all, the preservation of peace, and its validity has been proven by events.

Where there has been change has been in the roles, the tasks and composition of the armed forces. It is probable, in fact, that greater changes have taken place in Canada's navy, army and air force, between the end of fiscal years 1951 and 1960, than in any previous period of the same length, not counting wartime.

Nine years ago . . .

The manpower of the RCN totalled 13,500. (This figure did not include 107 wrens who had been enrolled on a temporary basis, to find out if there was a place for women in the peacetime navy.)

The RCN had 22 ships in commission—one aircraft carrier, two cruisers, eight destroyers, four frigates, four Algerine escorts and three smaller craft. (Elsewhere in the first *Our Navy* it was noted that this was the largest fleet ever possessed by the RCN in peacetime.)

The Navy had 50 aircraft in service—19 Sea Fury fighters, 22 anti-submarine Avengers, eight Harvard trainers and three helicopters. (The Sea Furies were the ultimate expression of the propeller-driven fighter; the sturdy but slow Avengers were of Second World War vintage; the helicopters had just been acquired.)

The Navy's budget in 1951-52 was \$236,000,000.

At the time, these were impressive figures.

Compare them to today's.

Today . . .

The RCN's personnel strength is 20,000. (This includes 476 wrens. The women have made their place.) More than half the officers and men are serving at sea.

There are 63 ships in commission—an aircraft carrier, 25 destroyer escorts, 18 frigates, 10 minesweepers, a submarine, two escort maintenance ships and six smaller craft.

Seven naval air squadrons operate more than 80 aircraft. These consist of CS2F Trackers, anti-submarine aircraft equipped and armed to "find, fix and strike"; Banshee twin-jet fighters, armed with air-to-air guided missiles; both anti-submarine and general utility helicopters; T-33 jet trainers and other aircraft for support work.

The Navy's budget for 1960-61 was \$271,300,000.

At the same time as the Navy was expanding and evolving between 1952 and 1961, the role and tasks entrusted to it were being enlarged and intensified. Maritime defence came to mean much more than merely the protection of sea lanes and the shipping that travelled thereon. The threat was still the submarine, but with the development of nuclear power and guided missiles, it assumed new and menacing proportions. It is hardly an exaggeration to say that nothing, on land or at sea, is now safe from attack by submarine.

Thus it has become the Navy's job to defend not only against attack at sea, but from the sea—to maintain sea communications in accordance with its classic role, and to detect, identify and destroy enemy submarines before they are able to carry out their deadly missions.

Having reached full authorized strength, the RCN in the past year has been able to direct an increasing amount of energy toward achieving a high state of efficiency and a high degree of readiness. At the same time, full and careful attention is being given to the future needs of the Navy. At present, for example, there are seven ships, six destroyer escorts and a tanker supply ship, under construction and a new type of sonar is being manufactured.

Eight destroyer escorts will be equipped with helicopters and variable depth sonar. These are only some of the more conspicuous example of a continuing and progressive re-equipment program designed to keep the Navy "on top line" in the years ahead.

Future needs have also been recognized in the personnel field. With its weapons and equipment becoming increasingly technical, the RCN has in-

roduced a new personnel structure and a new system of training that will enable ships to be operated more efficiently, and at the same time more economically.

The RCN is a small Navy, in comparison to some. It is quite possible, however, that it may be the largest specialized anti-submarine naval force in the world. It also would like—is determined to be—the best.

Mackenzie Class Name Ship Launched

THE NAME SHIP of the six destroyer escorts now under construction was launched Thursday, May 25, at Canadian Vickers Limited, Montreal.

Mrs. Freeborn, wife of Commodore Frank Freeborn, former Naval Constructor-in-Chief, sponsored the ship and "Hull Number 261" became HMCS *Mackenzie*.

The ceremony was attended by the Hon. Pierre Sevigny, Associate Minister of National Defence, and the Hon. Raymond O'Hurley, Minister of Defence Production. Rear-Admiral J. B. Caldwell, Chief of Naval Technical Services,

represented the Naval Board, and directors of Vickers Limited from Canada and the United Kingdom attended together with civic and military leaders from the Montreal area.

The six ships now under construction are known as Mackenzie class destroyer escorts. One ship, the *Saskatchewan*, was launched February 1 at Victoria Machinery Depot, Victoria, B.C.

Canadian Vickers, which this year celebrates its 50th anniversary, also built the lead ships of the St. Laurent and Restigouche classes of destroyer escorts.

Commodore Freeborn, who began retirement leave in April, played a major role in the development of all three classes. From September 1949 until his appointment as Naval Constructor-in-Chief in July 1956 he served as Principal Naval Overseer, Montreal Area.

The Mackenzie class is basically the same as the Restigouche class, but with some modifications and improvements.

The *Mackenzie* is named after the Mackenzie River in northern Canada. The only other *Mackenzie* in Her Majesty's navies was a Royal Navy trawler of the First World War.



Members of an RCAF Staff College course, mostly Air Force, but including officers of Canada's other armed forces and the USAF, recently spent a day on board the *Bonaventure* to see how the other half flies. The 68 officers from the staff college watched demonstrations that included take-offs and landing by Tracker and Banshee aircraft. The group was headed by Air Commodore W. F. M. Newson, commandant of the College. (RCAF Photo, PL-72318)

NATIONAL DEFENCE

NATIONAL DEFENCE—"a factual outline of the operations of the Armed Services and of the Defence Research Board, together with an explanation of funds requested for fiscal year 1961-62"—was tabled in the House of Commons May 30 by Defence Minister Douglas Harkness.

Object of the 49-page document was to provide Members of Parliament with briefing information prior to consideration of the Defence Estimates for 1961-62.

The document was divided into two main sections: One described the roles and activities of the Armed Services and DRB, the other concerned itself with defence appropriations and expenditures.

The role of the Royal Canadian Navy was defined as, "the maintenance of sea communications and defence of Canada against attack from the sea; to contribute to the collective defence of the NATO area against attack from the sea, and to contribute naval forces to the United Nations as may be required. It is substantially an anti-submarine (A/S) role."

Canada's naval commitment to NATO, in event of hostilities, was listed as the aircraft carrier, 18 destroyer escorts and 11 frigates, to be made available from the Atlantic Command to the Supreme Allied Commander Atlantic. On the West Coast seven destroyer escorts and seven frigates would be made available for the defence of the Canada-U.S. region of NATO in co-operation with the U.S. Navy.

The possibility of RCN elements being employed in a UN role was indicated in a paragraph which stated that, "Ships of the RCN may on short notice be deployed in support of UN operations as directed by the Government, and plans have been made for their most effective use in this role should the requirement arise."

Backing up the RCN is the Royal Canadian Navy (Reserve), whose peacetime role "is to maintain an organization capable of providing personnel for the support of the RCN ashore and afloat in time of emergency, and, at the same time, of providing naval facilities and naval representation in 21 cities across Canada." In an emergency, RCN(R) personnel "would be

called upon to activate or augment communication facilities, provide trained personnel for headquarters staffs, the naval control of merchant shipping and harbour defences, and assist in national survival."

Recognition of the effectiveness of the helicopter in anti-submarine operations was contained in a statement that A/S helicopters "will soon . . . be operating from a small flight deck to be fitted to most of the destroyer escorts." A progressive conversion program to the *Crusader* and the seven St. Laurent class DDEs with helicopter platforms is expected to get under way in 1961-62. Variable depth sonar will be installed in the ships at the same time. Total cost of the program is estimated at \$21,600,000, with \$1,000,000 provided in estimates as an initial expenditure in 1961-62.

Also to be equipped with helicopter platforms and VDS are the last two of the six Mackenzie class DDEs now under construction. Eventually all ships of this class will be similarly equipped.

Another ship to have helicopter facilities will be the 22,000-ton tanker supply ships being built for the Navy at Lauzon, Que. Her helicopter facilities will be chiefly of a service and repair nature, to go with the vessel's other functions of providing mobile logistic support for the fleet in the form of petroleum products, ammunition, torpedoes, provisions and general stores.

Announcement was made that a new research vessel is being designed to meet the requirements of naval scientific research in the Pacific Command.

Subject to successful evaluation, approval has been given to procure, through Canadian industry, the USN Mark 44 homing torpedo, trials of which had demonstrated this weapon's "superiority in speed, depth and acquisition capabilities against deep diving submarines compared to the torpedo now in use in the RCN."

Both the RCN and Defence Research Board sections of *National Defence* made reference to the close liaison and collaboration that exist between the two organizations, with particular reference to research in the anti-submarine field. The Naval Research Establishment at Halifax had developed variable depth

sonar—"a device which promises a three to four hundred percent improvement in submarine detection ranges"—and with the submarine threat assuming ever growing proportions, renewed efforts were being made by DRB "to increase the emphasis on researches, both basic and applied, which may lead to either new or improved methods of detection, tracking and destruction of the modern submarine."

DRB's work on behalf of the Navy extends also to such fields as hull design and ship machinery improvements, radar, communications, electronic counter-measures and armament.

In common with the other services, and with the Armed Forces of most other countries, the Navy is faced with a situation wherein only a minor portion of its budget is available for new equipment. In the 1961-62 estimates, \$71,823,500 is earmarked for construction and major equipment, out of a total budget of \$279,959,000. Most of the rest is consumed by fixed charges—manpower, maintenance and operating costs.

Many fixed charges are just that, and cannot be reduced. Pay is an example. There are other areas, however, where it is possible that economies can be effected, through new or modified methods, or by plain old-fashioned thrift. It is for this reason that all personnel, naval and civilian, of all ranks, are urged themselves to practice economy, and are encouraged to seek ways and means of getting maximum value out of the Navy's dollar.

In this respect, there is reference in *National Defence* to efforts to achieve higher standards of ship maintenance, and at the same time reduce maintenance costs. Particular attention has been directed toward fundamental studies of particular equipments, with assistance from other government departments and from industry, "and already excellent results have been achieved."

"In the care and husbandry of ships, great savings have been made, and more is yet to be done, through the careful planning of the maintenance that can be carried out by the officers and men serving in the ship. These efforts not only increase operational ability but reduce dockyard costs."



Built originally as Winnipeg's Winter Club, this building on the Manitoba capital's Smith Street, just off Broadway Avenue, houses HMCS Chippawa, an active centre of naval life in the prairie city.

THE CHIPPAWA STORY

"We would like you to form a reserve naval company in Winnipeg."

THESE WORDS were spoken by Lt. H. J. F. Hibbard, of Naval Headquarters, Ottawa, to Eustace A. Brock, the assistant secretary of the Great West Life Assurance Company in Winnipeg. The date was February 1923.

So started one of the 21 Royal Canadian Navy (Reserve) training establishments scattered in cities large and small and from one end of Canada to the other.

Mr. Brock, who later became Captain E. A. Brock, is now retired and living in England, and Lt. Hibbard, retired as a lieutenant-commander in 1942, lives at Cobourg, Ontario. And what they discussed that day, 38 years ago, is today one of the largest of the 21 Reserve establishments, a fully commissioned "ship" in Her Majesty's Royal Canadian Navy, with more than 300 officers, offi-

cer cadets, men and women under training. Her name is HMCS *Chippawa*.

She's a happy ship, an active ship, and although she's often referred to by Winnipeg citizens as "the stone frigate hard by Smith Street", she's an important part of the community, playing a big part in the lives of hundreds of people every day of the week.

How does *Chippawa* fit into Canada's defence structure? What goes on behind the stone walls of the building Winnipeg sailors call their "ship"?

The Winnipeg reserve naval establishment was officially commissioned HMCS *Chippawa* in 1941, having been known at first as the Winnipeg Company,

RCNVR, and then as the Winnipeg Division.

Chippawa was named after a vessel which led the line of Commodore Barclay, RN, in action against the Americans in the Battle of Lake Erie in September 1813.

The word "Chippawa" is a popular adaptation of "Ojibway", name of a tribe that formerly ranged along the Great Lakes, through Minnesota to the Turtle Mountain area of Manitoba. It was one of the largest tribes north of Mexico, and it is interesting to note that the ship which bears this Ojibway name is one of the largest naval divisions in Canada, provides facilities for the largest Sea Cadet Corps in the British Commonwealth and is also the training headquarters for the largest Navy League Cadet Corps in Canada.

Since being formed in 1923, the establishment has been a vibrant part of

By
Lt. (SB) T. G. R. Nightingale
RCN(R)

Winnipeg, having trained thousands of young prairie men and women to serve Canada in peace and war. It has twice won the Naval Divisions Efficiency Trophy, awarded annually to the top reserve division in the country.

Although the building which is a ship is actively used every night of the week, Tuesday evening is the main drill night, and the more than 300 reservists go hard at it from divisions at 2000 to evenings quarters at 2230.

In these two and one-half hours, the reservists undergo training in general seamanship, communications, sonar, the supply trades, and in the electrical and engineroom trades.

As the commanding officer of *Chippawa*, Cdr. J. W. Dangerfield, put it: "Our job here is to train men to be able to take on a job or at least have the basic knowledge of how to tackle it, if the chips are ever down."

Making sure that the men, and women, of *Chippawa* have the ability to tackle the job is the responsibility of Lt.-Cdr. C. R. Godbehere, the training commander, a reservist for 15 years and a veteran of the Second World War.

Under him is a qualified staff of instructors, all reservists themselves and many of whom have served in the Navy in many parts of the world. In addition, Lt.-Cdr. C. A. Hamer, RCN, is the Staff Officer, Administration. Lt.-Cdr. Hamer has been in the Royal Canadian Navy since 1950 and had a long association with the sea before that.

A Royal Naval Reservist during the war, he served in the merchant service before and after hostilities. He attended the Thames Naval Training College, HMS *Worcester*, and served in her tender, the famous *Cutty Sark*.

The training given the reservists at *Chippawa* is both varied and interesting. Learning to be reasonably skilful in seamanship is no easy task one evening a week, but a summer training period of anywhere from two weeks to six weeks at one of the RCN's shore establishments or in a ship at sea soon puts theoretical classroom work into practical application.

This latter training is usually undertaken during the summer months, and the chance to go to sea has always proven to be a big drawing card for reserve recruiting in Winnipeg and elsewhere on the prairies.

During 1960, 181 officers, men and wrens from *Chippawa* undertook training either at sea or at a shore establishment away from Winnipeg.

During early 1961, eight men from the ship undertook such training, most

of them at sea, taking them from the below zero winter temperatures of the prairies to the balmy climes of the South Pacific and the West Indies.

Among those on Naval Training at the time of this writing was the commanding officer, Cdr. Dangerfield. He first joined the old Royal Canadian Navy Volunteer reserve in June of 1940. He served in the Pacific in the armed merchant cruiser HMCS *Prince Robert*, and then on North Atlantic convoy duty. He also took an anti-submarine course at a Royal Navy training establishment in England.

On completion of his war service, he rejoined the RCN(R) at *Chippawa* in 1947 with the rank of lieutenant. He was appointed executive officer in the spring of 1960, and became commanding officer

in September of the same year, succeeding Captain L. B. McIlhagga, who stepped down after eight years in command.

In civilian life, he is associated with Dangerfield Hotels Limited, and is active in community affairs. A keen seaman, he is a member of the Royal Lake of the Woods Yacht Club.

Who are some of the other Winnipeg citizens who give their time and energy to the Reserve? Who are some of these people who are "sailors" one night a week and clerks, mechanics, salesmen, teachers, etc. in civilian life?

Take AB Erik Askew. In civilian life he's a CPR machinist, but in the Navy, he's a bandsman. Ord. Sea. H. J. Black is a student both in civilian life and in the Reserve, where he takes com-



Communications training is one of *Chippawa's* specialties. Here a group of wrens write out a message as it is tapped out in Morse code.

munications training. CPO Art Dale is a fireman in Winnipeg's neighbouring French-speaking community of St. Boniface. Ord. Sea. Robert Glass, who is taking general seamanship training, works for the Manitoba Telephone System. Wren Phyllis Valentine is a leading communicator, who in civilian life works for television station CJAY.

The *Chippawa* reservists are drawn from all walks of life, and in some cases, the reserve draws more than one member of the family.

Petty Officer Second Class Don Ferguson is an Engineroom Mechanic, while his wife, Wren Petty Officer First class Sheila Ferguson—yes, she outranks him—works in *Chippawa's* pay office. This may pose a problem when P2 Don has to go to WP1 Sheila to draw his naval pay, but they both take in their stride.

Another similar team is Cdr. J. L. Freeman and his son, Lt. Peter Freeman. Cdr. Freeman is commanding officer of the University Naval Training Divisions, where the reserve officers are

trained. His son is in *Chippawa's* torpedo/anti-submarine department.

Many of the older men in the reserve division have sons in the Sea Cadets or Navy League Cadets, making sure the naval tradition stays with the family.

Although training is serious, hard work in *Chippawa*, there are plenty of other activities to keep the men and Wrens interested. There is an old saying that all work and no play makes Jack a dull boy, so care is taken in the ship to make sure there is play. Having at one time been the Winnipeg Winter Club, *Chippawa* boasts its own indoor swimming pool which is available to all members of the reserve, their families, the Sea Cadets and the Navy League Cadets. The pool is also used by several outside or "ashore" organizations such as the city police, the War Amputees Association, the Red Cross Water Safety Association, and others.

Some years ago, the pool became the object of a *Chippawa* verse of the

familiar reserve navy song "Roll Along Wavy Navy". It goes:

O we joined for the chance to go to sea . . .

O we joined for the chance to go to sea . . .

But the only sea we saw . . .

Was the pool in *Chippawa* . . .

Roll along Wavy Navy, roll along!

The special verse is now part of the ship's tradition and is sung in many a mess whenever *Chippawa* personnel are away on naval training.

But there was a less happy time when *Chippawa* had too much water to contend with. In 1950, the Red and Assiniboine Rivers overflowed, creating the worst flood in Winnipeg's history. Thousands of people had to be evacuated from their homes and sent to neighbouring towns and provinces.

Being close to the point where the two rivers meet, *Chippawa* was soon a stone frigate almost afloat in flood water several feet deep, but when the military authorities took over the situation



The swimming pool at *Chippawa*, one of the naval division's busiest departments, is serving not only reserve personnel and their families, but several community organizations as well. At one period it was an active centre of treatment for victims of a devastating polio epidemic that struck Manitoba.

at the request of the city and province, she carried on as the Navy's flood combat headquarters.

Naval personnel, both regular and reserve, were sent to Winnipeg from all over the country and lived on board *Chippawa* for several weeks. The ship's galley was activated within 48 hours to serve 1,500 meals a day, and *Chippawa's* main drill deck served as a dry dock for motor boats and other craft used in the flood combat operation. Several naval divers were also sent to the city to work out of *Chippawa*, clearing sewers and obstacles and investigating flooded houses and buildings at the height of the emergency.

The flood waters subsided, but *Chippawa's* job was not yet done. Shortly after one crisis was over, another spring up in the form of polio epidemic. Therapy was needed for its victims and the *Chippawa* pool, its water heated, was pressed into service in a humanitarian, as well as recreational role for two years.

On the happier side of the picture, *Chippawa's* messes are "going concerns". The men's mess, presided over by Ldg. Sea. Glen Shaw, is an attractive and highly popular part of the ship, which organizes many dances, wiener roasts and other activities during the training year. The same happy situation holds in the chief and petty officers' mess, under president CPO Sandy MacPherson, and in the wardroom, or officers' mess.

Sports activity rates high in *Chippawa* winter and summer. In addition to the swimming pool, the ship has its own bowling alleys which are used by teams organized from each of the messes. The ship also has its own curling leagues, and these enter teams in the annual Manitoba bonspiel and in various military bonspiels.

Many organizations are associated with *Chippawa*, and these, too, undertake activities, often of a social nature. These include the Naval Officers' Associations of Canada, which has a Winnipeg membership of over 150, the Reserve Officers' Wives Association, the Ex-Wrens Association, the Ex-Chief and Petty Officers' Association, the Ladies' Auxiliary to the Chief and PO's Association, and the Manitoba Division and Greater Winnipeg branch of the Navy League of Canada.

Greater Winnipeg, with its population of close to half a million people, is a city well spread out over the prairie landscape, and a drive of three or four miles or more to the ship on parade night is most common. For a few members of the ship's company, however, the weekly trip is considerably longer.



Far from the sea, RCN(R) personnel at *Chippawa* learn the technique of submarine hunting in the division's sonar room under the guidance of Lt. Peter Freeman.

Lt.-Cdr. J. B. Thorsteinson commutes by car from the city of Brandon, 150 miles to the west of Winnipeg, to take up his weekly duty as the ship's electrical officer. Sub-Lt. George Robb drives in from Portage La Prairie, 60 miles from Winnipeg. These two are exceptions, but several other reservists live in small communities or on farms close to Winnipeg and drive ten to 20 miles each parade night.

In addition to the reserves, HMCS *Chippawa* serves as the training headquarters for two corps of Royal Canadian Sea Cadets and one corps of Navy League Cadets. Sea Cadets range in age from 14 to their 19th birthday, while the Navy League cadets are aged 12 to 14.

One of the Sea Cadet Corps, named after John Travers Cornwell who won the Victoria Cross as a boy seaman in the Battle of Jutland during the First World War, is believed to be the largest Sea Cadets corps in the British Commonwealth, with a complement of 400 cadets. The other Sea Cadet Corps in

Winnipeg, *Crusader*, bears the name of one of the proud ships of the RCN. It is affiliated with St. Paul's College in the city, which requires all of its grade nine students to belong to the cadets as part of their disciplinary training.

Winnipeg's Navy League Cadet Corps is the largest in Canada, with an enrolment of 300 boys. The corps is named after J. R. K. Millen, a national vice-president of the Navy League of Canada, who has long been associated with youth work in Winnipeg and throughout Canada.

The Women's Auxiliary to the Manitoba Division of the Navy League of Canada also takes an active interest in the corps, providing two scholarships a year to further the education of selected cadets.

Many Sea Cadets and Navy League Cadets go on with their naval training when they pass beyond the age limits of the cadet corps. The same holds true for the reserve personnel, many of whom find they like the sailor's life well enough to make a career of it.

During 1960, five Winnipeg naval reservists and 30 members of the Sea Cadets corps joined the Royal Canadian Navy.

The spiritual needs of the Reserve Personnel in *Chippawa* are well taken care of. There are three padres in the establishment, one Roman Catholic and two Protestant. They conduct services on appropriate Navy anniversaries, such as Battle of the Atlantic Sunday, Trafalgar Day, and others. Many members of the reserve also bring their children to *Chippawa* to be baptized on board the "ship", where the chaplains keep bottles of Pacific Ocean and Atlantic Ocean waters on hand at all times. The parents have their choice of the sea water with which they want their son or daughter baptized.

Considerable numbers of men and women of the Royal Canadian Navy can look back on *Chippawa* with fond memories, including some who have gone on to senior appointments in the RCN. These include Commodore Jeffrey Brock, the son of *Chippawa's* first commanding officer, who on June 30 be-



Cdr. John W. Dangerfield, commanding officer of HMCS Chippawa, the Winnipeg naval division. In civilian life, he is associated with Dangerfield Hotels Limited.

comes Vice-Chief of the Naval Staff in the rank of rear-admiral.

She's just a stone frigate hard by Winnipeg's Smith Street, but *Chippawa* is really a bit of Canada's maritime tradition, even though her homeland and everlasting port is far from the sea. She flies her colours far from the arenas of many famous, glorious and tragic battles that bring to mind names such as Nelson, and *Victory*, Jutland, and the North Atlantic.

However, on the anniversary of these battles, signal flags are hoisted on the mast in front of *Chippawa* to commemorate them.

In 1805, when Admiral Lord Nelson hoisted his now famous signal "England Expects Every Man Will Do His Duty", he of course could not have known or dreamed that his words would be spelled out again more than 150 years later on the mast of another ship of another Monarch in a prairie city far from Trafalgar.

But the men and women of HMCS *Chippawa* harken to his words and prepare for the day, if ever again the call comes to do their duty.



Navy wives on the West Coast are serious about PT, according to the attendance during a 25-week course at Naden. An average of 103 wives attended the course, which included 45 minutes of PT, 45 minutes of games, and 30 minutes of swimming each Thursday evening. The naval wives are shown during the final class when they capped the season with an impressive display at the P and RT centre at Naden. Course instructor was Ldg. Sea. S. O. Duffey.

COMPOSITION OF THE FLEET

The Royal Canadian Navy has 64 warships in commission. These include an aircraft carrier, seven Restigouche class and seven St. Laurent class destroyer escorts, 11 other destroyer escorts, 18 frigates, a submarine, 10 minesweepers, two escort maintenance ships and seven smaller craft. Two Royal Navy submarines were attached to the Atlantic Command under the operational control of the RCN. Six naval vessels are in reserve and three on loan to other government departments.

There are three first line air squadrons, one fitted with Tracker anti-submarine aircraft, one armed with Banshee all-weather jet fighters and one operating anti-submarine helicopters. Four other squadrons are engaged in training, evaluation and other duties.

Now building in Canadian shipyards are six more destroyer escorts, similar to the Restigouche class, and a 22,000-ton tanker-supply ship, the *Provider*, whose prime function will be to keep the fleet at sea by providing fuel and supplies on the spot. A prototype of VDS is fitted in the *Crescent* (destroyer escort).

To man the ships, establishments and aircraft the RCN is at its peak strength of 20,000 officers and men. The ratio of officers and men at sea to those ashore is the highest ever, with just over 50 per cent serving afloat.

The composition of the fleet, East and West, by ships and squadrons, is as follows:

Atlantic Command - Ships Based at Halifax

HMCS Bonaventure , aircraft carrier		Fifth Canadian Escort Squadron		Ninth Canadian Escort Squadron	
<i>First Canadian Escort Squadron</i>		(destroyer escorts)		(frigates)	
(destroyer escorts)		HMCS <i>Gatineau</i>		Restigouche class	
HMCS <i>Algonquin</i> Algonquin class		HMCS <i>Restigouche</i>		" "	
HMCS <i>Huron</i> Tribal		HMCS <i>St. Croix</i>		" "	
HMCS <i>Haida</i> " "		HMCS <i>Kootenay</i>		" "	
HMCS <i>Nootka</i> " "		HMCS <i>Terra Nova</i>		" "	
HMCS <i>Iroquois</i> " "		HMCS <i>Chaudiere</i>		" "	
		HMCS <i>Columbia</i>		" "	
				First Canadian Minesweeping Squadron	
Third Canadian Escort Squadron		Seventh Canadian Escort Squadron		(minesweepers)	
(destroyer escorts)		(frigates)		HMCS <i>Resolute</i>	
HMCS <i>Crescent</i> Algonquin class		HMCS <i>Fort Erie</i>		Bay class	
HMCS <i>Mimac</i> Tribal		HMCS <i>New Waterford</i>		" "	
HMCS <i>Sioux</i> " "		HMCS <i>Lanark</i>		" "	
HMCS <i>Cayuga</i> Tribal		HMCS <i>Outremont</i>		" "	
HMCS <i>Athabaskan</i> " "		HMCS <i>Victoriaville</i>		" "	
		HMCS <i>Inch Arran</i>		" "	
Special Duties				RCN Air Squadrons	
HMCS <i>Cape Scott</i> Cape class escort maintenance ship		VF-870 F2H3 Banshees		VS-880 CS2F-2 Tracker A/S aircraft	
HMCS <i>Crusader</i> "C" class equipment trials destroyer escort		VU-32 T-33 Silver Star jet trainers		CS2F-1 Trackers	
HMCS <i>Granby</i> Diving depot ship (converted Bangor (M/S))		HS-50 HO4S Sikorsky A/S helicopters		CS2F-2 Trackers	
HMCS <i>Porte Saint Jean</i> —Porte class gate vessel		HU-21 HTL Bell helicopters		HO4S Sikorsky helicopters	
HMCS <i>Loon, Mallard, Cormorant</i> —Bird class harbour patrol craft.		VX-10 Various aircraft for experimental purposes.			
Sixth Submarine Squadron (RN under RCN Operational control)					
One or two "A" class submarines					

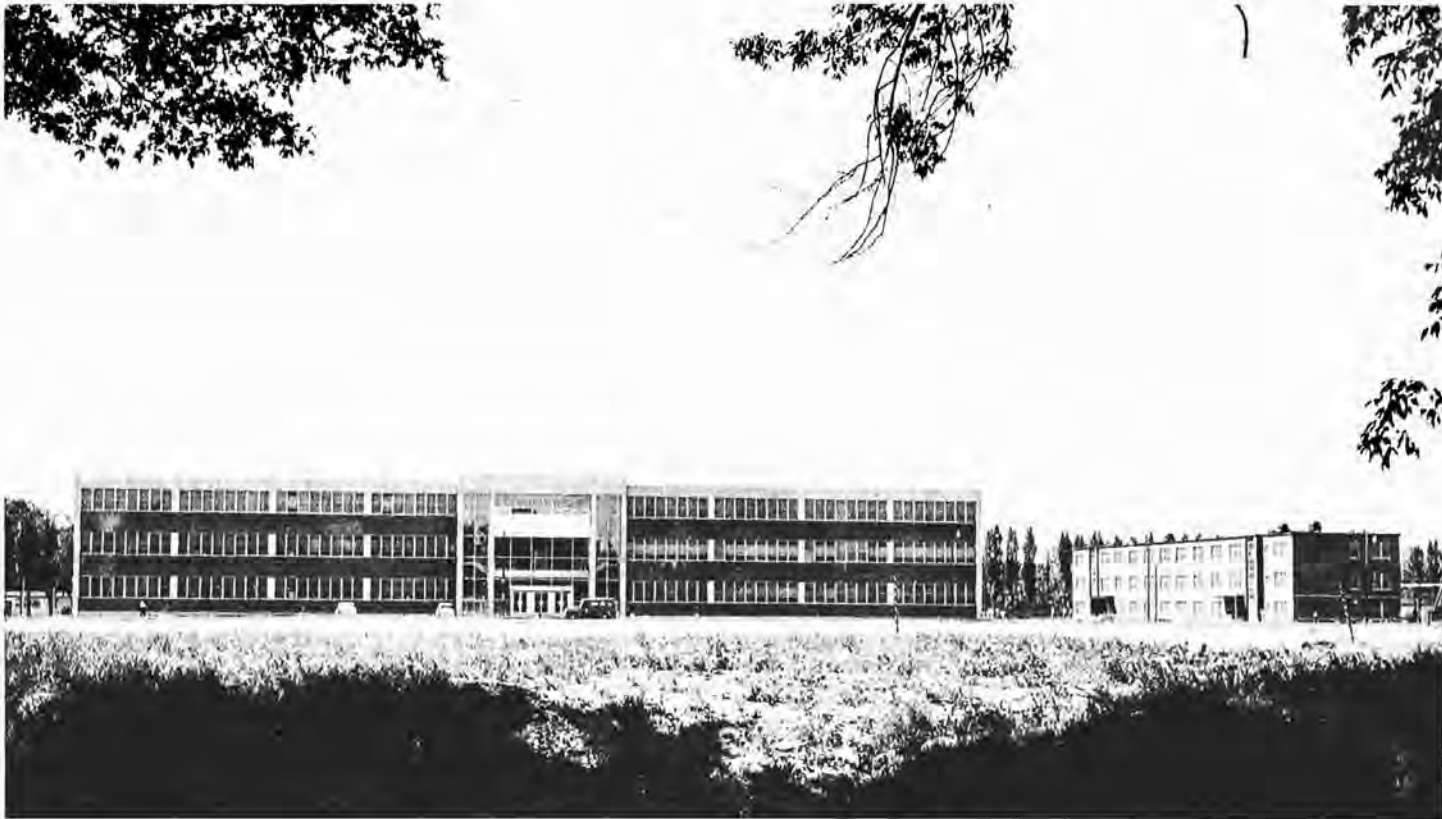
Pacific Command - Ships Based at Esquimalt

Second Canadian Escort Squadron		Fourth Canadian Escort Squadron		Second Canadian Minesweeping Squadron	
(destroyer escorts)		(frigates)		(minesweepers)	
HMCS <i>Ottawa</i> St. Laurent class		HMCS <i>Jonquiere</i>		HMCS <i>Fortune</i>	
HMCS <i>Saguenay</i> " " "		HMCS <i>Sussexville</i>		Bay class	
HMCS <i>St. Laurent</i> " " "		HMCS <i>Bacon Hill</i>		" "	
HMCS <i>Margaree</i> " " "		HMCS <i>Antigonish</i>		" "	
HMCS <i>Fraser</i> " " "		HMCS <i>Ste Therese</i>		" "	
HMCS <i>Skeena</i> " " "		HMCS <i>New Glasgow</i>		" "	
HMCS <i>Assiniboine</i> " " "		HMCS <i>Stettler</i>		" "	
Special Duties				RCN Air Squadron (Patricia Bay Airfield, near Victoria)	
HMCS <i>Cape Breton</i> , class escort maintenance ship		VU-32 CS2F-1 Tracker anti-submarine aircraft		HUP helicopters	
HMCS <i>Grilse</i> , Balao class submarine		T-33 Silver Star jet trainers			
HMCS <i>Oriole</i> , training sailing yacht attached to HMCS <i>Venture</i> , junior officer training establishment.					

Commanding Officer Naval Division - Hamilton

Two frigates of the Ninth Escort Squadron (the *Lauzon* and *Buckingham*) are under operational control of the Commanding Officer Naval Divisions during the Great Lakes summer training season, as is the small cargo vessel, HMCS

Scatari. There are two RCN(R) air squadrons, VC 922, attached to HMCS *Malahat*, Victoria naval division, and VC 920, attached to HMCS *York*, Toronto naval division. They are equipped with Expeditor aircraft.



Delery Hall, centre of academic learning at CMR. (PL-106616)

Le College Militaire Royal

Attention! A droite, tournez. Un, deux, trois, un! Vous êtes lents, messieurs, un peu plus d'énergie, s'il vous plaît! En avant—Marche!

OVERHEARD at the École Militaire de Saint-Cyr? Not at all. Orders given in French are a daily occurrence at the College Militaire Royal de Saint-Jean in the very heart of Canada.

The College Militaire Royal de Saint-Jean, better known as CMR, is the youngest of the three Canadian Services Colleges. As a military institution, it is unique in the Western hemisphere inasmuch as it is the only one of its kind to employ two languages in the training of officer cadets of the Navy, Army and Air Force.

The College is situated on the Richelieu River in the outskirts of Saint-Jean, Quebec, some 27 miles south of Montreal. The site on which it is located is that of Fort Saint-Jean, established in 1666, as one of a series of forts serving on the main invasion route to Canada from The Thirteen Colonies. During the American War of Independence, an attempt was made to invade Canada and General Richard Montgomery proceeded down the Richelieu River and laid siege to the fort. After

a long and heroic resistance, the fort fell to the invaders but the delay encountered had important results. When Montgomery arrived before Quebec City, the Canadian winter had already set in and it proved to be a particularly bitter one. Reinforcements finally came under General Benedict Arnold but they were exhausted and useless after a forced march through the woods of Maine. The expedition failed.

By
Captain M. J. A. T. Jetté
RCN

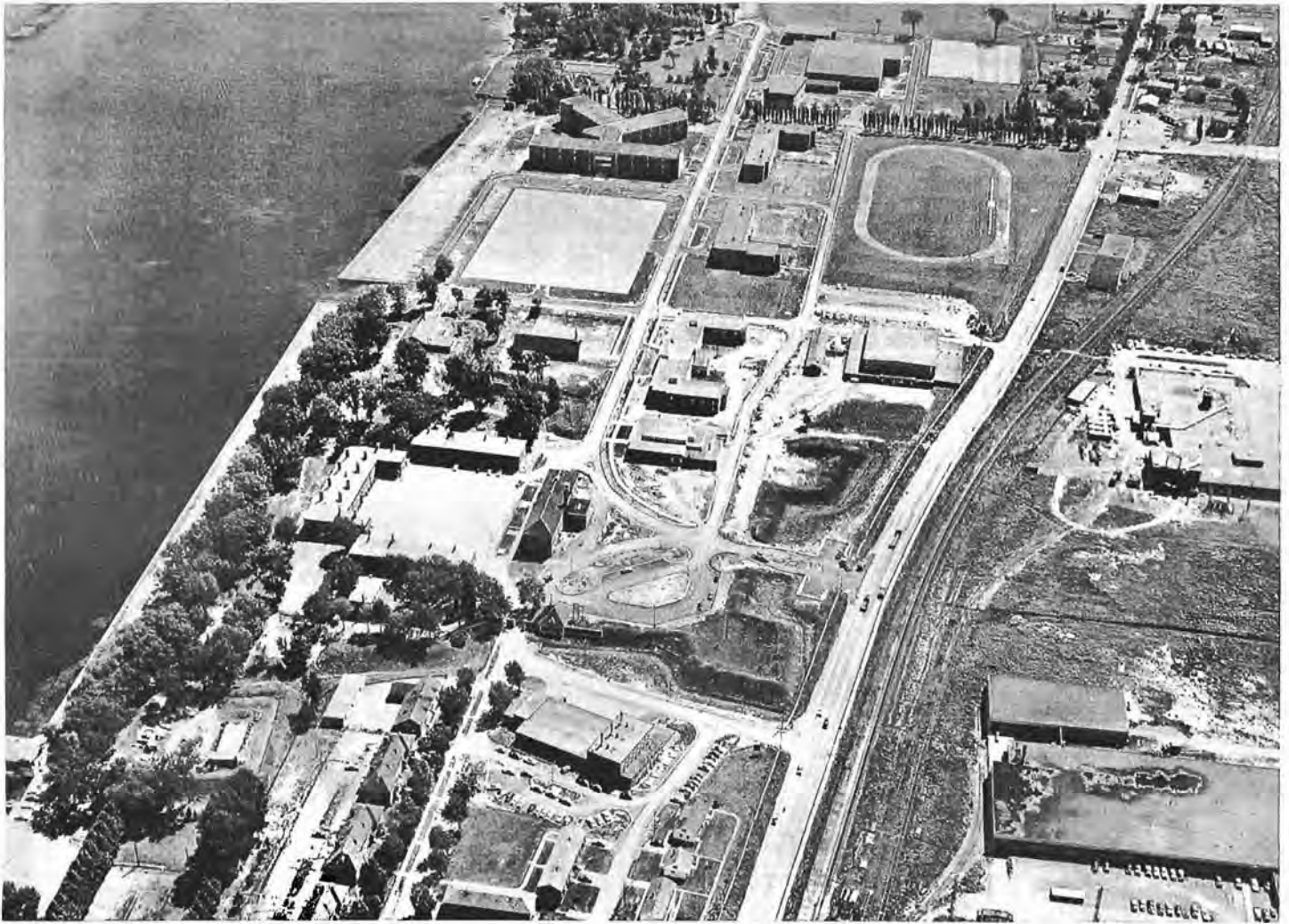
It is noteworthy that among the 650 Canadian troops taking part in the defence of Fort Saint-Jean, there were 89 soldiers of French origin. This is the first, but certainly not the last, recorded instance of French-speaking and English-speaking Canadians fighting side by side in a common cause.

In the course of time Fort Saint-Jean underwent innumerable changes. Scarcely damaged in the war of 1812-14, it was gutted by the fire in 1817, but was rebuilt immediately. Today some of the buildings erected in 1839 are still in use.

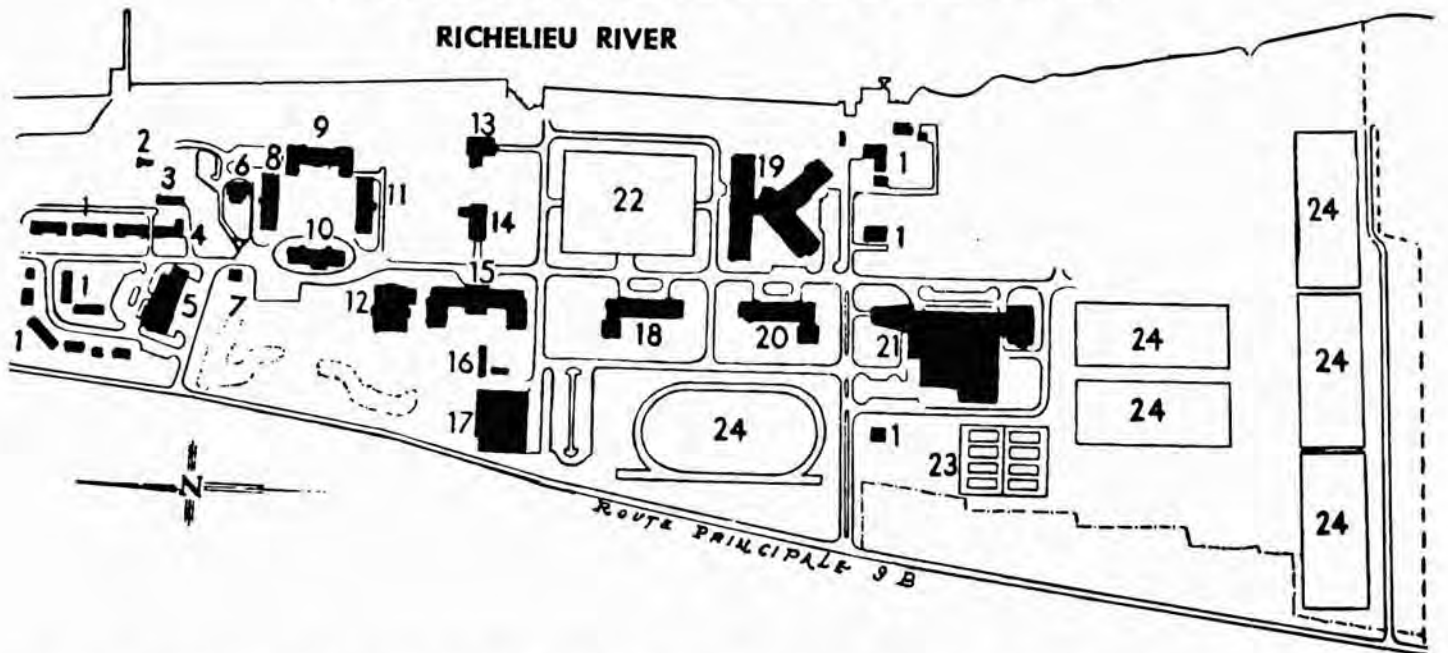
Fort Saint-Jean has been occupied by some of the most famous regiments of France and by distinguished British and Canadian units: The Royal Engineers, the Royal 22^e Regiment and the Canadian Army Training School to name but a few.

Nearly three centuries of healthy military traditions make the choice of Fort Saint-Jean as a centre of training for our young officers of today a logical one.

The establishment in 1952 of the College Militaire Royal de Saint-Jean met a long-standing need for an institution wherein French-speaking youths could receive at least a part of their military and academic training in their native language. From its inception, the ideal of bilingualism was accepted and a desirable ratio of 60 per cent French-language to 40 per cent English-language officer cadets was established. In addition, a preparatory year was provided which permitted direct entry into CMR of junior matriculants from the high schools of Quebec and other provinces of Canada. Since the Royal Military College of Canada at Kingston was administered by the Canadian Army, and Royal Roads, near Victoria,



Le Collège Militaire Royal de Saint-Jean, on the east bank of the Richelieu River.



Legend: 1—Married Quarters. 2—Greenhouse. 3—Shed. 4—Construction Engineering Section. 5—Services Building. 6—Sergeants' Mess. 7—Warehouse. 8—North Block. 9—Officers' Mess. 10—Administration Building. 11—South Block. 12—Cadets' Dining Hall. 13—Protestant Chapel. 14—Roman Catholic Chapel. 15—Maisonneuve Dormitory. 16—Hospital. 17—Drill Hall—Supply Section. 18—Champlain Dormitory. 19—deLery Hall (Academic Building). 20—Cartier Dormitory. 21—Sports and Recreation Building. 22—Parade Square. 23—Tennis Courts. 24—Sports Fields. (CN-6189)

by the Royal Canadian Navy, it was logical that the administration of College Militaire Royal de Saint-Jean should be entrusted to the Royal Canadian Air Force.

The first Commandant was Colonel M. L. Lahaie, DSO, CD, RCA, who guided the destinies of the infant college through the formative years. In 1957, he was succeeded by Group Captain J. G. Archambault, AFC, CD, RCAF. The cycle of Commandants was completed in 1960 with the appointment of a naval captain. Logically, all of the Commandants to date have been French-speaking Canadians.

Broadly speaking, the academic program at CMR is similar to that of its sister colleges, although it possesses significant peculiarities which will be explained shortly. Like Royal Roads, the course at CMR is of two years' duration after the preparatory year. Graduates of CMR proceed to the Royal Military College to complete the final two years of the four-year curriculum and, thereby, qualify for degrees in Engineering, Science or Arts. At the moment of graduation, they also qualify for the Queen's Commission in the Service of their choice.

In DeLery Hall, completed in 1957, the academic facilities of the College are located in one single unit. Here may be found up-to-the minute laboratory and classroom facilities; a 40,000-volume library, an air-conditioned amphitheatre, an extensive draughting room and a language laboratory.

The College calendar lists a teaching staff of 67 civilian professors and four members of the Armed Forces. The majority of the academic staff are bilingual and provision is made within each department for the teaching of its subject matter in both languages. This accounts for the rather high instructor to student ratio of better than one to six.

THE OUTSTANDING characteristic of CMR is its bilingualism. Roughly half the students at any time are French-speaking; the remainder, English-speaking. The aim of CMR is to teach each group not only to read and write in the language of the other, but to make each officer cadet an easy conversationalist in his second tongue. How does the College go about the accomplishment of this ambitious task?

At first glance, the sheer numbers involved would seem to present a formidable difficulty. However, this is turned to advantage. Each officer cadet is given a preliminary examination to determine his initial proficiency in the secondary language. He is then placed in a class of

ten students or so who are at a comparable level. The instruction is then tailored to each class.

A good deal of the language training is given in an elaborate "language laboratory". Each student works by himself in one cell of the lab. Each of the fifteen cells contains a recording device, and is connected to the others and to the instructor's console by an intercommunication system. The instructor can listen in on any student he selects, can interrupt any student or students he wishes, or he can feed taped lessons to any combination of students he chooses. The students can record their conversations, and the instructor

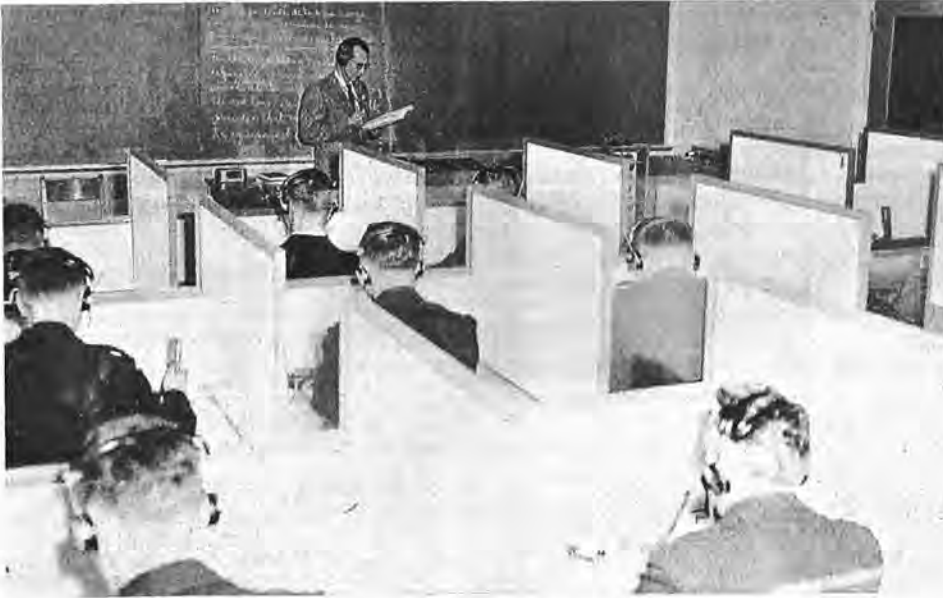
can correct the recording at a later time, much as he would a written assignment.

When an officer cadet enters CMR, he is asked to record a text in his second tongue. This tape is then preserved until he leaves, at which time he makes a second recording of the same text. He is then in a position to realize fully the great strides he has made in the mastery of the other language.

This classroom language training is supplemented by an elaborate system of bilingual administration at the College. It is a regulation that during the first half of each month, the "official" language is French. During this period, sermons in the chapels, written and



The commandants of the three Canadian Services Colleges conferred in January at Royal Roads, westernmost of the colleges, near Victoria. From left to right they are Group Captain Alan F. Avant, RCAF, head of Royal Roads; Captain M. J. A. T. Jette, RCN, of College Militaire Royal de Saint-Jean, Quebec, and Brigadier W. A. B. Anderson, of Royal Military College, Kingston.



The language laboratory in action at CMR.

verbal orders, sports instructions, even parade square commands, are given in French. The situation is reversed for the second half of the month. Since the officer cadets are lodged two per room, care is taken to assign a French-speaking and an English-speaking officer cadet together. They are then expected to converse in the language of the day.

Exceptions, of course, have to be made to these rules, especially at the beginning of the academic year, when the majority of the "recruits" arrive with little or no knowledge of the alternative language.

It must be emphasized here that the academic lectures are given in the officer cadet's native language. The selection of language preference is made at the outset of the Preparatory Year and is binding for the three years; although exceptionally an officer cadet, who is bilingual at the outset, may elect to change his language selection somewhere along the way.

AS PREVIOUSLY stated, the length of a course at a Canadian Services College is four years from Senior Matriculation. The preparatory year at CMR provides a uniform preparation for first year for the graduates of the classical schools of Quebec, as well as the junior matriculants of differing standards throughout the country. Only Bachelor of Arts graduates of the classical colleges may be admitted directly into the first year and these are few in number. The curriculum of the preparatory and first years is weighted in favour of mathematics and the sciences and no options are permitted. In the second year, however, selection

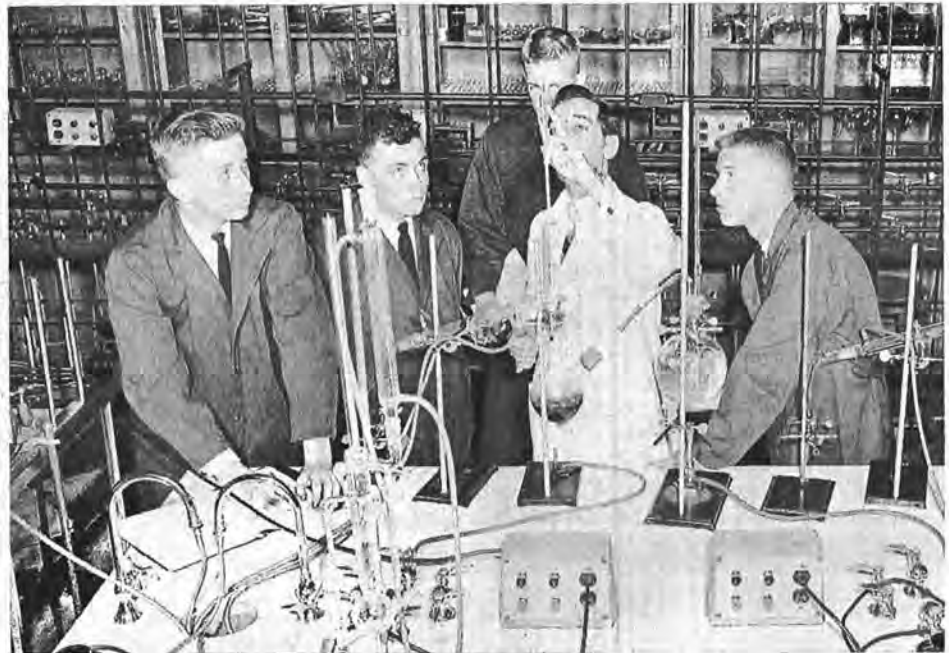
of patterns of study may be made and a choice of an Engineering, General Science or Arts degree course is required.

CMR trains officers for the three Services, as do the other two Service Colleges, and the applicant chooses his Service at the time of his entry into the College. This usually takes place on the second day of his arrival and it is not unusual to observe swearing-in ceremonies going on in half a dozen places in two languages. Once enrolled, an officer cadet is afforded one opportunity only to transfer Services and that is within the first two months of the second year.

The cadet body for military purposes constitutes a "wing", which is subdivided into three squadrons. These are named "Maisonneuve", "Cartier" and "Champlain" after the French heroes of an earlier day, and a healthy rivalry exists in competition for such honors as the Squadron Pennant and other awards for athletic, military and academic achievements. Officers of equal rank from the three Services are in command of each squadron, but care is taken that no squadron is identified with any particular Service and of course the officer cadets of all three Services are intermingled.

Physical education is an important part of the curriculum at CMR and is pursued through an instructional program, intramural sports and inter-collegiate competition. The instructional program includes physical conditioning and instruction in the fundamentals of a variety of sports. The intramural program affords an opportunity for all officer cadets to participate in a variety of both team and individual sports in competition between squadrons. In the intercollegiate program a total of 14 major and minor sports are included in a schedule that keeps approximately half of the officer cadets actively engaged in athletics from September to June.

The College is a member of the Ottawa-St. Lawrence Conference of the Canadian Intercollegiate Athletic Union, which has a membership of nine colleges and universities. Last October, CMR literally ran away with the OSLIAA track and field championship,



CMR cadets intently observing a chemical experiment. (PL-108810)

proving conclusively the value of physical fitness and training.

Hockey is probably the most popular sport and competition to merit a place on the representative team is always keen. It has become a tradition at CMR to meet the University of Middlebury, Vermont, in a home and home series which adds international spice to a highly exciting spectacle.

To the extensive playing fields of the college has been added a truly magnificent Sports Centre which houses under one roof a large gymnasium, skating rink, swimming pool, theatre and cadets' lounge, together with ample dressing and shower facilities.

THE MILITARY training program at CMR is similar to that given at the other two Colleges. Officer cadets receive from one or two lectures per week in Military Studies. These lectures are given by Service staff officers who also hold appointments as associate or assistant professors expressly for this purpose. No attempt is made here to segregate officer cadets by Service. The endeavour rather is to make them tri-service conscious by instructing them in knowledge of each of the three Services.

Each of the three cadet years has at least one hour a week of drill under the vigilant eyes of the Regimental Sergeant Major and his staff, all of whom are serving members of the famous Royal 22^e Regiment.

Every Thursday afternoon a lengthy wing drill rehearsal is held in anticipation of the Commandant's parade which is held on the following Saturday morning.

The bulk of the military training peculiar to each Service is acquired during the summer months. This training is provided at sea or ashore with the Navy, in the air and in air stations with the RCAF, and in the various corps schools and camps of the Canadian Army. The summer training program is carefully organized, with examinations at the end. However, since there is a good deal of variety and new experience involved in this program, it affords a welcome relaxation from the arduous academic term.

THE DEMANDS on the officer cadet's time are formidable. In an average week, he attends classes or laboratories for seven hours a day. Compulsory sports take up two hours on three different days, and compulsory study from three to four hours nightly. Saturday morning is devoted to an inspection parade, tutorial classes for officer cadets found to be weak in their



The trumpets, bell lyres, cymbals and drums of the CMR cadet band await the downbeat to make a joyful noise. (PL-114663)

academic studies, and more sports. Short leave is allowed Saturday afternoon and evening, and on Sunday after church parades until 6:30 p.m. For those who do not choose to leave the College for such leave periods, a first-rate film is shown on Saturday evening in the theatre. This is usually followed by dancing in the cadets' lounge, young lady friends being permitted in the College until midnight. Each dormitory block has a TV room where programs may be enjoyed within carefully regulated hours.

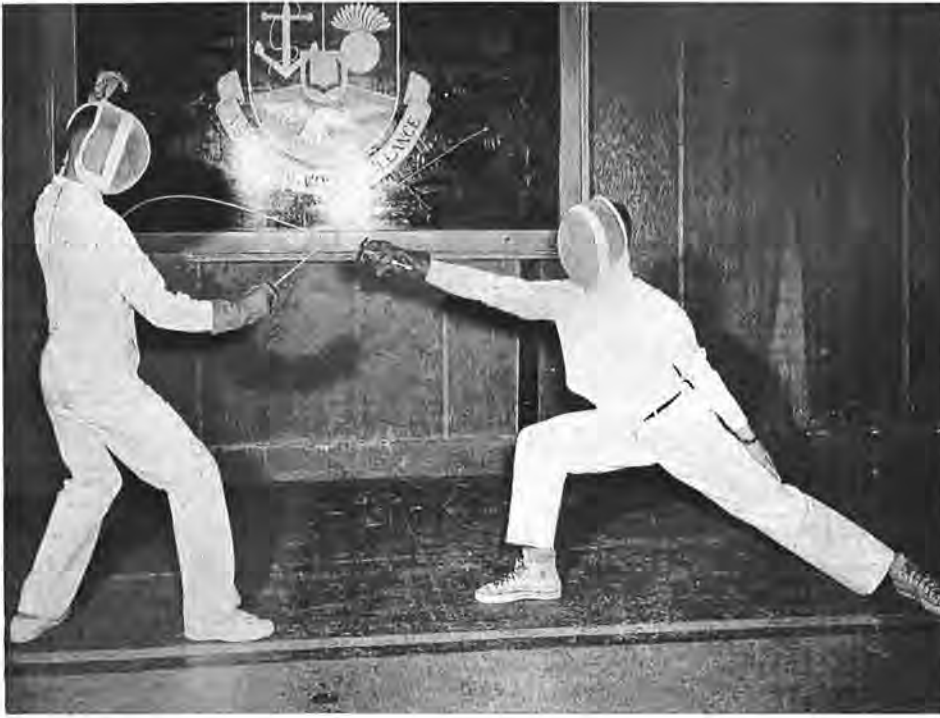
Such occasions as the Winter Festival Ball and the June Graduation Ball are gala affairs which are planned and prepared for months in advance by the officer cadets themselves, with some advice on the part of their Mess monitor, one of the officers on the staff.

Somewhere, somehow, time is found to publish a monthly paper entitled *Le Rempart*. This journal is remarkable for its content of English and French language articles, poems and other features. It is not uncommon to find such features written in an officer cadet's second language. *Le Défilé* is the yearbook of College Militaire Royal de Saint-Jean, and is an elaborate production dedicated to the graduating class. Other activities such as the Photo Club, Music Club and Chess Club have their devotees. A skin diving club has been proposed and already the appli-

cations are coming in for membership. Indeed, it would seem there is no limit to the capacities and energies of these keen and intellectually curious young men.

LEADERSHIP TRAINING is of paramount importance in the development of a future officer. Officer cadets at CMR are chosen in the first place because they show some aptitude for leadership. Every opportunity to develop this potential, through example, lectures and films is employed. But in the final analysis, leadership can best be learned by practising it. All second year officer cadets hold positions of responsibility which are awarded on the basis of merit. A wing headquarters consists of a Cadet Wing Commander, his Deputy, a Cadet Wing adjutant and a Cadet Wing Training Officer. Similar positions are established for each of the three squadrons but with corresponding lower "ranks".

In the performance of their duties these seniors virtually run their own affairs. They enforce the college standing orders, carry out inspections and ensure punctuality and attendance. They are invested with powers of minor punishment such as the running of "circuits" and the imposition of additional duties. Serious cases are referred to the Squadron Commanders and all awarded punishments are reviewed by



Touché! An officer cadet at College Militaire Royal breaks through the guard of his opponent. (PL-108904)

them. Officer cadets are considered to be on their honour at all times, and if told to place themselves on charge, they will unflinchingly do so. The system works remarkably well and cases of a serious nature are rare indeed.

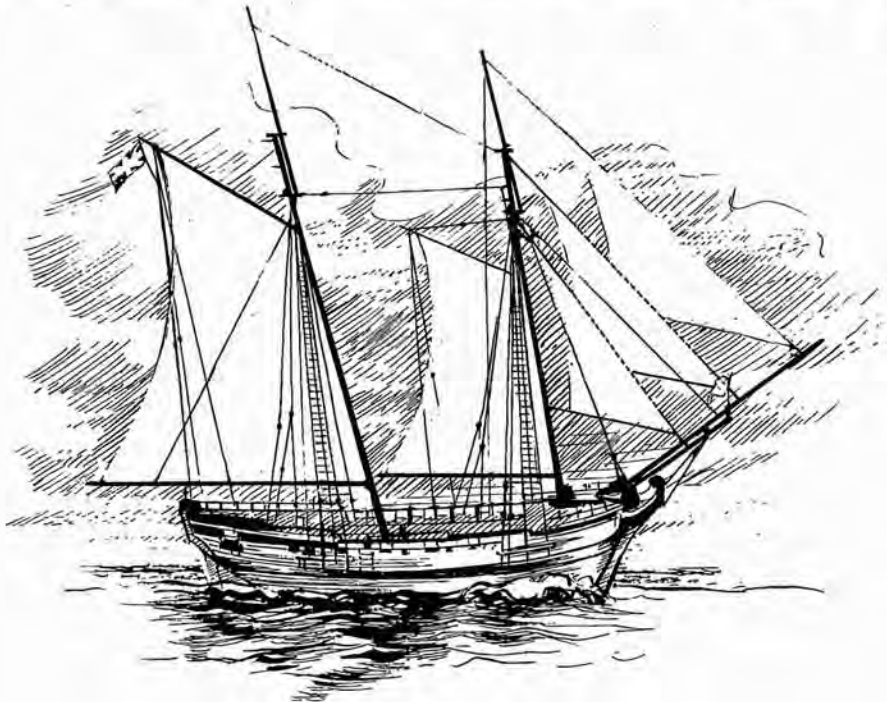
All the above mentioned intensive training is in anticipation of the great day of graduation, when diplomas and prizes are awarded the successful second year officer cadets. This colourful occasion is always held outdoors toward

the end of May or at the beginning of June. There is a tradition at CMR that rain has never marred a graduation ceremony. Certainly, last year's exercises could not have been held under better conditions as the first heat and sunshine of a late spring coincided with the all important day. The colour of the academic robes, the resplendent uniforms of high-ranking officers and the scarlet tunics of the graduating class together made up an unforgettable

scene. It is small wonder that CMR graduates who have gone on to complete the course, acquiring their degrees and commissions, still look back nostalgically on the college as an Alma Mater.

WHATEVER the future holds, College Militaire Royal de Saint-Jean has amply demonstrated its worth. Some 338 officer cadets have graduated from its classrooms and the academic records achieved at RMC invariably include a representative number of CMR trained young men. Fewer than eight years ago the pioneering officer cadets lodged in century-old living blocks that still stand at the north end of the grounds recalling the glorious past. The mud of the construction era has been buried under smooth asphalt. New trees and shrubs have been planted and with thousands of square feet of sod will transform the college into a veritable garden on the shore of the Richelieu River.

Most important of all, however, is the training that each officer cadet has received. He has been taught to pursue the ideals of the College as expressed in its motto—"Vérité, Devoir, Vaillance". He has been taught reverence for the heroes of his country. He has been taught abnegation of his own interests to promote those of his native land. He has learned discipline along with the academic and professional knowledge required of the present day Service officer. In truth he is the best product that our military institutions are capable of turning out and certainly one of whom the nation can be deeply and patriotically proud.





THE COLUMBIAS' claim to the tidiest motor cutters in the Royal Canadian Navy has encountered a certain amount of scepticism on the part of a West Coast frigate, the *Sussexvale*, commanded by Lt.-Cdr. H. D. Joy. Her sailors feel that the *Sussexvale's* boat, even if not the most modern, is beyond all reasonable doubt the most colourful.

The colour scheme, the personal choice of Captain E. T. G. Madgwick, Commander Fourth Canadian Escort Squadron, was developed during this year's cruise to the South Seas, New Zealand and Australia, to distinguish the boat of the senior ship.

The canopy is light grey, the decks are mahogany stained, the boat has white boot topping and wash-strake, red bottom, and gilded quarter-badges, dolphins and boat badge. The hull is jet black. The *Sussexvale* is grateful to the USN at Pearl Harbour for the canvas curtains and to the Royal New Zealand Navy in Auckland for the brass deck fittings.

So pleased are the *Sussexvale's* sailors with the transformation that they have dubbed the motor cutter "Black Magic".

Credit for the smart appearance of the boat goes to Ldg. Sea. C. A. Fancourt and AB F. C. Mitchell. (E-61381)

Overleaf-Ten Years of Naval Aircraft

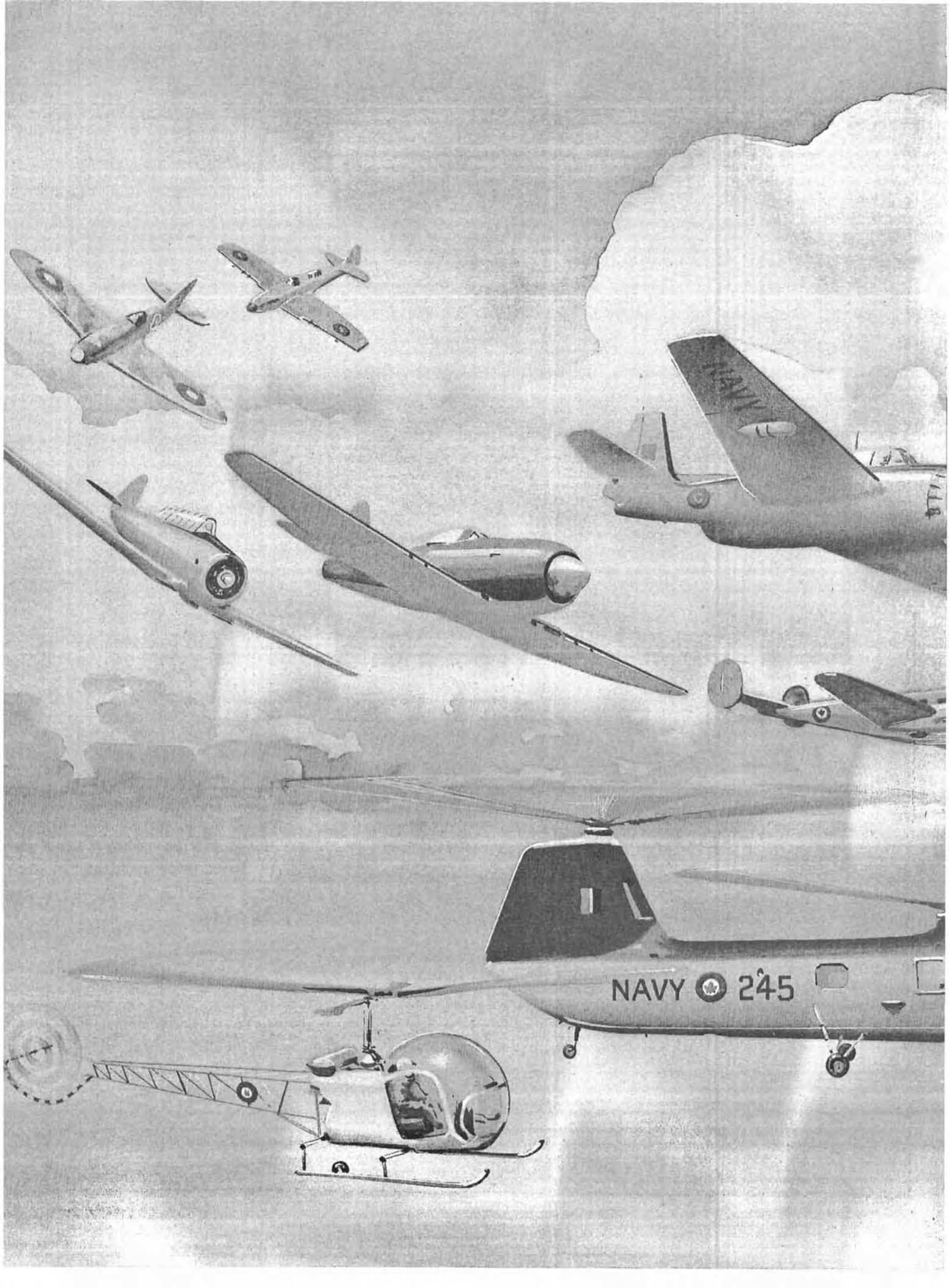
The two centre pages of this joint issue of *The Crowsnest* and *Our Navy* show the types of aircraft which have been flown by the Royal Canadian Navy during the past ten years.

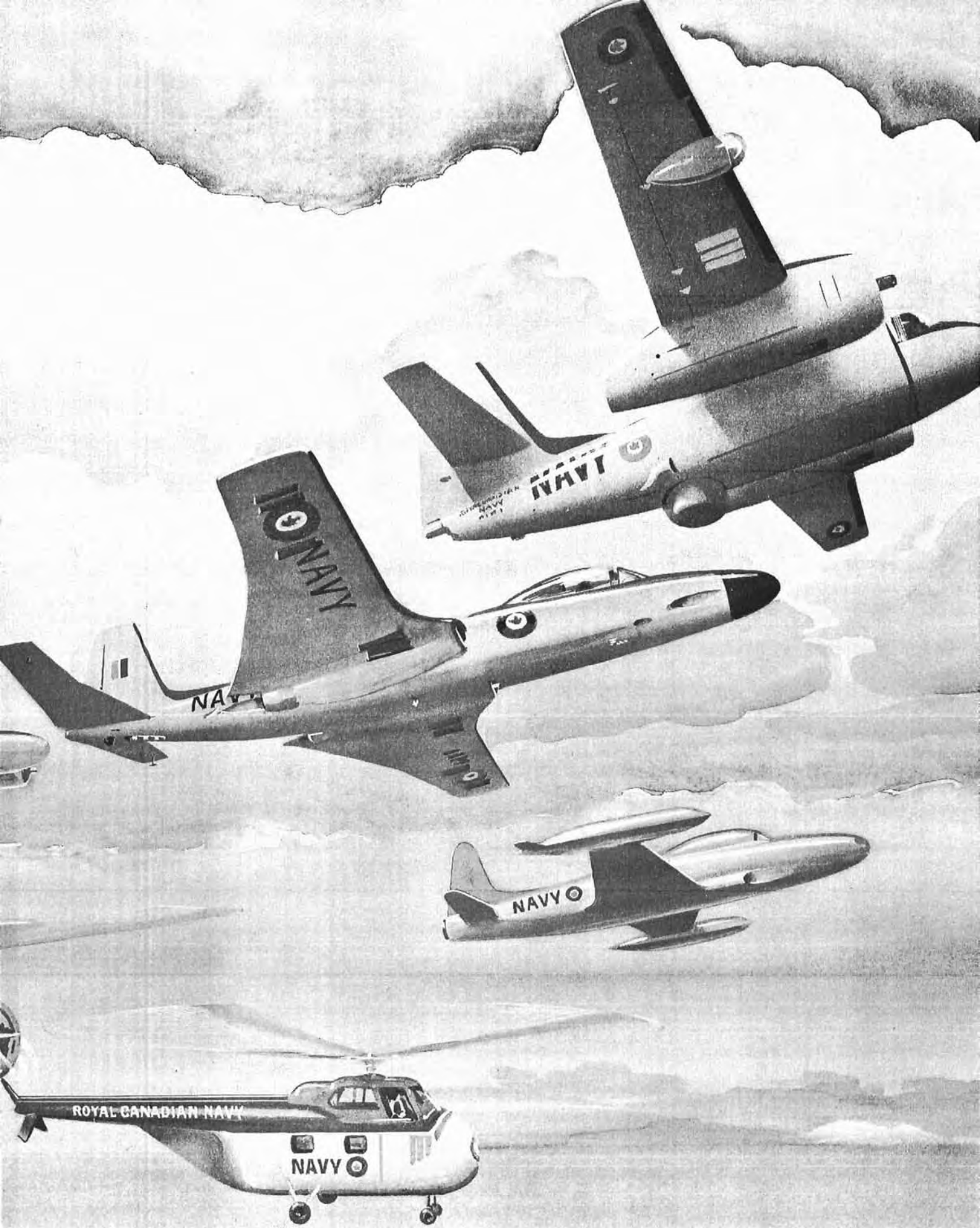
The picture also serves as a salute to the tenth anniversary of *Wave-Off*, the Royal Canadian Navy's flight safety magazine, which first began publication in 1951. The picture appeared on the cover of the tenth anniversary issue.

Because *Wave-Off* is an in-service publication with a message directed to a specific group—those who fly and maintain the Navy's aircraft—it does not come to the attention of the public. Despite this lack

of a critical audience, it has maintained high standards in content and format, as a result of the joint efforts of the Inspectorate of Naval Flight Safety and the Naval Art Section.

Following the line of flight around from the left, we have the *Firefly*, *Seafire*, *Harvard*, *Seafury* and *Avenger* (top) and then the planes at present in service, the *Expeditor*, *Banshee* all-weather jet fighter, the *Tracker* anti-submarine aircraft and, below them, the T-33 trainer. The helicopters in the lower portion of the picture are the Bell HTL, Vertol HUP and Sikorsky HO4S-3. The five planes at the upper left are no longer in service with the RCN.







A typical classroom scene at the "Prep" School. A class of Branch Officer candidates listens to instructor Sub-Lt. K. W. Hilton. (E-59710)

'PREP' SCHOOL

"Every French soldier carries a field marshal's baton in his knapsack."

THE LITTLE CORPORAL, Napoleon, to whom these words are attributed, expressed a similar thought when he said his maxim was "One's career lies open to one's talents," without distinction of birth and fortune.

The Royal Canadian Navy holds in practice that ability must be recognized and that the qualities of leadership, intelligence and all-round efficiency must not be wasted.

One of the greatest stumbling blocks to advancement in this scientific age is lack of education. For this reason, the Navy reiterates again and again the advice: "Stay in school".

However, it is not always possible for youths to complete their high school training, despite superior intelligence and learning ability. The Navy endeavours to seek out, early in their career, sailors in this category and offer them the education which will open to them new avenues of service and advancement. It will give them the education they need to qualify for university entrance and it will subsequently pay

their way through university under the College Training Plan.

To receive this college training, a sailor must be under the age of 25 years, but this does not mean that the door to commissioned rank is closed to men with long experience in the Navy. To chief and petty officers who have demonstrated officer-like qualities through the years, the Navy offers a short but enriched academic course to prepare them for commissioned rank as branch officers.

The academic training for both the younger group and the chief and petty officers is centred in the Preparatory School at HMCS *Naden*, Esquimalt.

The "Prep" School, as it is called, has for each group a separate approach, syllabus, regulations and pedagogic philosophy. Yet the whole training throughout "Prep" School is united in its common goals of higher education, leadership, service to Canada and the encouragement of continuous self-improvement.

The school is housed in two buildings at *Naden*. It is an important part of the Academic Division of the Fleet School. Here, under the experienced direction of Cdr. R. S. Martin and his staff of nine officers, men from the Fleet receive their first concentrated training in the fields of academics and leadership. All of the instructors are highly qualified teachers; many have years of post-graduate work, research and other specialized training behind them. The majority have sea experience and understand well the needs, demands and rewards of a naval career.

Every mid-January, a group of sailors arrives at the "Prep" School. A typical group may number 50; facilities exist for as many as 60. Each young man in such a group has as a result of screening, interviews, psychological tests and selection by a board, been deemed worthy of a chance to attempt to qualify for the College Training Plan. He is 24 years of age or younger, medically fit and bright. His previous education has ranged from grade eight upwards. In mid-January he embarked upon an intensive eight-month course in six subjects (English, French, mathematics,

By
Lt.-Cdr. Douglas J. Williams

physics, chemistry and social studies) with the object of taking the Junior Matriculation course in preparation for the British Columbia supplemental examinations in the following August.

Once the sailor students have completed the joining routine with its photographs, lectures, the issuing of books and equipment, the JMCs, as they are immediately known in and around "Prep" School, are hard at their studies within 24 hours of their arrival.

EACH DAY at "Prep" School starts at 0730, or earlier, when they polish and brush up ready for morning divisions. These JMC candidates, together with Senior Matriculation and Branch Officer counterparts, form a company on the parade ground—and a smart one at that! The highest standards of conduct, deportment, leadership and officer-like qualities are demanded of all "Prep" School candidates during every moment of their stay. They are, to this end, under constant surveillance and guidance by both the instructors of the "Prep" School, and the officers and senior men of the Royal Canadian Naval Barracks. A good reputation has been earned in the past and the newcomer senses it immediately and strives to maintain it.

With short breaks between 50-minute lessons and with an hour and a quarter for lunch, the candidates work in the classrooms and laboratories until 1500 throughout the week. Then comes the daily ration of sport at the gymnasium, on the playing fields or in the pool.

Great indeed is the enthusiasm. The appeal of a fast game of volleyball, waterpolo, or basketball is not to be minimized after a long day of study at a desk. As a result, although the amount of time available for sports is perforce limited to these daily hours and occasional inter-divisional sport in the dog watches, the standard of agility, athletic performance, good posture and good health is high. "Prep" School sports and the team spirit it engenders are well known in the Barracks, as is the morale it helps produce.

Each evening, when supper is over, and an hour of rest and relaxation has slipped by all too quickly, the JMC candidates return to the "Prep" School for supervised evening study which lasts from 1900 to 2200. This evening work, together with week-end work, either in the "Prep" School or privately in their cabins, gives students an average of 20 hours of study a week, over and above the normal working five-day week.

Married candidates are allowed to live ashore with their families. During the terms when evening study is com-

pulsory, these men, like the rest, have to return to "Prep" School by 1900 each evening. Monday to Thursday inclusively.

Each term has its mid-term and end-of-term tests and examinations. These results, in conjunction with a careful analysis of the study log (a book which shows week by week the amount of time put in on each subject) make assistance, direction, and remedial exercises particularly effective. Where it is felt that a willing candidate can benefit from extra help in the early stages of his stay at "Prep" School, private tutorials are arranged.

SINCE THE ROAD ahead of all JMC candidates is extremely demanding, the highest standards of academic achievement must be sought. There is little room for sentimentality. For the successful JMC candidate, a ten-month

preparation period for his senior matriculation will follow, then a four-year university course and after that many professional naval examinations, which daily are becoming more and more technical and difficult.

Only those who can master the basic intellectual disciplines at the JMC level can be allowed to remain under these circumstances, and even they must measure up to high standards in leadership and those other qualities so necessary to an effective service officer. As a result wastage must occur. Of the 51 JMC candidates who arrived in "Prep" School in mid-January 1959, 25 graduated.

These 25 were joined by four men from the Fleet who had been specially selected in view of their previous record and schooling. Then after a Fleet Selection Board, a period of well-earned



Senior staff members of the RCN Preparatory School in Naden; Front row, left to right, Lt.-Cdr. D. J. Williams, author of accompanying article; Lt.-Cdr. C. W. Montgomery; Cdr. R. S. Martin, Command Educational Officer and commanding officer of the "Prep" School; Lt.-Cdr. D. J. Hamilton, and Lt.-Cdr. R. K. Sparks; back row, Lt. R. N. Sauders; Lt. B. McNally-Dawes; Lt. V. H. Neate; Sub-Lt. K. W. Hilton, and Lt. E. R. Taylor. (E-59705).

leave and a further period of change, if not relaxation, participating in naval activities at the Pacific National Exhibition, the men returned to "Prep" School in mid-September. Now they began a ten-month period of intensive study, this time for the British Columbia Provincial Senior Matriculation examinations in June of the following year. The subjects of study are English (literature and composition), French, physics, chemistry and mathematics.

The life of the SMC candidate is similar to that of his junior counterpart in JMC. These are several noticeable and important differences however. Evening study under the supervision of an instructor at "Prep" School is no longer compulsory. By this time they have been taught how to study and have developed a certain degree of intellectual self-discipline.

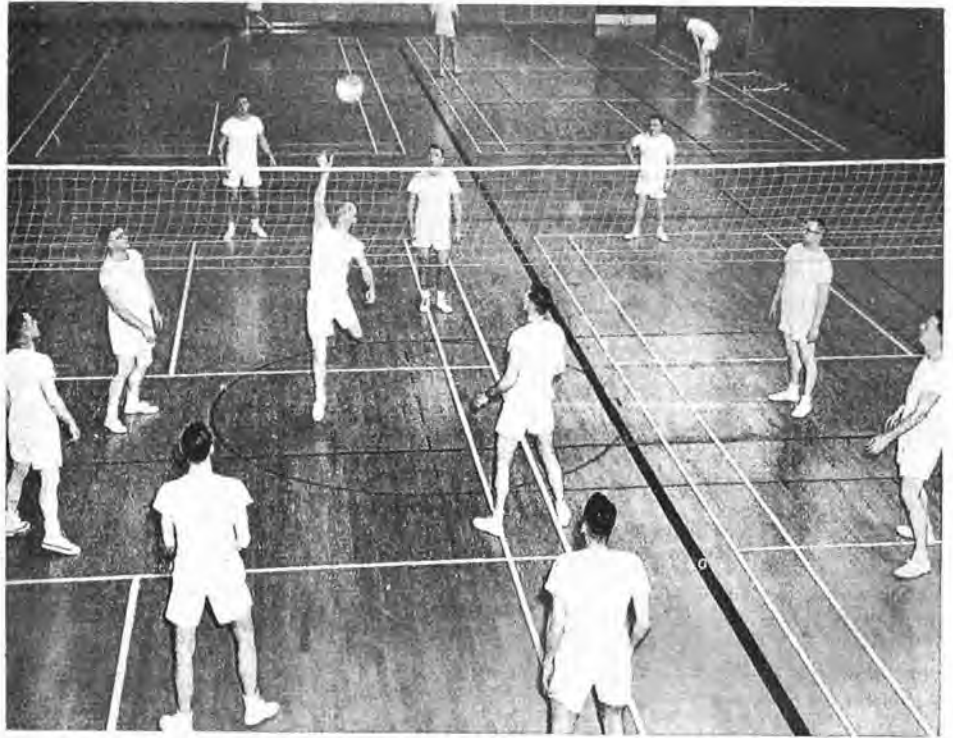
These men are highly motivated. They realize the opportunity that lies ahead of them. Even though they did leave school in the eighth, ninth or tenth grades and joined the navy as ordinary seamen, they can still get to university; they can still become officers. Few need to be reminded of this by the time they have entered the ranks of the SMC. They can, and do work privately, though facilities are always available for them in the evenings at "Prep" School, if they wish help and guidance.

The approach and attitude of the instructors undergo, by design, a noticeable change too. Since these young SMC men will shortly be going to the University of British Columbia, an adult seat of learning, they will have to be prepared to stand firmly on their own feet scholastically. At university there is no spoon-feeding, no cutting up the intellectual fare into small morsels and helping each individual digest them one after the other.

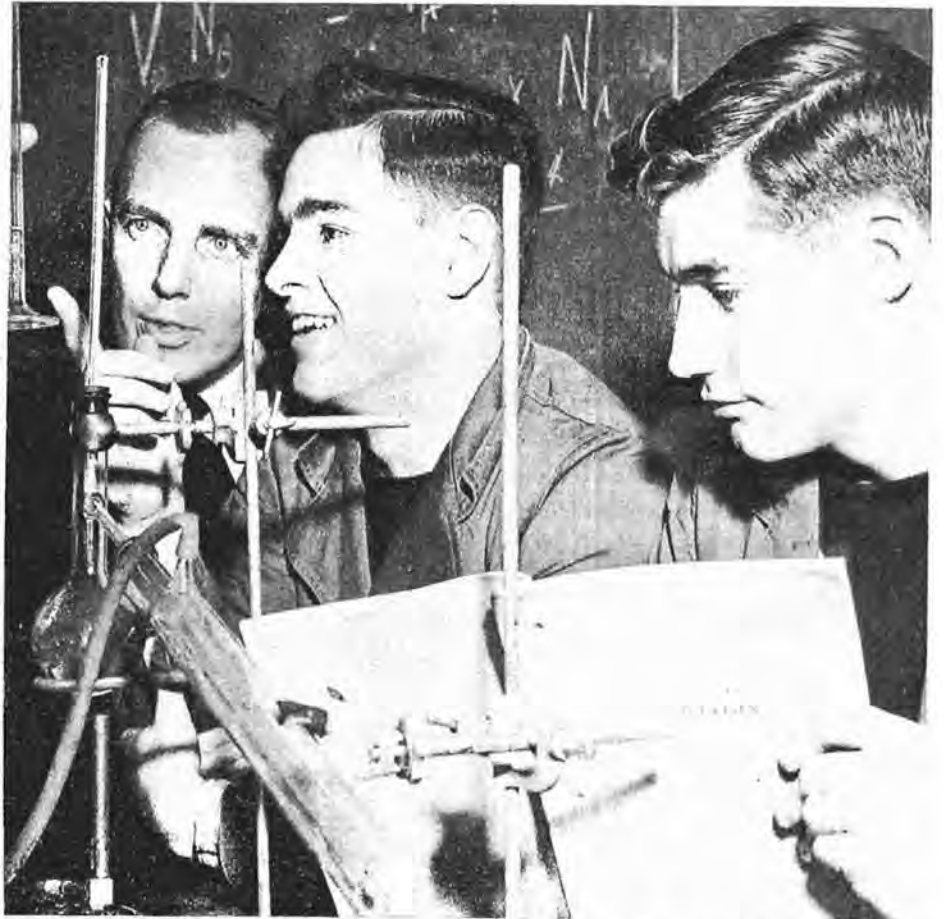
At the SMC level the lessons take on more the shape and style of the university lecture. In this way the SMC candidate is made to stand more on his own feet and is thus more likely to do well in the years which lie ahead.

Both the SMC and JMC candidates have set periods of leave at Christmas and in the spring; they participate in the normal activities of the ship and stand their duty watches. Some of them, who are well ahead with their studies and can thus afford the time, play soccer, softball and rugby for Command and local teams. Each course organizes social events to which wives or lady friends are invited.

AS A RESULT of 18 months' conditioning at "Prep" School, the men who graduate at the end of their SMC are well on the way to shaping up as



A recreational program contributes both to the relaxation and physical well-being of students at the "Prep" School. Branch Officer candidates play a game of volleyball in the Naden gymnasium. (E-59707)



In the chemistry laboratory of the "Prep" school, two senior matriculation candidates, with their instructor, Lt. V. H. Neate, conduct an experiment. The students are Ord. Sea. William Ross, and Ord. Sea. Gary Dufour. (E-59709)

future naval officers. When they reach the University of British Columbia in the following September they are ready to benefit from the opportunity much more than the average young man straight out of high school.

Following a Fleet Selection Board and the successful passing of their British Columbia senior matriculation examination, with average in mathematics and science of not less than 60 per cent and an over-all average of not less than 60 per cent, the candidates are then promoted to cadet. They may then select a faculty of their own choice at the University of British Columbia, though in every case a minimum of two years mathematics and two years science is mandatory. Their full pay and allowances continue during this four-year university period, the rate being set at the highest rank and trade group which they have gained during their service on the lower deck. Petty Officer Second Class, trade group four, is the upper limit. All scholastic fees are paid by the Crown and full medical-dental care is provided.

During the long summer vacation the ex-"Prep" School candidates, now known as College Training Plan cadets, fall in line with those cadets from the Service Colleges, the Regular Officer Training Plan Cadets ROTP. They move to Esquimalt and spend most of the summer under intensified naval training, ashore and afloat. Time is set aside for annual leave before they return to their university studies in the fall. During the full university term they attend weekly drills and instruction at the Vancouver naval division, HMCS *Discovery*, and there they are carefully watched and guided by permanently appointed naval officers specifically assigned to their care.

Thus after a further four years of university and summer naval training, the successful cadets graduate with an engineering, science or other honours degree and continue their career in the Royal Canadian Navy as acting sub-lieutenants.

WHAT OF these older men whom you see at "Prep" School, and petty officers who are so outstanding in their appearance and bearing? These men, the cream of the NCOs of the Fleet, are under training to become commissioned as branch officers. Highly skilled professionally and outstanding in the qualities of leadership, they have been under observation for some years and now, after a Fleet Selection Board, they have come from various ships and establishments of the Royal Canadian Navy to complete an intensified eight-month course of liberal education.

These men, trade group four chief and petty officers long in the service, need very little further technical training at this stage. What extra they are to get will come later when they are commissioned. What they do need however, is an opportunity to make up for a lack of basic formal education in some areas, to broaden their minds with a sound liberal approach such as they would get at one of the better universities, to think accurately and independently and above all to express themselves clearly with their pen and with their voice.

Their course, the Branch Officer Candidates' Educational Course, is built up of six subjects. Each subject in addition to its own value as an intellectual discipline, is geared to effective written and oral communication. Each subject is so taught and handled that it affords its share of opportunity to the instructor to improve the student's power of speech and writing, and also to sow the seeds of continued self-education in carefully prepared soil.

OFFICERS' RANK ATTAINED BY 23

Twenty-three members of Branch Officer Candidates' Educational Course, No. 3, graduated on June 2. It was the end of eight intellectually active and stimulating months; it was the beginning of a new naval career as Branch Officers. All 23 have been promoted to the rank of Acting Commissioned Officer.

The curriculum embraced six subjects: mathematics, science, English literature, history, political geography and communication. Extra-curricular activities included participation in a public speaking contest sponsored by the Victoria Toastmasters' Club. Out of 47 entrants, CPO P. B. Hunter won second prize and CPO E. B. Irwin won third prize. Other activities included visits to the provincial legislature, the art gallery and the Dominion Meteorological Observatory.

One hour a day was devoted to physical exercise and involved such sports as badminton, squash, volleyball, and a special form of branch officer candidates' basketball known only as "mayhem ball."

CPO C. G. Morris finished the course with top honours, with an aggregate mark of 87.5 per cent. Close behind were CPO R. W. Estes and PO Frank Stafford.

Following special leave, 18 of the graduates will go to *Cornwallis* for a divisional officers' course and thence to their respective appointments. The other five will arrive at *Cornwallis* August 14.

The candidates give many lectures in all their subjects. This gets them on to their feet and talking. Both the manner of speaking and the merits of the content are continuously under searching criticism. Recordings and playbacks of reading aloud, debating, stump-speaking, committee work, play-reading, wrangling, argument and discussion are features common to all their studies.

The candidates, by both precept and example, are taught to seek out accurate information for themselves. A great deal of their lecturing involves advanced and discerning research. Facts, which for so many years have been their most important criteria in their trade and technical approach to the navy, now take a position of slightly less prominence. Facts are still important, but the premium set upon them is not so great as to leave no time for the development of the critical faculty, the ability to reason, to select, to weigh, to consider and to decide. Discernment in all things, in language, ideas, manners, in living, discernment in every phase of human intellectual and social activity, best sums up the aim of the course.

The third BOCEC recently completed training and graduated on June 2. There were 23 candidates, all of whom were successful.

The subjects include mathematics, modern science, English literature, history including the development of Canadian government, oral and written communication—and political geography. Once into the swing of these subjects the branch officer candidates get a great deal out of them and put a great deal into them. The qualities which brought these men from seamen with but seventh, eighth or ninth grade educations to first class non-commissioned officers at the top of their trades, now result in work that is refreshing in its enthusiasm, reassuring in its maturity and sound judgment, and above all satisfying to the instructor in its intellectual modesty and the eagerness with which the truth of matters is sought. No university could wish for more.

A feature of the course is the inclusion of guest speakers. Good speakers, experts in their fields, are invited to address BOCEC candidates. They come from the services, industry, universities; some are world travelers, others have been engaged in specialized government and United Nations service. Visits to factories, observatories, centres of art and culture are also arranged, usually in the evenings. Whenever possible the invitations are extended to the candidates' wives. These branch officer candidates, too, have their social program.

On graduating in June, and for the majority, subsequent promotion to the rank of commissioned officer, not only they, but also their wives and families, have made much of the necessary adjustment in their outlook and way of living.

DURING the first term (October until Christmas), evening studies at "Prep" School are compulsory. From then on they study privately, on average 30 to 45 hours per week over and above the full working week.

Most of the candidates from the East Coast and central Canada elect to live in motels and auto courts, a number of which lie close to the Barracks. Many live in the same one; their children attend the same schools, the wives enjoy one another's company and soon discover that the problems are mutual, not least the family adjustment to father's intensive studying. Great attention is paid to every facet of family welfare, for it is the basis of good morale and effective continuous study.

Like their junior counterparts in JMC and SMC the branch officer candidates share the ship's duties and responsibilities. They take part in many ceremonial and color guards. In most cases, after a short indoctrinatory period, one

of their own group acts as the officer-in-charge, complete with cutlass when appropriate. Both on and off the parade ground no opportunity is missed to give each candidate the maximum practice at leading.

As the course advances, the stress is shifted more and more toward a more officer-like regimen. Within the school itself privileges more befitting officer status are gradually introduced in the final term, privileges which have been won by constant high performance, both in class and out of it. Extra lectures and information on such subjects as messages, naval procedure, official correspondence, welfare, divisional work, promotion, future trends and traditions are insinuated into the course to prepare them for the future.

The men have their own planned physical and recreational training program which takes place at 1500 to 1600 Monday to Thursday inclusively. It includes not only participation in a wide variety of sports such as badminton, squash, volleyball, basketball, bowling, swimming, etc., but also instruction in coaching, organizing, refereeing and officiating in these sports as well as in track and field events, softball, soccer, swimming meetings, regattas, etc.

With the third and final examination completed in June, most of the BOCEC candidates go on leave and are promoted to commissioned officer. A few have further short professional courses to take and the occasional one a waiting period until a vacancy in his specialized field occurs. By November of the year of graduation, the vast majority are proudly wearing their new golden stripe. "Prep" School maintains a continuing interest in all its graduates and a special register is kept for just that purpose.

Everyone at "Prep" School has his lounge, locker, libraries, periodicals and reference books. Each has his individual and his corporate pride. BOCEC, SMC or JMC, they all work exceedingly hard.

One swallow doesn't make a summer nor does a few months or even a year and a half at "Prep" School make a naval officer or a complete scholar. Yet all leave it, not only with much more knowledge than that with which they came but, more important still, with a more mature and cultivated outlook. They are now ready for university, the younger ones. They are all better prepared to serve their country and their navy with intelligence, loyalty and affection.



Twenty-three former chief and petty officers this spring completed the Branch Officer Candidates' Educational Course at the Preparatory School in Naden and have been promoted to the rank of acting commissioned officer in the RCN. Here is the class assembled for a graduation photograph. Front row (left to right): CPO D. G. Stevenson, CPO P. B. Hunter, Lt.-Cdr. D. J. Williams, Cdr. R. S. Martin, Sub-Lt. K. W. Hilton, CPO G. A. R. Irwin, CPO K. W. Hamilton Centre row: CPO D. A. Nairn, CPO C. R. Pattison, PO R. C. Binder, CPO J. R. Whyte, PO Kenneth Bullock, PO J. C. Plummer, PO M. N. A. Wilson, CPO R. W. Estes, PO G. A. Irwin, CPO C. Bennett. Rear row: CPO V. D. During, CPO C. G. Morris, PO R. F. Passmore, PO Frank Stafford, CPO C. P. Gumbrell, PO H. P. Hinkel, PO G. C. Waddell, PO A. D. Chaplin, PO W. H. McDermott. (E-61195)



The Royal Canadian Navy's ships and aircraft spent busy weeks searching for and rescuing fishermen in distress from last winter's succession of storms off Nova Scotia. The dragger *Ocean Wave* from Gloucester, Mass., grounded while trying to leave Halifax in early April against heavy Atlantic swells. A naval helicopter plucked the crew from the vessel. (DNS-27247).

THE NAVY TO THE RESCUE

THERE WAS a trace of irony amid the tragedies which accompanies the search and rescue efforts of the Atlantic Command early this spring.

For instance, two helicopters from *Shearwater* had just bounced through a belt of bad weather on March 31 when a message reached them over Copper Lake, a bit better than halfway to Cape Breton, that the big rescue job was off.

They had been supposed to airlift some or all of the 70 passengers of the CNR's *William Carson* from the ice-marooned ferry to the Point Edward Naval Base in Sydney. The *Carson* had been stuck in the ice almost a week off North Sydney on her run from Port-aux-Basques, Newfoundland.

The ice suddenly broke up, and the *Carson* was able to force her way into Mulgrave, N.S. The panic was off. The choppers resignedly turned back into the weather and went home.

By contrast, less than a fortnight later, a helicopter from the self-same *Shearwater* squadron, HU 21, performed

one of the shortest—and swiftest—search and rescue missions in the annals of Canadian naval Aviation.

The dragger *Ocean Wave* tried to leave Halifax early April 12, following a few days of sheltering from the marching Atlantic storms. Heavy swells rolling into the outer harbour, coupled with bad visibility, forced her aground on Little Thrumcap Shoal. The frigates *Cap de la Madeleine* and *La Hullose*, plus the patrol ship *Mallard*, went to the area. The former tried to take the dragger's five-man crew off by boat but the rocks, pounding waves and shallows made this impossible. The ships carried on for local operations, leaving the *Mallard* standing by, and recommending a helicopter take the fishermen off.

At first light the machine took off from *Shearwater* and was over the *Ocean Wave* in moments. The shoal is to seaward of McNab's Island, a stone's throw from the air station. The crew, from Gloucester, Mass., was plucked by winch from the vessel, which was badly

pounded by succeeding tides, though high and dry at low water.

Another mercy mission for the Navy began that very evening. Three members of the RCN Diving Establishment, Dartmouth, were flown by naval Tracker to Quebec to search a thaw-swollen stream near St. Jacques de Montcalm (outside Joliette) for the body of a three-year-old boy, presumed drowned. They returned April 20 to Dartmouth, unsuccessful.

It has been a tragic spring for fishermen on the Nova Scotia banks. A succession of storms ripped relentlessly up the eastern seaboard, leaving three foundered vessels with all hands lost and wreaking genuine distress among others.

Cruel, wintry storms made a desolation of the Emerald fishing bank off Nova Scotia in particular, where a number of vessels were caught.

Ships and aircraft of the RCN and USN joined forces with RCAF Search and Rescue throughout what was technically the first week of spring.

To prevent wholesale disaster, the RCN-USN Exercise Beagle One had to be interrupted so that the warships concerned could help beleaguered fishing vessels caught in the vicious gale of March 21.

The first call that week came from the 68-foot dragger *Musquaro*, crippled and leaking badly that morning about 40 miles off Halifax. The aerial search involved a Banshee initially, then two Trackers plus an RCAF Canso from Greenwood, N.S. HMCS *Kootenay* was diverted and stood by the vessel for 18 hours, until relieved by the Navy's ocean tug *St. Charles*, which escorted her on a painful journey to a commercial harbour tug at Halifax.

Throughout the week, the warships were having their bruises from the 40-foot waves, too, with a variety of weather deck damage resulting. The *Musquaro* incident would have involved two other destroyer escorts, since they were also diverted to help. Both were laboring towards Halifax, each with a hospital case to land. The *Nootka* was so laden with ice—more than 100 tons of it—she couldn't turn off course to help. The *Restigouche*, also iced up, managed to turn away from the run to port all right but wasn't needed when

it was found the *Kootenay* was nearer the vessel. The *Musquaro* limped into Halifax March 23, only to be towed back to port again with much the same troubles the next time she put out.

Meanwhile, three Lockeport fishing vessels were unheard from in the wake of the quick storm. All Exercise Beagle forces began to scour the 120-by-100-mile Emerald banks. Bits of wreckage were sighted and picked up by various Canadian warships. Weather conditions hampered the aerial searching.

The destroyer escort *Algonquin* was having her hands full with the storm-battered *Felix and Florence Hickey*. The *Algonquin* spread oil on the heaving waves and tried three times to take the six crewmen off by inflatable life raft. A perilous night was spent by the *Hickey* people on board their vessel and in the morning, the *Algonquin* was relieved by the CNAV *Fort Frances*. The Foundation tug *Vigilant* eventually came up early on the 24th and towed the *Hickey* to Shelburne, N.S.

The toll climbed to 17 lives, leaving 60 children fatherless in Lockeport, N.S. The full-scale search was reduced March 25. The RCAF maintained aerial

survey, as weather permitted, into the following week, without reward.

Early in April, a fund was established in Lockeport for the relief of the bereaved families. Among the early contributors were sailors of HMCS *Kootenay*, who put up the unusually large sum of \$500 after a welfare meeting. The money was turned over to the manager of the Royal Bank in Halifax along with a copy of the ship's badge, for onward transmission to Lockeport. After 18 hours of standing by the storm-tossed and sore-distressed *Musquaro*, the *Kootenay* sailors had a fair notion of what it takes to be a fisherman on the treacherous Atlantic.

Two other ships which had taken an active part in the search for the fishing craft were quick to volunteer financial assistance to the Lockeport families.

From the RCN's largest ship, the *Bonaventure*, came a cheque for \$1,036—a gift prompted by the realization on the part of the aircraft carrier's officers and men of the terrible ordeal undergone by the fishermen.

The frigate *Inch Arran*, which had also steamed through the thick of the storm in search of the missing men, gave \$100 to the fund.

Machines Gather 'Usage' Facts

A FURTHER, and significant, step in making even more efficient the Navy's supply system began on April 21, when Rear-Admiral K. L. Dyer, Flag Officer Atlantic Coast, officially put into operation the Halifax Data Processing Centre in the Dockyard.

The Centre is an installation of punch-card equipment which will collect "usage" information on the material requirements of the ships in both the Atlantic and Pacific Commands.

Need for such an installation has been dictated by the almost phenomenal growth of material requirements of warships so that they can remain effective in the rapid evolution of naval warfare. For example, Nelson's *Victory* required something on the order of 800 items of stores to outfit her for action at sea, a Second World War destroyer escort required nearly 6,000 items and today's modern *Restigouche* class destroyer escort requires 27,000 items on board to support her operations.

The Navy has roughly the same amount of money allocated for the purchase of material today as there was during the Korean conflict, but prices have risen in the intervening years, as all housewives are aware.

This dollar squeeze demands that the Navy apply the best of modern management methods to expenditures. Material requirements have to be more exactly calculated to ensure their best use, costs must be kept down, yet ships still must go to sea capable of meeting their commitments and able to sustain themselves for long periods.

The Data Processing Centre is one of the steps the Service is taking to meet most efficiently these conflicting aims. It will collect information on material usage from the fleet and from it produce

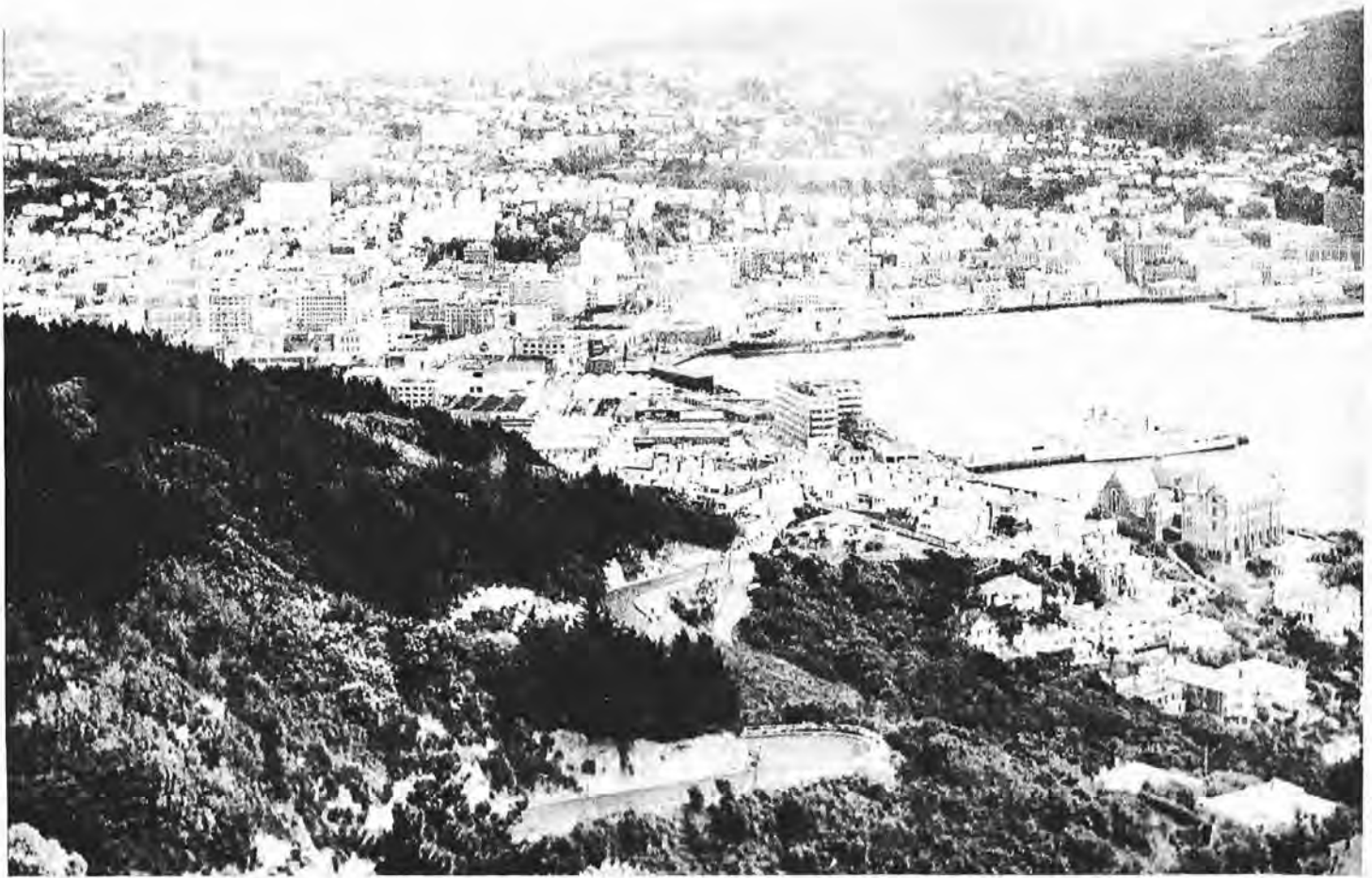
a variety of reports for various naval agencies. The reports will analyse costs, list all material used, list all the equipment fitted in a ship and what they need to make them tick, list items not in stock when wanted, and list items needed but not previously carried.

The reports will provide even more realistic allowances for ships by indicating where some stocks of items should be pruned, others increased.

Officer-in-charge of the Centre is Lt.-Cdr. E. V. Margetts. During the initial stages of getting the Centre underway, he was assisted by I. L. de Carle, civil servant from Naval Headquarters. There is a staff of 27 civilian employees, all of whom are residents of Nova Scotia. Supervisors are J. H. Tillman, Mrs. L. B. Kelly, and G. E. O. Osborne.

Equipment in the Centre is rented from International Business Machines Corporation and consists of 33 machines, including punches, verifiers, sorters, reproducers, interpreters, collators and accounting machines. The Model 604 Electronic Calculator is the only machine of its type in the Maritimes. It performs the calculations for the Usage Control System at the rate of 100 a minute.





Looking down the mountainside to the harbour of Wellington, New Zealand, where the training frigates *Sussexvale*, *Beacon Hill* and *New Glasgow* lie alongside. (CCC-4-678)

VENTURE CRUISE '61

THE 1961 VENTURE training cruise commenced January 9 when HMC Ships *Sussexvale*, *Beacon Hill* and *New Glasgow* sailed from Esquimalt for the South Pacific. Thirty-five *Venture* cadets were embarked, together with a number of naval reserves. Sixteen bandsmen were embarked in the *Beacon Hill*.

Many were making their first journey to sea and it wasn't long after leaving the shelter of Esquimalt harbour that Cape Flattery provided an indoctrination which will long be remembered by the new sailors.

After a rough voyage, the ships arrived at Pearl Harbour on January 18 for a one-day stop before continuing on to the Fiji Islands. On Monday evening, January 23, King Neptune's herald appeared on board to announce the approach to the equator and the arrival of King Neptune the following day. The

King arrived on Tuesday and initiated some 342 tadpoles in his court. Saturday, January 28, was a lost day as the ships crossed the international date line and Suva, Fiji, was reached on Sunday, January 29.

Fiji gave many their first glimpse of a Pacific South Sea Island and, although it was extremely hot, a pleasant two-day visit was enjoyed by all. A bus tour to native villages provided some with an insight into native life on a South Pacific Island. Eighty-five-degree water temperatures invited many to beaches which were protected by shark fences. A reception was held on board the *Sussexvale* for 150 guests.

The next port of call was Waitangi, Bay of Islands, New Zealand where the Canadian ships joined with HMNZS *Otago*, a new Whitby class anti-submarine frigate, and HMAS *Gascoyne*, an Australian frigate, to take part in

the 121st anniversary ceremonies of the signing of the Treaty of Waitangi. This treaty was signed in 1840 and gave all sovereignty to the Queen of England and guaranteed to the Maori tribes possession of their lands. The ships fired a royal salute and were illuminated by floodlighting during the evening.

From Waitangi the ships sailed to Auckland, New Zealand's largest city, for a three-day visit. Sixty members of the ships' companies journeyed by bus to Rotorua, a Maori village in the heart of New Zealand's thermal region, where steam bores and boiling mud holes abound. A challenge for a whaler race for the Hawea Cup was issued by HMNZS *Philomet*. A crew was entered by each ship and two by the *Philomet*. The race was won handily by the *Beacon Hill*'s crew. However, the cup remains in New Zealand for future competitions. The *Philomet* came second

with the *New Glasgow* and *Sussexvale* bringing up the rear.

Upon leaving Auckland the ships separated, the *Beacon Hill* going to Port Taranaki, the *Sussexvale* to Lyttleton and the *New Glasgow* to Dunedin. Sailors who had planned a Mount Cook climbing expedition sailed from Auckland in the *Sussexvale* and, during the trip to Lyttleton, could be seen climbing about the super-structure in full kit in preparation for their assault on New Zealand's highest mountain. From Lyttleton they were driven to the base camp by army transport and prepared for their climb. Weather and ice conditions prevented an assault on the main peak, but several other peaks were scaled, including the second highest. A group of five Japanese women were attempting to climb Mount Cook during this period.

Approximately 60 of the *Beacon Hill's* company were invited to sheep and dairy farms in the New Plymouth area and became farmers for a couple of days. Thirty-three New Plymouth residents saw the RCN in operation when they sailed with the *Beacon Hill* and watched the weapons crews in action. The Bofors fired at four-inch starshells and the anti-submarine mortars fired a pattern of squid bombs.

After these individual visits, the cadets began their pilotage training. The *Sussexvale* and *New Glasgow* cruised along the east coast of South Island while the *Beacon Hill* sailed down the west coast from Taranaki to Milford Sound. After a brief cruise through the Sound, admiring the fabulous scenery, the ship proceeded through Foveaux Strait and up the east coast to Akaroa harbour for a cleaning period before moving on to Admiralty Bay. The *Sussexvale* and *New Glasgow* also stopped in Akaroa and the ships rejoined company in Admiralty Bay. A pulling and sailing regatta was held, the *New Glasgow* winning the pulling and the *Beacon Hill* the sailing.



Younger members of the audience reacted with unfeigned pleasure to an RCN band concert in Pago Pago, Samoa. However, band leader CPO John Mundy felt obliged to take time out to comfort one exception to the rule. (CCC-4-826 CCC-4-830)



The *Beacon Hill* whaler crew made a winning effort during a regatta off the coast of New Zealand. (CCC-4-654)

native villages where ancient tribal dances were performed.

The ships left Pago Pago on April 2 and, after a hot voyage back over the equator, Pearl Harbour was entered for a second time during the cruise on April 10. With the cruise drawing to a close it was necessary to decide a winner of the cruise trophy. The *Beacon Hill* and *New Glasgow* were tied in points awarded for all competitions such as sports, drills and boatwork during the cruise so it was decided that the ships should shoot it out at a pistol match. The *Beacon Hill's* marksmen came out on top and brought home the trophy.

The *Sussexvale* was the scene of a reception for approximately 120 guests, many of these being Canadians working or holidaying in Honolulu. After leaving the sunny shores of Hawaii it wasn't long before cold weather indicated the return to home waters.

Swiftsure Light came into view the night of Thursday, April 20, and those who left 15 weeks earlier as new sailors untrained in the ways of the sea, were returning as shellbacks, well versed in many phases of sea service. During the long periods at sea the cadets were instructed in all departments of the navy, with many hours spent on celestial navigation and seamanship.



A group of Wrenettes visit the *Sussexvale* during a call at Lyttleton, New Zealand. (CCC-4-630)

As well as cadet training, the cruise provided on-the-job-training for many ordinary seamen and valuable experience for old sailors as well.

Their sea training completed, the cadets now commence their flight training before becoming pilots in Naval Air.

The cruise covered 102 days, 72 of those being spent at sea during which each ship steamed approximately 18,000

miles. The tons of food consumed included approximately 18,000 loaves of bread, 9,000 dozen eggs, 5,000 pounds of butter, nine tons of meat and 18 tons of potatoes.

Approximately 10,000 visitors boarded the ships during the cruise, including, in Sydney, a group of Canadian children whose parents make their home in Australia.



Dressed overall in honour of Her Majesty's birthday, three frigates of the Pacific Command presented this scene on the morning of April 21 when they returned to Esquimalt to complete a three and a half month training cruise to Australia and New Zealand. Aboard were 36 naval officer cadets of HMCS *Venture*—most of whom had never before been aboard. From the left are the *Sussexvale*, *Beacon Hill* and *New Glasgow*. (E-60761)

MOBILITY FOR THE FLEET

IN 1959, two important steps were taken by the Royal Canadian Navy to increase the mobility of the fleet.

HMCS *Cape Scott* was commissioned at the beginning of that year as the first RCN escort maintenance ship. She was followed into service that fall by a sister ship, HMCS *Cape Breton*.

These ships, one on each coast, have the heavy responsibility of providing repair maintenance facilities for the various escorts in the RCN, particularly when the latter are on operations away from home port. Thus has the Navy gained in mobility and flexibility, qualities essential to an efficient anti-submarine force.

The "Cape" class ships are neither new nor do they resemble warships at all. They have bluff bows, high freeboard and capacious holds. They are, in fact, modifications of the famous British wartime "Victory" cargo ships.

The repair ships displace 10,270 tons, are 441.5 feet over-all in length, 57 feet in the beam and are propelled by steam (2,500 SHP on one shaft) for a speed of 10 knots. The largest lifting boom in each ship has a capacity of 50 tons.

The *Cape Scott* has served in three navies. She was built in Vancouver for the Royal Navy, the first maintenance

repair vessel constructed on Canada's West Coast. Launched in 1944 as HMS *Beachy Head*, she served in the Far East. In 1947 she was loaned to the Royal Netherlands Navy and re-named the *Vulkaan*. In 1950 she was returned to the Royal Navy and two years later was turned over to the Royal Canadian Navy at Halifax and re-named the *Cape Scott*. In 1958 she was taken in hand for fitting out as a mobile repair ship, the first such vessel in the Canadian Navy.

Into her huge spaces went shop machinery worth millions. A helicopter flight deck was fitted over her stern and a miscellany of other facilities incorporated. Her complement of about 275 officers and men has a high proportion of senior artisans. Even before commissioning, the ship assumed from the dockyard some 300 items associated with her refit.

Cdr. F. J. Jones, of Montreal and Halifax, who commissioned the *Cape Scott* in command, said to his ship's company on the ship's first anniversary (January 28, 1960): "I feel the *Cape Scott* has accomplished everything asked of her and with good measure. . . . I am sure that with me you are proud of the *Cape Scott's* list of 'satisfied customers'."

In her second year, she roamed from the Caribbean to Newfoundland as a unit of the RCN Atlantic Command. By the end of 1960, she had serviced 93 ships, expending close to 20,000 man hours. She made more than 70,000 individual issues from her stock of 23,300 separate stores items, and placed a further 10,000 demands on the Naval Supply Depot for benefit of her "customers."

Her facilities have been afforded destroyer escorts of several classes, frigates, minesweepers, the aircraft carrier, a gate vessel, auxiliary vessels and naval aircraft and even aircraft squadrons.

The *Cape Scott* during this period steamed a modest 17,951 miles during 97 days at sea. However, she spent more than 100 days in secluded anchorages or harbours where there were inadequate repair facilities. In the latter instances she was a maintenance headquarters for ships, a sort of "dockyard without a drydock" conveniently near the areas where warships were operating.

During 1960, the *Cape Scott* spent 10 weeks in Bermuda for WINTEX 60. In the summer months she lay alongside in Halifax, continuing to service the fleet but also providing training in engineering and propulsion for several score of cadets from University Naval Training Divisions.

Cdr. Jones turned command of the *Cape Scott* over to Cdr. Angus H. Rankin, formerly of Vancouver, in August 1960.

In October, the *Cape Scott* was sailed to Shelburne, N.S., there to provide an "alongside haven" for RCN-USN mine warfare forces during the NATO exercise Sweep Clear V. Although she does not normally carry items peculiar to minesweepers, for this operation she did carry repair items for this particular exercise and the ship proved a welcome source of such services as electrical power, diesel fuel and fresh water. Her technical experts were able to give the ships aid in general maintenance and surveys and her divers were busy un-snarl-ling ship propellers fouled by mine-sweeping gear gone awry.

Cdr. Rankin, who was senior officer of the Shelburne phase of Sweep Clear, was prompted to report: "This ship is very definitely paying her way."

The *Cape Scott* was involved in a fleet exercise in November, with Cdr. Rankin acting as a convoy commodore.



Molten metal hisses into a mould in the foundry on board the *Cape Breton*, Pacific Command escort maintenance ship. (E-58765)



Then, on the 21st of that month, the ship sailed for more exercises with the fleet plus a period in Sydney, N.S., as their headquarters ship and repair facility.

On December 16, she returned to Halifax but preparations began almost immediately for her next mission—the 1961 winter exercises, in Bermuda. She sailed from Halifax January 9 almost “loaded to the gunwales” with provisions, material for the ship, vehicles for shore transport and various amenities for personnel temporarily based at Ireland Island in the colony.

Roughly speaking, the organization within the *Cape Scott* tends to fall

within three broad categories. The first embraces all repair personnel and facilities and is nicknamed the “factory.” The second is the supply organization which, working in close harmony with the factory, procures the materials necessary for repairs and also provides the *Cape Scott* with general stores and domestic comforts, such as food, pay and clothing, with minor supply support to other ships. The third category consists of the people who keep the *Cape Scott* herself functioning, steam the ship, run the derricks and boats, bring the ships alongside, transfer parts back and forth, and so on. The functions are inter-

locking to varying degrees but, since the *Cape Scott* is primarily a mobile factory, this article is concentrated on that particular aspect.

An officer of the rank of commander is the Senior Technical Officer (Cdr. E. S. Baker, since July 1960). Directly under him is the Senior Repair Officer, who is the senior technical lieutenant-commander. Responsible in turn to the latter are those in charge of the five main sections of the repair organization, namely, constructive; engineering, electrical/electronic, ordnance and diving.

The Constructor Officer, for example, has seven shops in his domain, including



HMCS Cape Breton (100) is the escort maintenance ship based at Esquimalt. She is similar in most respects to the *Cape Scott* (101), based at Halifax. Note the helicopter platform aft and the heavy handling gear. (E-53746; DNS-34901)

plate, sheet metal, welding, blacksmith, pipe and coppersmith, woodworking and paint shops. All kinds of hull repair and general structural work are done in the plate shop. Its bending rolls will take boiler plate up to three-eighths of an inch thick and 48 inches wide. The drop shears cut thicknesses up to a quarter-inch by 72 inches in width. The sheet metal shop is equipped to handle all types of this work, the amount of material available being the only real limitation. Electrical and oxyacetylene welding, cutting, brazing and aluminum welding are done in another shop. The smithy has the customary tools, forges, slabs and anvils for handwork and its power hammer will take forgings up to three inches in diameter. The pipe and copper smithy handles copper, brass and steel piping and tubing, as well as brazing, bending (12 in.), threading (6 in.), silver and soft soldering. The woodworking shop is capable of any shipboard construction, including boat repairs, cabinet making, etc.

Under the Senior Repair Officer come the machine shop, the foundry, fitting shop and another for internal combustion engine repair. In the machine shop, work up to 20 in. diameter by 72 in. long can be accommodated in the boring mill. Shafting limits are 20 in. diameter by 96 in. length. Gap lathe limits are 56 in. by 96 in. The longest grinder has a 16 in. diameter swing and can handle up to 60 in. lengths.

A pantographic engraver does straight-line lettering for name plates and the like on everything but hardened steel. The foundry has two oil-fire furnaces with a total of 400 pounds capacity. Castings of brass and aluminum are manufactured. The internal combustion engine (ICE) shop repairs and overhauls all types of diesel machinery and motorboat engines.

The Electrical Officer controls the activities of the following repair shops:

- Electrical, which handles all repairs to rotating electrical equipment, including rewinding of class A, B and H types and their subsequent vacuum impregnation and baking;
 - Electronic shop, which can completely repair any electronic equipment fitted in the RCN;
 - Gyro compass shop, which is designed to effect repairs for all the ocean escorts;
 - Sonar shop, which is capable at present of effectively repairing most sets fitted but eventually will be able to handle all major repairs with the exception of those requiring drydocking.
- Cryptographic and teletype machinery can be completely serviced in their re-

spective shops, whilst one of the busiest places in the ship is the instrument shop, which handles repairs from watches to the most complex electronic test equipment. As a further service to the fleet, this shop also carries out repairs to all motion picture projectors.

In the battery shop, batteries are charged, discharged, tested and even completely rebuilt.



Each of the RCN's escort maintenance ships carries more than 23,000 separate items of stores. Neat stowage is essential for small parts, and taking inventory, as in this scene on board HMCS Cape Breton, is no small task. (E-59783)

In addition, the electrical and electronic staffs combine their talents with the ordnance staff to effect complete repairs to gunnery fire control systems.

The Ordnance Officer is responsible for the repair of all modern naval armament and carries 4,000 items of spares to assist in this work. Spaces occupied for this work include homing torpedo test shops, a main ordnance workshop and two ordnance stores. He is also required for the inspection of naval ordnance in ships away from home port, as required. In addition, he also carries out the duties of gunnery officer, which includes training of ceremonial guards

for special occasions and the handling and stowage of the *Cape Scott's* limited supply of explosives.

The clearance divers carry out all underwater inspections, maintenance and repairs, including underwater welding. In addition, they maintain and repair their own diving gear and that carried in ships alongside for services. They have a brand new, RCN-designed decompression chamber for therapeutic treatment of divers who might otherwise suffer from "bends".

Services the *Cape Scott* provides its "customers" are varied. The Engineer Officer can provide steam from zero pressure to 125 pounds a square inch and feed, fresh, and salt (for fire main and sanitary purposes) water. In emergencies, he has 100 tons of fuel oil available for a "top up" of a destroyer escort on an urgent operational mission requiring vital staying power.

The Electrical Officer can provide power at 220 volts (0 to 300 amps) and 440 volts (0 to 600 amps). The Supply Officer can provide ships with meals when their own galleys are inoperative, and with clothing, provisions and general stores in limited quantities. The *Cape Scott* bakery can turn out hundreds of fresh loaves of bread daily. A milk reconstituting and ice cream plant is being installed. Canteen and laundry facilities are available as well.

Medical services include a doctor and staff in an air-cooled compartment divided into a six-bed sick bay, treatment room, operating room, X-ray room, darkroom and laboratory. Its apparatus puts the medical organization in the *Cape Scott* on a par with the latest new construction ships of the RCN. The dental facilities first installed for the winter exercises of 1960 boast modern equipment comparable to the best ashore, including a dental laboratory. Doctor and dentist are available to the rest of the fleet.

The ship carries two aluminum landing barges (LCVP) and four motor boats, all of which can be loaned to customers who can man them.

When in high gear, the factory can handle three ships at a time, two alongside and the third at anchor nearby. The factory personnel are organized in three watches and are chief petty officers or senior POs in almost every case.

Ships normally come alongside for five-day periods of self-maintenance and an "arrival conference" is held first thing to ensure best use of the *Cape Scott* talent and facilities. "Work orders" are raised on all repairs to ensure their timely scheduling, completion and recording of the work done.

Productivity is measured by man-hours, averaging out generally to 500 per ship on the five-day cycle.

A 40-hour week is considered the norm for a man doing similar work afloat or ashore. The *Cape Scott* factory people invariably chalk up many more hours, since many repairs are so urgent that they must work round the clock so ships can return to important operational missions. On one occasion in 1959, when the *Cape Scott* had set up shop in a very remote bay of Newfoundland, distractions were so few that invariably personnel completed jobs in hand before laying down their tools. The result is that the work of most skilled men over the year averages out at 45 hours a week although sometimes it has been as high as 65 hours for certain periods.

It is obvious that the *Cape Scott* can undertake just about any repair from fixing a precision timepiece to changing a ship propeller: truly a dockyard in miniature. Her many other facets and the sound workmanship she provides have not gone unnoticed by the ships of the fleet judging from the fat file of appreciative messages and letters on board.

ALMOST everything that has been said about the capabilities and functions of the *Cape Scott* applies to her sister ship, HMCS *Cape Breton*, largest ship in service with the Pacific Command of the Royal Canadian Navy.

The *Cape Breton* is commanded by Cdr. M. F. Oliver, who has been with her since her commissioning on November 16, 1959 as an escort maintenance ship.

Before she began her present tasks, the *Cape Breton* served in several roles. Built by Burrard Dry Dock Company, Limited, North Vancouver, and completed early in 1945, she served with the Royal Navy under the name *Flamborough Head* until 1953, when she was returned to Canada, and the Royal Canadian Navy. At that time she was given her present name.

Between early 1953 and June of 1958, the *Cape Breton* was a floating training establishment for naval technical apprentices at Halifax.

The ship left the Atlantic naval base in June 1958 for Esquimalt, via the Panama Canal, and joined the Pacific Command on July 31.

Soon after, she was paid off and placed in the hands of HMC Dockyard for an extensive refit. The work included the addition of a large helicopter platform over the quarterdeck, and the



PO William McLeod, left, in his "other" library on board the *Cape Scott*, looks over a "Hornblower" book with Ldg. Sea. William R. Bissett. Not only does PO McLeod look after the ship's technical books, he also maintains the recreational library voluntarily on his own time. (CS-605)

DOUBLE-DUTY LIBRARIAN

What does HMCS *Cape Scott's* librarian do in his spare time?

He runs another library.

PO William McLeod is custodian of some 32,600 official drawings and 800 reference books carried in the mobile repair ship for use and study by the Navy's technical personnel serving afloat. Not satisfied, he took on another library voluntarily in June 1959. In a nine-by-five-foot compartment in the ship he looks after nearly 700 books, fiction and otherwise, plus Navy educational texts and handy reference collections.

When the ship is in Halifax PO McLeod opens the library in the noon hour only, but away from home he is in business an hour or so at night as well, depending on his commitments.

PO McLeod's deep regard for literature is responsible for him taking this "busman's holiday".

"I've always maintained that a book is a good friend," he says.

He has managed to introduce his "friends" to many of his 250 shipmates. The weekly flow of books averages 120 in home port, 150-200 a week away from home.

In a period of three months, PO McLeod lent 158 volumes of fiction and 170 non-fiction, 38 western stories (sailors call them "dusters", 17 science-fiction, 75 war stories and 44 popular works of history.

The trend today in the *Cape Scott* is away from "dusters" to non-fiction, the latter ranging from biographies to true adventure, and books for avid collectors of stamps, coins and the like.

The *Cape Scott's* recreational library is supported by an annual service grant through the Command Library. Each quarter of the year, PO McLeod reviews his books and tries to obtain titles his shipmates suggest or might like. Little-read books are returned to the Command system.

Educational textbooks are available and many are always on loan, mainly to junior tradesmen trying to improve their academic standing. PO McLeod guides these and other young men on board in further reading by stimulating their interest in current events. Television and movies help considerably to foster an interest in reading, he finds.

Members of the ship's company have, in turn, donated 65 books to the library.

complete renovation of maintenance shops within the vessel. All living quarters were modernized.

The principal purpose of HMCS *Cape Breton*, as an escort maintenance ship, is to maintain anti-submarine escorts and minesweepers between refits without dependence on dockyard facilities; and to provide some logistic support, including replenishment, to other ships of the fleet during exercises away from home waters and at foreign ports.

Maintenance facilities in the *Cape Breton* embrace a large number of shops which are capable of handling repairs in the following categories: machine, foundry, blacksmith work, diesel engines, electrical, sonar, electronics, teletype and cryptographic instrument maintenance, shipwright work, welding, sheet metal, plate shop work, pipe and coppersmith, ordnance fitting, and torpedo tests.

As with the *Cape Scott*, support provided by the *Cape Breton* includes water, power, steam, general stores, along with medical and dental facilities.

The ship has a complement of 20 officers and approximately 180 men.

A great variety of electrical and electronic jobs has been handled by the skilled sailors of the *Cape Breton* during the ship's various fleet support periods.

These have included repairs to radar pedestals in destroyer escorts; tuning, testing and aligning of fore-control systems, navigational radar and various types of communications equipment. Instrument repairs and calibrations, motor and armature winding have also been successfully done on numerous occasions. A number of such jobs were of a first-time nature, and reflected the high calibre of training received by the personnel concerned.



CPO Herbert Thomas and PO William Cave in the machine shop of the *Cape Breton*. (E-59788)

On June 13, 1960, divers from the *Cape Breton* tackled, and successfully completed a somewhat unusual underwater assignment. The propeller of a minesweeper was removed, repaired and replaced by clearance diving personnel of the ship.

On another occasion, divers from the *Cape Breton* exchanged underwater sonar dome equipment from the hull exteriors of two destroyer-escorts—an operation of some significance, in that the DEs were not taken into drydock.

The Supply Department of the *Cape Breton* makes up more than 25 per cent of the ship's company.

The ship carried more than 25,000 various items of hardware and equipment. This maintenance material is stored in 16 storerooms, which provide nearly 54,000 cubic feet of gross storage space.

In addition, the ship has 35,000 cubic feet of storage space for provisions, and of this total, 12,500 cubic feet are refrigerated.



The Tale of A Shirt

THE CUTTY SARK'S lost cutty sark has been found, but there must be a lot more to the story than appears in the recent press report:

"LONDON (CP)—The famous tea clipper *Cutty Sark* will again wear her 'short shirt' masthead emblem. It was lost in 1895, but turned up in a recent auction."

Basil Lubbock, in *The Log of the Cutty Sark* gives a much later date for the disappearance of the emblem, which he described as a "golden shirt or cutty sark which fitted over the pin at the main truck."

Mr. Lubbock also says: "Captain Willis [the original owner] presented this emblem to the ship after her defeat of the *Thermopylæ* in the race home from Sydney in 1885. It was a challenge to the golden cock at the *Thermopylæ*'s masthead.

"Captain Woodget [her most famous commander] told me it was made out of some non-rust yellow metal. It was still afloat when the '*Cutty's*' mainmast went over the side off the Cape in 1917; some day perhaps it may be washed ashore on the Cape Coast, when it will certainly mystify those who find it."

It is equally mystifying to learn that the golden shirt has turned up in an auction room. But at least it is possible to explain, for the sake of those who do not speak the Doric or have never read Burns, how a short shirt came to be associated with the tea clipper. In his poem "Tam o' Shanter", Robert Burns tells how his hero was riding home after supping many good Scots chopins of nappy (look out for the Scotch Ale if you are ever in the Clyde) when he came to "Alloway's auld haunted kirk."

The light was blazing out of every window, for a coven of witches was holding a sabbath within. The Devil was sitting on the sill of the east window playing the pipes for the witches' dancing. "The mirth and fun grew fast and furious" and the dancers found the pace so hot that they got rid of most of their clothes. Many of them were what one might expect in witches, but:

"There was ae winsome wench and
walie

That night enlisted in the core,
Her cutty sark of paisley harn,
That while a lassie she had worn,

In longitude though sorely scanty,
It was her best, and she was
vauntie."

Or, as a Sassenach might say: there was one fine wench, and she had grown out of her shift. Her name, it appears was Nannie.

Nannie was by far the liveliest and best dancer, and Tam, watching at the window, felt obliged to applaud. He roared out: "Weel done, Cutty Sark."

The lights went out, Tam shipped up his mare, and the witches were after him. He made for the Brig o' Doon, for he knew that witches cannot cross a running stream in pursuit of a victim. Again Nannie led the coven and she caught the mare by the tail, just as she reached the keystone of the bridge. But Meg, the mare, made one desperate effort:

"Ae spring brought aff her master
hale,

But left behind her ain grey tail."

Thus it was, when John Willis, a Scot, was casting about for a name for what he hoped would be the fastest of all clippers, he thought of Burns' fleet-footed witch. She later fulfilled his hopes, logging 15 knots over a day's run many times. But he was not satisfied with a fast and profitable ship, he required one that was beautiful and had her embellished with all the skill of the ship-carver that his money could command, commissioning Mr. F. Hellyer of Blackwall for the work. To quote Lubbock again: ". . . his conception of Nannie, the beautiful witch, her hand reached out in pursuit of Tam o' Shanter and her long black hair flying in the wind, was considered a magnificent ex-

ample of his art. . . . When the *Cutty Sark* was in port it was the custom to get a long horse's tail and put it in Nannie's hand to represent the old mare's tale, which the beautiful witch pulled off. . . .

"Captain John Willis instructed Hellyer to put forward all his talent and spare no expense in portraying Burns's great poem in carved wood upon bow and stern of the *Cutty Sark*. Thus Tam o' Shanter on his grey mare 'Meg' was to be seen riding along the clipper's quarter whilst the witches in very scanty attire were shown dancing in great abandon on the scroll work of the *Cutty's* bow.

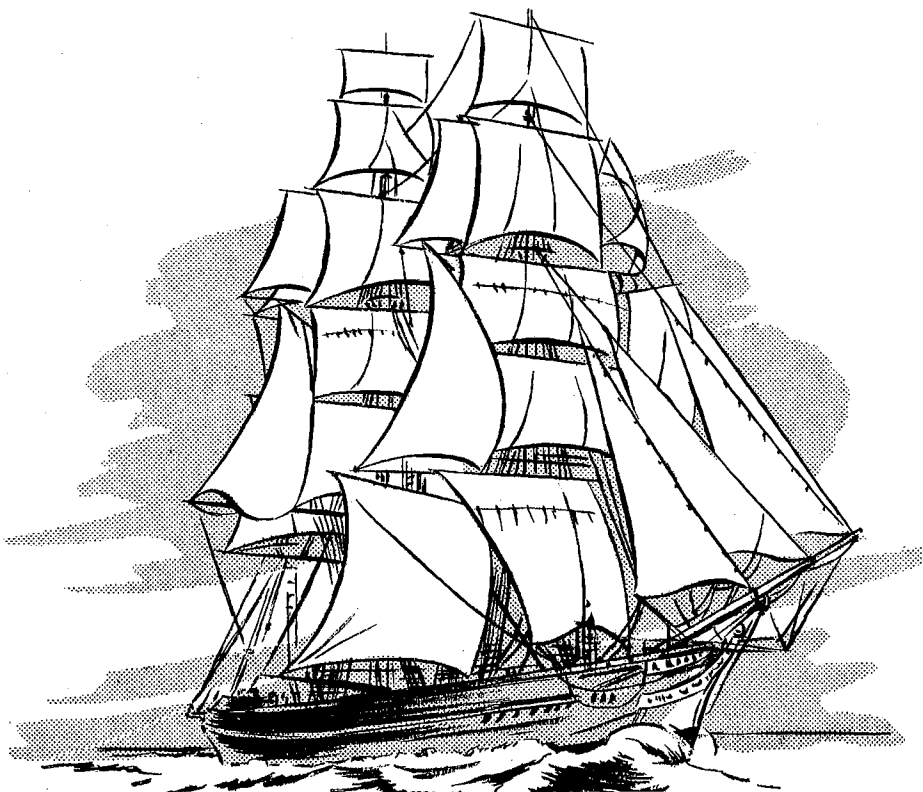
"This artistic masterpiece, however, was too much for the well-known mid-Victorian delicacy in such matters and [Willis] had the naked witches removed."

Nannie lost her head and arm in a gale in the Roaring Forties long ago and the complete figurehead was replaced with an inferior substitute. When the ship was turned over to the National Maritime Museum at Greenwich recently, a third figurehead was made for her and now the masthead "cutty sark" has returned—but how about those dancing witches?

Burns drew a moral from the tale, which should be remembered by seamen going ashore in the Clyde, or anywhere else for that matter:

"Whene're to drink you are inclined,
Or Cutty Sark's run in your mind,
Think, you may buy the joys too
dear,
Remember Tam o' Shanter's mare."

—Ph. Ch.



Naval Lore Corner

Number 94 EVOLUTION OF THE NAVAL OFFICER'S UNIFORM

UNIFORMS WERE ADOPTED FOR NAVAL OFFICERS IN 1748, 105 YEARS BEFORE THEY WERE AUTHORIZED FOR SEAMEN. BEFORE THAT DATE 'UNIFORMS' FOLLOWED CLOSELY THOSE OF THE ARMY AND WERE PREDOMINATELY RED. HEREWITH ARE A SELECTED GROUP OF UNIFORMS REPRESENTING SUCCEEDING PERIODS TO DATE...



1748-67, LIEUT.'S
UNDRESS FROCK.
MANY YEARS
PASSED BEFORE
ALL OFFICERS
CONFORMED
IN DRESS...



1774-87 (LEFT) SENIOR
CAPTAIN, UNDRRESS.
ARRANGEMENT OF
BUTTONS INDICATED
RANK. MANY INDIVIDUAL
ECCENTRICITIES
WERE DISPLAYED...



1800 (LEFT) LIEUT.
UNDRRESS.
1795-1812 (RIGHT)
SENIOR CAPTAIN.
EPAULETS WERE ADOPTED
TO INDICATE RANK.
LATER ONLY FLAG
OFFICERS WORE THE
COCKED HAT
'ATHWARTSHIPS'...



1832 (LEFT) LIEUT.
FULL DRESS.
CIVIL BRANCH OFFICERS
(RIGHT) WORE SINGLE-
BREASTED TUNICS.
THE ARRANGEMENT OF
THE BUTTONS INDICATED
BRANCH (IE. SURGEON)



1829-33
COMMANDER (RIGHT)
UNDRRESS. NOTE
INTRODUCTION OF
PEAKED CAP NEG-
ATIVE BADGE.
CAPTAINS WORE 3
STRIPES, COMMANDERS
2 AND LIEUTENANTS
ONE...



1856-79
(RIGHT) LIEUT.
UNDRRESS. THE
CAP BADGE HAS
REMAINED
FUNDAMENTALLY
UNCHANGED...



1879-91
(LEFT) LIEUT.
MORNING DRESS.
THE BUTTONS ON
THE SLEEVES
REMAINED UNTIL
1891. FLAG OFFICERS
WORE THEIR BROAD
STRIPE BELOW THE
BUTTONS. ONLY
MIDSHIPMEN
RETAINED THEM
THEREAFTER...



1885 (LEFT)
SUB-LIEUTENANT
WEARING SINGLE
BREASTED TUNIC.
THIS UNIFORM
LASTED ONLY 4
YEARS AND WAS
REPLACED BY THE
MONKEY JACKET
IN 1891.



1900 (LEFT) LIEUT.
THE MONKEY JACKET
HAS REMAINED TO
THIS DAY (RIGHT)
ONLY VARYING IN
CUT CORRESPONDING
TO CONTEMPORARY
CIVILIAN FASHION...



Roger Duhamel

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