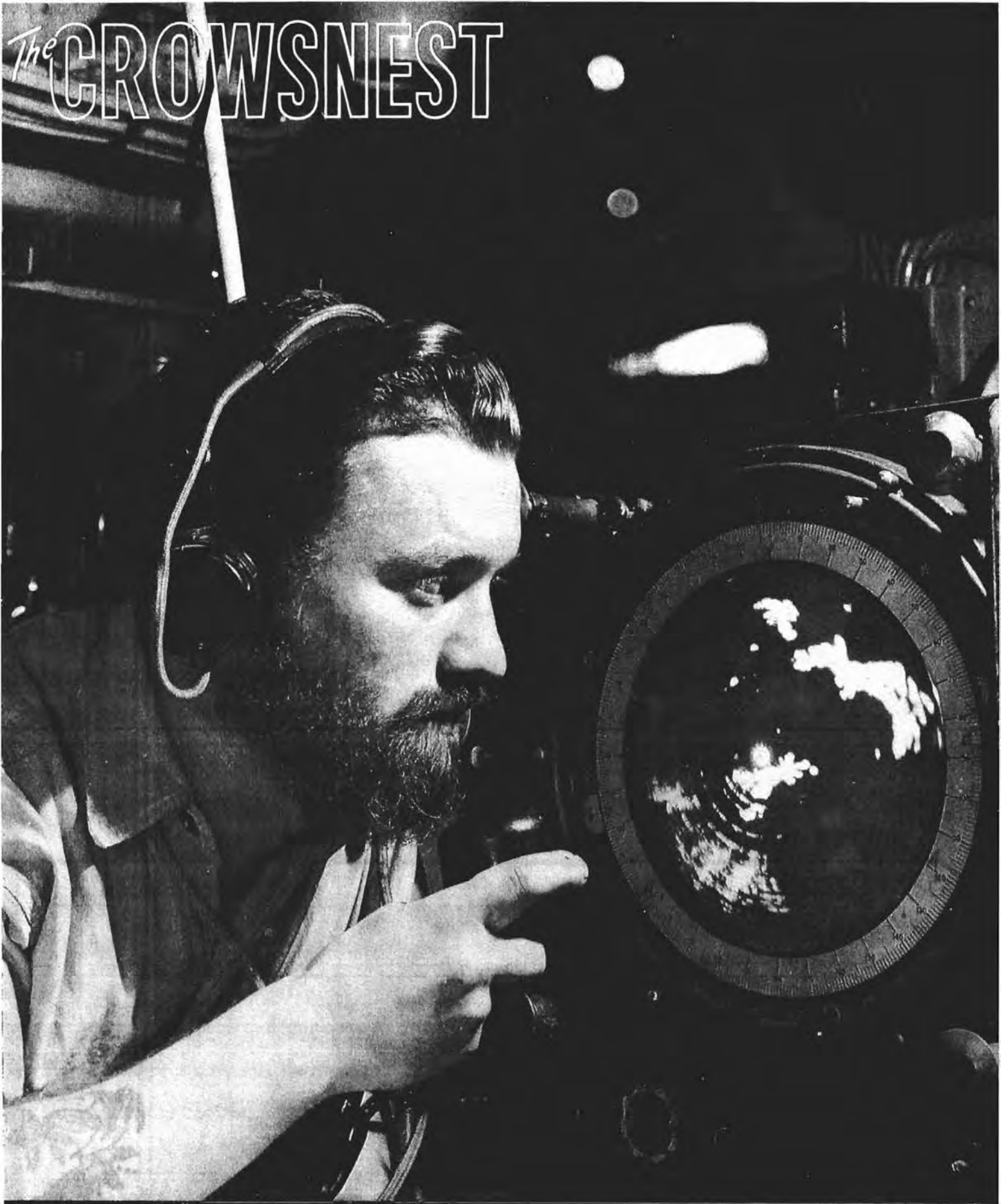
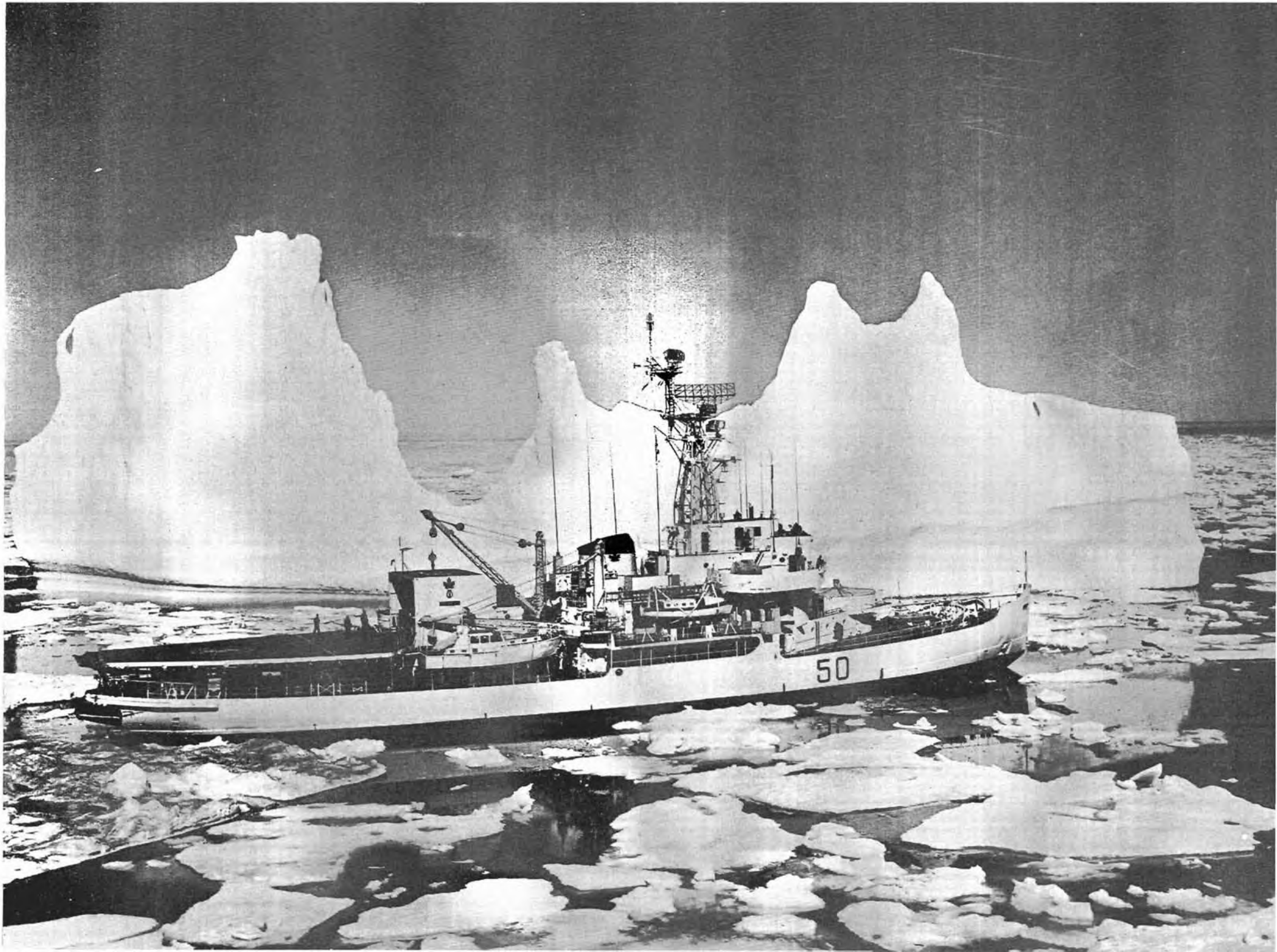
The CROWSNEST



Vol. 9, No. 10 August, 1957


50

The CROWSNEST

Vol. 9 No. 10 THE ROYAL CANADIAN NAVY'S MAGAZINE AUGUST, 1957

CONTENTS

The Cover—One of the greatest marvels in an age of scientific wonders, radar cannot wholly replace good eyesight and good judgment, it is made clear in the article on the legal implications of radar in this issue. The picture was taken on board the *Athabaskan* during a Korean patrol in 1953. (AN-312)

LADY OF THE MONTH

Ice is her business, but when the Arctic patrol vessel *Labrador* encounters a chunk of the dimensions shown on the opposite page she goes around.

The iceberg is not the largest the world has seen—just the largest the *Labrador* has encountered during the last couple of summers in the North. At the same time, it boils down into some pretty impressive statistics. Merely a sliver from the Greenland glacier which spawned it, the iceberg was nevertheless 600 yards long, 300 yards wide and towered above the sea in lofty glistening pinnacles.

A. E. Collins, senior scientist in the ship, estimated that the 'berg displaced 2,000 times the weight of the *Labrador* and, chopped into 100-pound blocks, it could supply that amount of ice daily to each family in a city of 120,000 for 25 years.

Any get-rich-quick thoughts had to be abandoned, however, because the ship was on the way north off the coast of Labrador to her summer duties and the clearance divers could not be spared to cut the iceberg up. (LAB-2240)

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The 840-ton ocean-going naval tug Saint John, one of three "Saint" class tugs ordered for the Royal Canadian Navy. Primarily built for sea rescue work, the craft's design is such that it can also fill the role of a fire-fighting tug. The hull is specially reinforced for navigation under ice conditions. Each vessel is powered by a single-shaft diesel engine of 1,920 horsepower designed to give a speed of 14 knots and has a length of 151½ feet, a beam of 33 feet and a draught of 17 feet.

NATO Exercises Planned for Fall

Admiral Jerauld Wright, USN, NATO's Allied Commander Atlantic announced on June 15 that a series of exercises will be conducted in the autumn by the Allied Command Atlantic.

These exercises are a part of the regular cycle of NATO training and will involve Fleet operations, submarine warfare, anti-submarine warfare, mining and mine sweeping operations, and convoy escort. They will take place during September, October and November under the overall direction of the Supreme Allied Commander Atlantic with the following subordinate commands: Commander-in-Chief, Eastern Atlantic Area; Air Commander-in-Chief, Eastern Atlantic Area; Commander-in-Chief, Western Atlantic Area; Commander Striking Fleet Atlantic.

The exercises will be: "Sea Spray", a Fleet exercise; "Fish Play II", a submarine warfare exercise; "Strike Back", a Fleet exercise; "Sea Watch", an anti-submarine and convoy protection exercise; "Fend Off", an anti-submarine exercise; "Pipe Down", a small scale Fleet exercise, and "Sharp Squall II", an anti-submarine training exercise.

Six destroyer escorts of the Royal Canadian Navy will take part in the NATO exercise "Sea Watch" to be held in the north and mid-Atlantic from September 19 to 28.

The ships, all based at Halifax, are the *St. Laurent, Ottawa, Assiniboine, Saguenay, Iroquois* and *Nootka.* They will join more than 65 other ships, 15 squadrons of aircraft, and approximately 20 submarines from France, the Netherlands, Portugal, the United Kingdom and the United States in the exercise.

"Sea Watch" is an anti-submarine, anti-surface raider and convoy protection exercise designed to train surface and other units in detection, tracking and attacking of submarines and raiders.

Three anti-submarine carrier groups, each consisting of one carrier and six escorts, and three surface escort groups, one consisting of 12 destroyers and the other two of six destroyers, will be assigned to offensive anti-submarine operations and convoy protection against undersea and surface raiders. Supporting the sea units will be shore-based maritime patrol craft, and combined intelligence gained from the surface and air searches will be used in tracking and attacking the enemy forces. One unit from the "enemy" undersea group will travel as far south as the Strait of Gibraltar in an attempt to penetrate the area.

"Sea Watch" is part of the regular training schedule of NATO Area Commanders-in-Chief and their forces. Admiral Wright is sponsoring the exercise which will be jointly conducted by Admiral Sir John A. Eccles, RN, and Air Marshal Sir Bryan B. Reynolds, RAF, joint Commanders-in-Chief Eastern Atlantic Area, and Admiral Wright, who also holds the appointment of Commander-in-Chief Western Atlantic.

Singapore Brings 'Swans' Into Navy

Swans are being brought into the naval service in Singapore, according to a Reuters despatch.

Elsewhere in the Commonwealth of Nations the swans would be known as wrens—for the name is formed of the initials of the new Singapore Women's Auxiliary Naval Service, which is being formed as the women's section of the Singapore division of the Malayan Royal Naval Volunteer Reserve.

Labrador Well Into Summer Program

By late July, HMCS *Labrador* had got well into her fourth successive year of surveys and research in the Arctic and was on the eve of taking part in the sea-borne supply of Distant Early Warning sites in the eastern Arctic area of Northern Canada.

Sailing from Halifax toward the end of June, the *Labrador* first began an initial survey of the DEW Line supply routes and landing beach areas. In addition, oceanographic surveys were

carried out in Hudson Strait and a hydrographic survey party and helicopters were landed at Resolution Island off the south-eastern tip of Baffin Island to carry out surveys there.

In mid-July she sailed to Narssaq, Greenland, where she embarked an official party including H. F. Feaver, Canadian Ambassador to Denmark, and Eske Brun, head of the Danish Government's Greenland Department, for passage to Godthaab.

Returning to Canadian waters, the *Labrador* carried out a small but important supply task in Frobisher Bay when she landed supplies for a Fisheries Research Board scientific party located at Ney Harbor on the south coast of the bay.

The party, consisting of Mr. and Mrs. Ian A. McLaren, of Montreal, had to go in this spring with minimum supplies due to transportation difficulties and had a food supply sufficient to last only until the end of July.

Arriving well within the deadline, the *Labrador* landed new supplies, including food, an 18-foot freight canoe and an outboard engine for the couple.

Lt.-Cdr. R. A. Shimmin, commanding officer of VU-33, at right, accepts the Flying Safety Award Trophy from Commodore (S) Charles J. Dillon, Supply Officer-in-Chief, during the latter's recent visit to the West Coast from Naval Headquarters. (E-42304)

Pat Bay Squadron Safety Winner

Ten thousand flying hours without a single accident has brought the coveted Safe Flying Award to the Royal Canadian Navy's utility squadron VU-33, stationed at Patricia Bay.

In competition with 14 other active force squadrons within the Navy, the Patricia Bay Unit was recently presented the safe flying trophy by Commodore (S) Charles J. Dillon, Supply Officer-in-Chief, Naval Headquarters, Ottawa. The award was accepted on behalf of VU-33 by the Unit's Commanding Officer, Lt.-Cdr. R. A. Shimmin, of Victoria and Vancouver.

The Safe Flying Award trophy is awarded annually by the Supply Branch of the Navy to the air squadron with the lowest accident rate in the Royal Canadian Navy.

In a congratulatory message to the officers and men of Patricia Bay's VU-33, Rear-Admiral H. F. Pullen, Flag Officer Pacific Coast, said: "This

How the Bonaventure Came Home

A Halifax *Mail-Star* reporter, perched on a dockyard rooftop, led off his story on the arrival of HMCS *Bonaventure* with Rabbie Burns' "The best laid schemes of mice and men gang aft a-gley . . . "

Fog had disorganized elaborate welcome plans and its murk was so thick that thousands of expectant eyes could not discern the 20,000-ton carrier until she was within yards of her berth.

It is doubtful that the reporter saw her at all before his story went up to the paper's composing room, but he had captured the atmosphere and the editor made his story the highlight of the front page.

The 1,000 officers and men on board the ship, unable to see either shore of the harbour, heard their welcome before they could see it. Ships in port caught a glimpse of the "*Bonnie*" off the dockyard and raised a fog-splitting clamour on whistles and sirens.

The weather prevented Nova Scotia's Lieutenant-Governor Alistair Fraser and Rear-Admiral R. E. S. Bidwell, Flag Officer Atlantic Coast, from boarding the carrier at the Halifax approaches by helicopter. However, they joined the ship by yard craft, bringing with them Halifax Mayor Leonard Kitz. The fog ruled out a flypast by aircraft from *Shearwater,* but yard craft and a fire tug escorted her up harbour. The aircraft were to have included Banshees and Trackers destined to fly from her decks operationally.

The welcome was a bit shrouded but enthusiasm was high in the ship and ashore. The *Bonaventure* and *Stadacona* bands tossed selections back and forth over the narrowing gap between ship and jetty, and the crowds cheered. Television and movie cameras whirred, radio commentaries crackled and still photographers invaded every vantage point. Gentlemen of the Fourth Estate had also met the carrier in the harbour approaches and spent the interval in interviewing personnel in the ship.

The commanding officer, Captain H. V. W. Groos, told them she is a "most comfortable and efficient ship" and that everything had gone "swimmingly well" in trials in U.K. waters with Banshees and Trackers. He said her equipment was as modern as that in the U.S. Navy super-carriers and that certainly no ship of her type and size excelled her in devices carried.

The ship was scheduled to arrive alongside at 11 a.m., but the fog was so thick that it was closer to noon before she was alongside. There was a further delay for relatives and friends while a draft of 325 men who had paid the *Magnificent* off in the United Kingdom were disembarked. After that, more than 2,000 people rushed on board to greet the *Bonaventure* crew.

Thirty of the "*Bonnie*" sailors had married in Belfast, 40 babies had arrived in other *Bonaventure* families during the overseas stay. The ship brought a wide assortment of pets, particularly Irish-bred dogs, as well as a collection of British bikes and trikes.

Her maiden voyage to Canada came almost 14 years after the *Bonaventure* had been laid down in the yards of Harland and Wolff in Belfast. She was laid down in November, 1943, for the Royal Navy but work was suspended when hostilities ceased. In 1952 extensive construction began again to make her the first Canadian-owned successor to the *Warrior* and *Magnificent,* which the Royal Navy had loaned to Canada in 1946-48 and 1948-57 respectively.

The *Bonaventure* incorporates the latest carrier-borne aids to operational naval flying, including the angled deck, steam catapult and mirror landing aids. Officers are in single or double cabins, the men have bunks, with reading lamps and foam rubber mattresses.

The carrier's departure from Belfast ended a long association between her crew and Ulstermen. Some of the officers had been in Belfast for three years and the majority of the ship's company since last December. She was commissioned on January 17 and carried out five months of trials and tests before heading for Canada. More than 150 of the crew had wives and families in Ireland. Most of them left ahead of the ship but some remained until the end of school terms.

achievement of your squadron reflects great credit upon your establishment, and is a source of pride to the Pacific Command."

Cdr. (W) Macneill Leaves Service

Commander (W) Isabel Janet Macneill, OBE, RCN(R), of Halifax, the first Canadian wren officer to be decorated and the first and only woman in the Royal Canadian Navy to hold a command, returned to civilian life on July 31, 1957. Cdr. Macneill has been Staff Officer (Wrens) on the staff of the Chief of Naval Personnel since the summer of 1954.

Succeeding Cdr. Macneill as Staff Officer (Wrens) is Lt.-Cdr. (W) Jean Crawford-Smith, RCN, of Toronto.

Cdr. Macneill re-entered the Navy three years ago to co-ordinate the establishment of the wrens on a permanent force footing in the RCN, the first time that wrens of any Commonwealth navy had been integrated in regular force structures.

Before joining the wrens when they were being organized in 1942, she was associated with voluntary war work in Halifax and was instrumental in founding and organizing the Ajax Club for naval personnel there.

Commissioned in October, 1942, she was appointed to HMCS *Conestoga,* wren training establishment at Galt, Ont., and served as training officer, executive officer and then as commanding officer until March 1945, when the establishment was deactivated. Some 6,000 wrens received training there.

Cdr. Macneill was awarded the Order of the British Empire, which was gazetted in June, 1944, the citation reading in part:

"Her wide knowledge, her profound sympathy and her unfailing and inspiring devotion to duty have made her contribution one without parallel in the service."

Lt.-Cdr. Crawford - Smith was born in Toronto and entered the wrens in December, 1942. She was granted her commission in March 1943 and served at Headquarters on the Trade and Intelligence staff and with the Director of Personnel Selection. Later she was a counsellor at *Carleton,* Ottawa naval division and *York,* Toronto. She returned to civilian life in May, 1946.

Lt.-Cdr. Crawford-Smith entered the RCN (Reserve) in 1951 and was divisional officer for reserve wrens at *York* until March 1953, when she went on fulltime duty and was appointed to *Naden* as Commander's Assistant and Senior Wren Divisional Officer.

CDR. (W) ISABEL MACNEILL

LT.-CDR. (W) JEAN CRAWFORD-SMITH

In November 1954 she was appointed Staff Officer (Wrens) on the staff of the Flag Officer Naval Divisions at Hamilton. Five months later she transferred to the RCN in a short service appointment.

Lt.-Cdr. Crawford-Smith was promoted to her present rank in July 1956, becoming the first regular force wren officer to attain that rank.

In April 1957 she was appointed to Naval Headquarters as Assistant Staff Officer (Wrens).

New Pay Scale For Armed Forces

On completion of a detailed review of the pay scales of the armed forces, the government in July approved increases to all ranks, to be paid retroactively to May 1, 1957.

While the study revealed that the pay in the armed forces had fallen behind the comparable salaries and wages of good private employers, this disparity had become most significant for skilled tradesmen and professional officers, Defence Minister G. R. Pearkes, VC, said in a statement. To correct this situation and to retain in the forces the competent trained men whose services are becoming increasingly important, an increase in trades pay of 20 per cent was granted in addition to increases in basic pay.

A few examples indicate the emphasis given in these increases as to service and trade proficiency. An increase of $156 a year has been given to the able seaman and his equivalent in the other services who has reached the second level of trade skill, and an increase of $276 a year to the able seaman who has six years' service and has reached the third level of trade skill. The increases for men range upward to a peak of $480 a year for the first class chief at the fourth and highest level of trade skill.

The new pay schedule also makes appropriate adjustments in officer pay. All increases apply to both regular and reserve forces.

The following table sets out the details of lower deck increases:

	Standard Group	Trade Group 1	Trade Group 2	Trade Group 3	Trade Group 4
	$	$	$	$	$
CPO1	336	360	396	444	480
CPO2	336	360	396	444	480
PO1	288	312	348	396	432
PO2	264	288	324	372	408
Ldg. Sea	180	204	240	288	324
AB	96	120	156	204	240
with 6 yrs' Prog	168	192	228	276	312
Ord. Sea (Trained)	48	72	108	156	192
Ord. Sea	48	72	108	156	192
Ord. Sea (New Entry)	24				

THE LEGAL EFFECT OF RADAR IN MARINE COLLISIONS

A timely and valuable article on a modern problem
by
Nicholas J. Healy, 3rd

THE DISASTROUS collision between the *Andrea Doria* and the *Stockholm* has captured the attention, not only of the admiralty bar, but of the public as a whole. Here were two of the finest ships afloat, each equipped with the most modern radar and other modern navigational aids, and yet they came together in the open sea with tragic consequences which are only too well known to all of us.

The press and the public immediately raised the question: How could such a thing happen, when both vessels were equipped with radar? Such a question is the result of a popular misconception of the function of radar on shipboard. Many people conceive of radar as something in the nature of television. They have the notion that a radar screen is like a TV screen upon which may be seen all vessels and other objects within the range of the radar set.

As admiralty attorneys we all know that unfortunately this is not the case. Another vessel will appear on a radar screen merely as a minute dot of light or "pip", as it is usually called, and the "pip" will appear motionless, even though it may represent a vessel proceeding at a very high rate of speed. A single observation will reveal neither the course nor the speed of the other vessel, but only its bearing, that is, its direction in relation to true north or in relation to the heading of the radar vessel, and its distance from the radar vessel.

To be of any further value, a radar observation must be repeated several times, and the observations must be plotted on a plotting sheet, a Hydrographic Office "manœuvring board" or a transparent plotting device fitted over the radar screen itself. A line drawn between the positions so plotted will then indicate the observed vessel's relative course. By measuring the distance between the plotted positions to scale, and noting the time when each position was observed, the approximate speed of the observed vessel can be readily calculated The navigator then knows whether or not his vessel and the observed vessel are on "collision" courses; that is, courses which, in the absence of a change in course or speed on the part of one or both of the two vessels involved, are likely to bring them into collision.

It will thus be seen that radar equipment is useless as an aid in the avoidance of collision unless it is skilfully handled and unless the information which it furnishes is accurately plotted and properly interpreted. It is here that the human element becomes of importance and human failure can be so disastrous.

As admiralty attorneys we know that radar has resulted in a marked decrease in the number of collisions at sea, but that collisions still do occur between radar equipped vessels. Furthermore, we know that in the hands of an incompetent operator, radar sometimes produces a false sense of security which will lead him to continue at a high rate of speed in areas of limited visibility so that if a collision does occur, the resulting damage will be extremely severe.

Some seventeen radar cases have already been decided in American, English and Canadian courts, and it is safe to assume that many times that number have been either settled before trial or are still awaiting trial. The decided cases have not resolved all of the legal questions which the advent of radar has created but they have resolved some of them. We shall attempt to summarize these questions and the answers to such of them as have been answered by the courts.

1) Is lack of radar equipment a fault?

No statute or regulation requires a merchant vessel to be radar equipped. There may come a time when Congress will see fit to enact legislation requiring radar, at least on sea-going passenger and cargo vessels. If such a statute is passed, its violation will of course impose on the violator the burden of proving that the absence of radar not only did not, but could not have contributed to a collision. This would be an application of the familiar rule of *The Pennsylvania.* (1) Furthermore, even prior to the enactment of any such legislation, there may come a time when radar will be so generally accepted as standard equipment that failure to have it on board a vessel will be considered by the courts as constituting an unseaworthy condition, and vessels without it may be held at fault for collisions which could have been avoided by the proper use of radar. (2)

2) Is a vessel equipped with radar at fault for a collision resulting from her failure to use it at all?

This question was answered in the affirmative in the first American radar case ever decided. In *The Thomas*

EDITOR'S NOTE

The accompanying article on maritime law as it applies to the use and misuse of radar raises issues which are of vital concern to every commanding officer, navigating officer, officer-of-the watch, radar operator and lookout. Commanding officers of HMC Ships are urged to bring the article to the attention of all personnel concerned in any way with the safe navigation of the ship and to preserve the article and bring it to the attention of officers or men assigned to navigation, lookout or radar duties in the future.

The author of the article, Nicholas J. Healy, 3rd, is a former lieutenant in the United States Navy and a member of the law firm of Nelson, Healy, Baillie and Burke, of New York City. The article was originally delivered as an address by Mr. Healy at a panel sponsored by the Admiralty Committee of the Federal Bar Association in Washington in September 1956. It was published last January in the JAG Journal, *organ of the Office of the Judge Advocate General, U.S. Navy, has appeared in the* Merchant Marine Council Proceedings *of the U.S. Coast Guard and was also to appear in the* Federal Bar Journal.

The article appears here by courtesy of the author, the JAG Journal *and the Federal Bar Association. It is copyrighted and* The Crowsnest *cannot, therefore, extend the usual reprint privileges to other marine journals which may be interested in it.*

(1) 86 U.S. 125

(2) See the Davila-The Wilkes, 88 F. Supp. 158, 1950 A.M.C. 631 (D. Mass.), where the Court found that a destroyer was not deficient for lack of navigational radar equipment in 1942. Compare The Chusan (1955) 2 Lloyds List L.R. 685 (Adm. Div.) where the Court said that one could "expect" to find a modern vessel equipped with radar.

Barry-The Medford, (3), a fog collision occurred between a radar-equipped army transport and a fishing trawler. On the morning of October 21, 1945, the *Barry*, proceeding from New York to Le Havre with troops, was steering an easterly course. When about 125 miles east of Nantucket Lightship, she sighted a heavy fog bank ahead, but nevertheless maintained her full speed of 18 knots. About 22 minutes later she entered the fog bank, still under a full bell. A minute later she struck the starboard side of the *Medford*, which she did not see until the vessels were only 200 or 300 feet apart. The *Medford* had been trawling at three knots on a southerly course. She sank in a matter of minutes. Seven men on the schooner lost their lives and two were severely injured.

The *Barry* was equipped with a Navy type radar and there were two rated Navy radar-men in her crew. Despite her excessive speed and the dense fog conditions ahead, the *Barry's* radar equipment was never used. Her master claimed that he endeavoured to find the radar-men some time before entering the fog bank, but apparently did not persist in his attempt, and made no use of the public address system, although the vessel was equipped with one. In condemning the *Barry* for the tragic consequences of this neglect, the Court stated in its opinion:

"The failure of the *Barry* to use her radar is the most serious and sinister aspect of these causes. . The perfection of that device is thought to have invoked a new concept of the responsibilities attaching to vessels so equipped, touching their handling and operation in or near a fogbound area. . . . The stipulated proof here is that the offending ship could have informed herself of the presence and track of the *Medford* in abundant time to have avoided by a wide margin any danger whatever of striking her. Under such circumstances, it is impossible to yield to the argument for the *Barry*, that her conduct is to be condoned to any extent, in view of her failure to employ the very device which was installed to prevent a collision, and to operate which she carried two men having special rating in the U.S. Navy to attest their qualifications, and who had no duty on the ship other than to operate the radar unit."

There was no appeal.

In a more recent case, *The Duke of York-The Haiti Victory*, (4) the doctrine of *The Thomas Barry* was restricted to a situation where the necessity for the use of radar is, or should be apparent to the navigator of the radar-equipped vessel. The *Haiti Victory* had been proceeding in clear weather and the *Duke* was concealed in a fog patch on the Victory ship's starboard bow, the existence of which her navigator had no reason to suspect. The District Court, in exonerating *Victory* said:

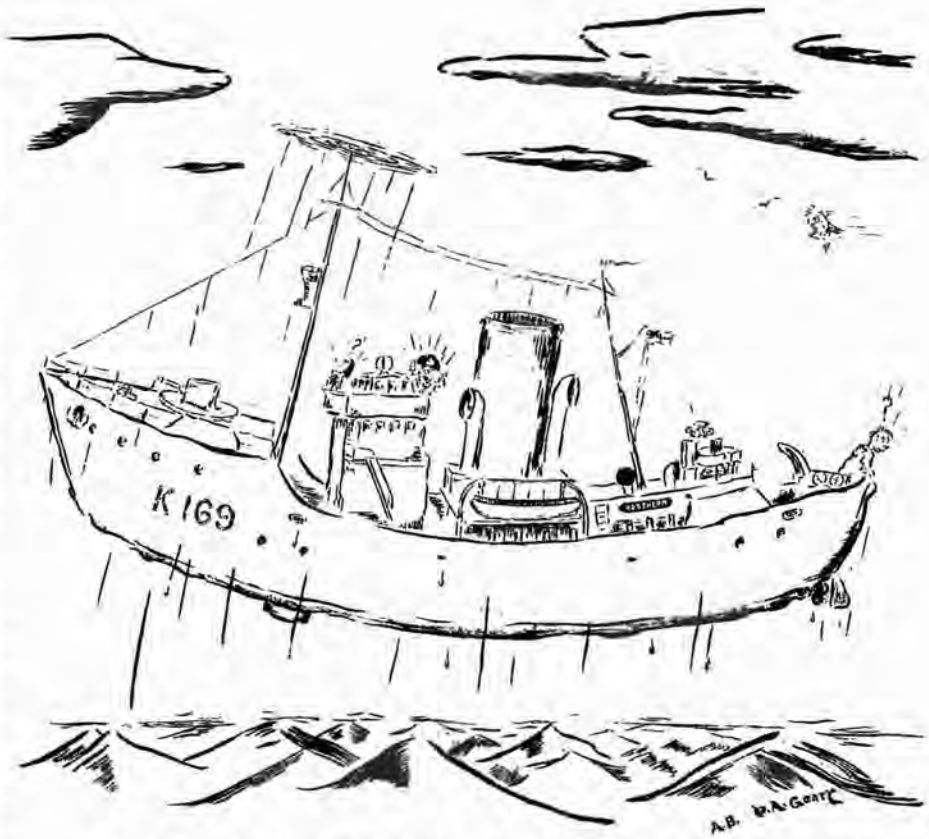
"His failure to see the *Duke* was not negligence, for it was not the result of neglect of an obligation. No obscurity obligated him to use his radar, and there was nothing else to put him on notice of any need for it."

The decision was affirmed on appeal.

In line with *The Thomas Barry* is a recent English case, *The Esso Plymouth*. (5) There, both vessels were held at fault for a collision in a bank of smoke. The *Esso Plymouth* was equipped with radar of a type which took three minutes to warm up, but her navigator failed to switch it on in time, although he knew that his vessel was approaching the smoke bank. In commenting on the faults of the *Esso Plymouth*, the Admiralty Division of the High Court of Justice had this to say:

"Moreover, the *Esso Plymouth* had on board a potential silent look-out, which could have been used if it had been made available in time. In saying that I am speaking of her radar instrument. . . . I can think of no good reason why there was that unfortunate delay in switching on the radar of the *Esso Plymouth*. But, again that is only part of the major charge of bad look-out, which resulted in her, like the *Elblag*, blundering into this bank of smoke at high speed."

Of course, if the navigator has good reason to believe that the information



"Hey Mate! Ease down on that aerial. Do you think this is a ruddy helicopter?"

Radar was still a novelty in the Royal Canadian Navy when this cartoon was drawn for the amusement of the ship's company of HMCS Rosthern back in the early '40s. The set would appear to have been the old "Swick" (SW1C), whose long, spiky antenna was a far cry from some of the neat parabolic reflectors of today. (NF-3724-63).

(3) 1946 A.M.C. 795 (E.D.N.Y. 1946). For discussion of this case, see 32 Cornell L.Q. 570; 33 Virginia L. Rev. 71; 21 Tulane L. Rev. 106; "Radar and the Regulations for the Prevention of Collisions at Sea", by Capt G. C. Saul F.R.A.S., A.I.N.A., published in the 1947 Journal of the Honorable Company of Master Mariners, p. 610, and "Radar and the Rule of the Road", by Capt. W. H. Coombs, C.B.E. published in the 1949 Journal, p. 46.

(4) 131 F. Supp. 712 (E.D. Va.), Aff'd 230 F. 2d 139 (4th Cir. 1956); 1956 A.M. 275; cert granted 352 U.S. 821 (Question limited to right of claimants to implead each other under Adm. Rule 56 in a limitation proceeding.)

(5) (1955) 1 Lloyd's List L.R. 429 (Adm. Div.).

which he is receiving on the radar screen is inaccurate, he should not rely upon it. In *The Isaac T. Mann-The Esso Aruba,* (6) the Court exonerated the *Mann,* whose master had secured the vessel's radar equipment when he found that its proper functioning was being hampered by "a lot of interference". The Court said:

"Advocate for the *Aruba* argues that the *Mann* was at fault because it discontinued using its radar sometime before the collision. Captain Keating had been using the radar aboard the *Mann* on a five-mile range for the passage between Providence and Sandy Point; on the five-mile range false targets were picked up. 'We were getting quite a lot of interference,' Captain Keating testified. At the time the *Mann* ran into fog he 'gave up trying to use the radar because the objects were so hard to make out.' I find that Captain Keating under all the attending facts and circumstances, was not negligent in discontinuing the use of the radar. While radar is one of the greatest boons devised for navigation, it is not a fixed and invariable rule that the navigator must use it in all events. There might well be times when the continued use of radar by a navigator who was uncertain of the results he was observing and unwilling to place reliance thereon might well be foolhardy and hazardous. There should be a certain discretion allowed competent and experienced ship-handlers to use or not use radar as the circumstances of the moment require."

There is no suggestion in the opinion that the "interference" was the result of any defect in the radar equipment itself. This leads to the consideration of our third question:

3) Is it a fault to fail to maintain radar equipment in an efficient state of repair?

This question is still to be squarely decided by the courts. However, in *The Duke of York-The Haiti Victory,* to which reference has previously been made, the District Court indicated that such a failure may constitute a fault. I quote from the opinion:

"At this point it is well to refer to the *Duke's* radar. Its use would have avoided the collision and its unavailableness was due to neglect of repair. There was ample warning—a day or two—of its disrepair. Had it been in operation, the situation so urgently demanding its services, omission to use it would clearly have been negligence. However, as the *Duke of York's* excessive speed was the predominant fault leading to the collision, it is not necessary in this case to pass upon the question of whether or not, in the absence of statute requiring radar, a lack of diligence in maintaining existing radar facilities is negligence."

If failure to use radar when conditions warrant is a fault, it would seem logical to hold that negligent failure to have it ready for use is likewise a fault. This is but an application of the settled principle that a vessel must make use of all the means at hand to avoid a collision. In a sense this may impose a burden on the vessel which carries radar equipment which the vessel without such equipment does not share, but in principle it is little different from expecting a steamship to maintain her machinery properly, even though a sailing vessel may have no machinery at all.

4) Is failure to interpret radar information correctly a fault?

Here the answer is clearly "Yes", according to American, English and Canadian decisions alike. (7) As the Supreme Court of Canada said in one of these, *The Chinook-The Dagmar Salen:*

"If radar is to furnish a new sight through fog, then the report which it brings must be interpreted by active and constant intelligence on the part of the operator."

5) Is radar a substitute for a visual lookout, or any other requirement of good seamanship?

That a vessel must maintain a good lookout has been called by the courts "the first rule of the Admiralty." The necessity for a proper lookout is recognized by Rule 29 of the Rules of the Road at Sea, the rule of good seamanship.

The decisions make it clear that the posting of a visual lookout may not be dispensed with in the case of a radar-equipped vessel. (8) Thus, in *The Anna Salem,* the Court said:

"As I mentioned at the outset of this judgment, this is an unhappy case of collision between two well-found ships, both equipped with every modern aid to navigation, including radar. It is a melancholy reflection that the collision probably would not have happened if the ships had not been equipped with radar. These scientific installations and particularly radar, are potentially most valuable instruments for increasing safety at sea, but they only remain valuable if they are intelligently used, and if the officers responsible for working them work them and interpret them with intelligence. That is only another way, I think, of saying that a good look-out must be maintained. A good look-out involves not only a visual look-out, and not only the use of ears, but it also involves the intelligent interpretation of the data received by way of these various scientific instruments. This collision ought never to have happened, and certainly would not have happened if both vessels had made intelligent use of the scientific instruments with which they were equipped."

6) Is a position obtained by radar an "ascertained" position within the meaning of Rule 16 of the Rules of the Road at Sea?

The second part of Rule 16 requires a vessel hearing, apparently forward of her beam, the fog signal of another vessel, the position of which is not ascertained, to stop her engines, if the circumstances permit, and then navigate with caution until danger of collision is over.

In dealing with this problem in a recent case *The Prins Alexander,* (9) the House of Lords had this to say:

"There are obviously possibilities of error in the use of PPI. There should be, we are advised, in circumstances such as the present, continuous observation by one man and plotting of bearings if reliable inferences are to be drawn. Art. 16 stands, and it is to be noted that the new Rule which has now replaced it is in substantially the same terms. It may be that proper observations on a PPI can 'ascertain' the position of a vessel in the sense explained by Lord MacMillan. They clearly did not do so in this case so far as the N. O. *Rogenaes* is concerned."

It appears from this quotation that the House of Lords recognizes the theoretical possibility of a radar position being an "ascertained" position. However, as a practical matter if a radar vessel should fail to stop her engines upon hearing a fog signal apparently forward of her beam, it is difficult to see how she could convince a court that the position was in fact an "ascertained" position, and that she was therefore without fault

(6) 94 F. Supp. 486, 1950 A.M.C. 1771 (D. Mass. 1950).

(7) The Southport (1949) 82 Lloyd's List L.R. 862 (Adm. Div.); The Meteor, 121 F. Supp. 830, 1954 A.M.C. 1921 (E.D. Mich. 1954); The Chinook-The Dagmar Salen (Supreme Court of Canada) 1951 A.M.C. 1253; The Anna Salem (1954) 1 Lloyd's List L.R. 475 (Adm. Div.).

(8) The Bucentaur-The Wilson Victory 125 F. Supp. 42 (S.D.N.Y. 1955); The Anna Salem (1954) 1 Lloyd's List L.R. 475 (Adm. Div.); The Triton-The Baranof (Exchequer Court of Canada) 1953 A.M.C. 393.

(9) (1955) 2 Lloyd's List L.R. 1 (Adm. Div.), See, also the Anna Salem (1954) 1 Lloyd's List L.R. 475 (Adm. Div.).

for a collision following her failure to stop.

Radar has a minimum as well as a maximum range. Weather and "sea return" affect the "picture" shown on the scope. Small objects are difficult to detect, and wooden vessels sometimes give a poor "echo". (10) Bearing these and radar's other limitations in mind, and remembering how deceptive fog signals can be, how can a navigator possibly be said to have *"ascertained"* that the fog signal from a vessel which he cannot see with his eyes has been sounded by a vessel which the radar scope indicates is going to pass clear? There is no rule of the road which has been more stringently applied than Article 16.

Unless certainty exists, the engines must be stopped, and stopped at once. Otherwise, the navigator acts at his peril and his vessel will be held at fault if collision follows. (11) While there is a possibility, however remote, that the signal is from a vessel within the minimum range of the radar's effectiveness, from a target obscured because of "sea return" or because of a "blind spot", or for any other reason, there would seem to be a violation of Article 16 if the engines are not stopped immediately.

7) In fog or other areas of limited visibility, does the use of radar permit a vessel to proceed at a speed which would otherwise be considered immoderate?

This question is perhaps the most important of all.

The first part of Rule 16 requires "moderate" speed in fog. The courts recognize that "moderate" is a relative term. It means one speed in light fog and another in heavy. Likewise, it means one speed for a highly manœuvrable vessel, and another for a vessel with poor backing power. Taking both of these variables into account, the courts have generally interpreted "moderate" speed to mean a speed sufficiently low to permit the vessel to take her way off (by stopping and backing) within half the limit of visibility. (12)

It is common knowledge that most radar-equipped vessels, and particularly passenger and cargo liners, which operate on fixed schedules, pay scant heed to this interpretation of Article 16.

No case thus far decided has squarely held that a radar-equipped vessel must proceed slow enough to be able to take her headway off within half the limit of visibility. Nevertheless, it may be gathered from the decisions that a vessel exceeding such a speed will be held at fault if a collision results.

A typical case is *The Southport,* (13) where the Court stated the proposition in this way:

"The point raised by Mr. Hayward (the *Southport's* proctor), namely that a speed in fog which would in ordinary circumstances be regarded as excessive may still be a moderate speed under Article 16 of the Regulations for a vessel fitted with radar, will no doubt, have to be decided in some future case. The proposition seems to me to involve at least an assumption that a vessel

fitted with radar in fact makes proper use of the apparatus with which she is fitted. I am satisfied in the present case that those on board the *Southport* who were concerned with the radar apparatus made no proper use of their instrument, and are consequently not entitled to rely upon the fact that they had facilities, of which they made no intelligent use, to excuse them for proceeding in thick fog at a speed which, but for the existence of such facilities, would have been highly excessive. It seems to me, moreover, that if Mr. Hayward's proposition were accepted to the full, while a vessel equipped with radar might escape blame for proceeding at high speed in fog, she would quite probably be found to blame if a collision ensued for failing to keep a good look-out on her radar screen. In the present case I prefer to find the *Southport* to blame for initial speed and for retaining an excessive speed until she heard the whistle of the *Finborg.*"

In the more recent case, *The Chusan,* (14) there was no continuous watch maintained on the radar screen and the *Chusan* was not aware of the other vessel's presence until her signal was heard. In holding the *Chusan* one-fourth to blame the Admiralty Division of the High Court of Justice stated:

"I have come to the conclusion that for a vessel of this character, navigating in this area in these conditions of visibility, and in circumstances in which a continuous watch was not being kept on the radar, a speed of seven knots was excessive. I find no other fault with the *Chusan,* but I do not see that I can avoid concluding that the excessive speed of the *Chusan* was a factor contributing to the collision.

". . . I wish to make it abundantly clear that what I have said is not to be interpreted as meaning that a vessel which does maintain a continuous watch on her radar is thereby entitled to proceed at an excessive speed in fog. I hope that nothing I have said in this case can be twisted round and used in future cases in such a way that it may seem to justify a speed which would otherwise be excessive, merely on the basis of a continuous watch being maintained on the radar set. I approach the matter in this way. It seems to me part of any seaman's duty, in the exercise of reasonable care, to take full advantage of any equipment with which his vessel is equipped. After all, a radar set is not the only kind of equipment with which one expects a modern steamship to be supplied. It is the fact that this equipment is supplied to be used, and used intelligently; but I am far from saying that the use of this equipment can be prayed in aid so as to justify navigation that would otherwise be reckless."

The Bucentaur-The Wilson Victory (15) is a good illustration of the reasons why the "half limit of visibility" interpretation of the moderate speed rule should not be modified in the case of a radar-equipped vessel. I quote from the opinion:

"That fifteen knots was not a reasonable speed under the prevailing conditions is perhaps demonstrated by action taken four hours earlier, at 2332, when fog became thick. At that time the captain ordered engines half ahead. Thus, the standard of prudent conduct was set by the master himself. Why wasn't the same caution exercised shortly before the collision under similar, if not more difficult, weather conditions?

(10) "Electronic Navigational Aids" pp. 44-5. Published by the United States Coast Guard, 1945.

(11) The Selja-The Beaver, 243 U.S. 291.

(12) The Umbria, 166 U.S. 404.

(13) (1949), 82 Lloyd's List L.R. 862 (Adm Div.).

(14) (1955), 2 Lloyd's List L.R. (Adm. Div.)

(15) 125 F. Supp. 42, 1955 A.M.C. 142 (S.D.N.Y. 1955).

"There is upon this record no plausible explanation for failure to exercise the same caution displayed earlier when the *Wilson Victory* was slowed down in heavy fog unless we accept the pilot's statement that considerable reliance was placed upon radar. Although the captain disavowed such reliance, the pilot admitted that if radar had not been in operation speed would have been reduced. True it is that at 0342 a ship was seen through the radarscope three miles off the port quarter but the rapidly deteriorating weather and the known presence of low-lying fishing vessels in the area did not warrant maintaining speed at fifteen knots because radar was in operation. Radar is an aid, not a substitute, for prudent seamanship. Respondent's expert conceded that the radar model on the *Wilson Victory* could readily miss low-lying ships or fishing trawlers such as the *Bucentaur*. The fact is that radar did not pick up the *Bucentaur* before it was struck."

Unless and until radar is made foolproof, and unless and until all vessels are required to have and use radar equipment, the interpretation which the courts have already put upon the first part of Article 16 will probably remain unchanged; and a vessel, even if radar-equipped, will be condemned for violating the rule if her speed in fog is such that she cannot stop within half the limit of actual visibility.

It may be fitting to close with the language of the Court in *The Hindoo-The Australia Star,* (16) one of the earliest radar decisions:

"The notion that a ship, equipped with radar, may, once her navigation and range lights are bright, plunge through the seas at 16 knots in the hope that all other craft will keep clear of it cannot be accepted as a rule of safe and prudent navigation. . . . It has been suggested that to hold the *Australia Star* at fault is to penalize her because of her equipment with radar. That is a misconception. The conduct which is regarded as negligent on the part of a person of sound vision is not the same as that which is condemned when practised by the blind. The fault of the *Australia Star* is that she chose to remain blind when she had the means to see.

"Prudent navigation involves taking advantage of all the safety devices at hand. Insofar as it is the judicial function to fit scientific discoveries into the framework of laws not tailored to their measures, the function should be carried out with an eye to the general purposes of the law, and to desirable social ends."

(16) 172 F. 2d 472, 1949 A.M.C. 423 (2d Cir. 1949), cert. denied, 338 U.S. 823.

SEA-SLUG — RN's SHIP-TO-THE-AIR MISSILE

SOME DETAILS of the Royal Navy's ship-to-air guided missile, known as Sea Slug, were disclosed in an Admiralty announcement.

Sea Slug is the medium range weapon which, the Parliamentary Secretary to the Admiralty (Mr. Christopher Soames) informed the House of Commons, during the debate on the navy estimates, is designed to engage any enemy bomber which evades the fighter defences of the Fleet. It will do so at any height at which modern aircraft are capable of operating.

The first ships in which Sea Slug will be fitted are the four guided weapon destroyers which have already been ordered by the Admiralty. These ships are to be based on the design of the present Daring class ships but will be larger than the Darings.

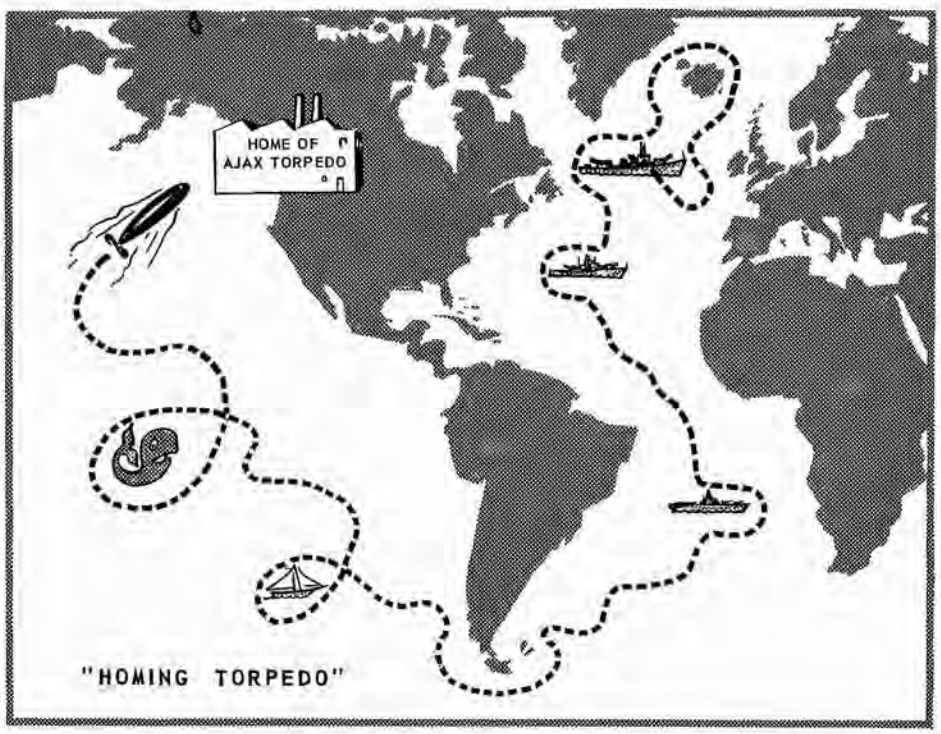
The official announcement stated that Sea Slug has a system of propulsion which consists of a sustainer motor and four booster rockets. These latter are jettisoned after propelling the missile to supersonic speed. Sea Slug is operated and fired from positions within a ship without any personnel being required to be on duty in exposed places.

Although a large number of officers and men are engaged in the maintenance of the missile equipment and in preparations for firing, the number engaged in the actual operation of firing is far smaller than the crew of a conventional gun turret in a major warship.

Targets are detected at long range by radar, and subsequently plotted accurately for range, height and bearing. From this information a particular aircraft may be selected as the target for the missile. The details of the target's range, course and speed are obtained by the missile guidance and control system and used to position the weapon launcher, and enable the operator to determine when to fire the missile. This he does without ever seeing the target.

Missiles are fired from a triple ramp launcher which is automatically fed from a magazine below decks.

The weapon has been developed by the Ministry of Supply, and has been tested at the proving grounds of Aberporth in Wales and Woomera in Australia. At Aberporth some trial firings were made from the Clausen rolling platform, which is a mock-up of part of a ship floating in a concrete basin and capable of simulating all the conditions of roll and pitch likely to be encountered at sea. (*Admiralty News Summary*).



A NEW LOOK AT THE ST. LAURENT

THE HISTORY of the design of the *St. Laurent* is full of interest, and for this we must go back a few years to the Second World War and I would like to briefly refresh your minds on some of the factors that those who serve in that war were very conversant with, and which had a pronounced effect upon the design of our new destroyers.

In 1938 a study by a panel of naval experts revealed that the Royal Navy, at that time, did not have a ship capable of being mass produced to fulfil the task of meeting the prospective submarine menace. It was clearly seen that the prime requisite of this vessel was for the protection of convoys or, as has frequently been stated, "the sea lines of communication".

The panel, after many months of investigation, came forth with ships which were very dear to our hearts, as those of us who served in them came very quickly to know, and as no other ships have been to this day. These ships, appeared prior to the Second World War, the original one being built at Smith's Dock in Middlesborough, and given the historical name, the corvette.

The encyclopedia defines the role of the corvette as "the advanced screen which protects the main unit." How well those words are applied to the indefatigable role the corvette played between the years of 1939 and 1945! Even today the corvette is to be seen on the high seas.

The corvette was the first wholly anti-submarine warship, designed primarily for the North Atlantic area and capable of destroying a submarine. As time passed, we saw a number of shortcomings—first, because of its small size, it was difficult to install any new equipment and accept additional personnel; secondly, how well we remember that, although we never lost this sturdy, young ship in a seaway, it was probably the liveliest, bounciest, and to say the least, the most uncomfortable ship in the North Atlantic.

From the corvette we saw a larger ship emerge, which by virtue of its design, overcame the faults found in the corvette. This ship was the frigate, and here we find a stable platform, comfortable quarters, and ample room for any alteration or addition. But the primary fault with the frigate lay in its speed. Yes, we admit it had range, comfort, endurance, fuel and provision, but the speed factor shortly was to become its most apparent drawback.

In the meantime, we still had our destroyer, a ship capable of over 30 knots, of accepting many roles, which had earned a name as "the bulldog of the fleet". Now this name was established over many years. The destroyers were tough; they were fast; they were versatile. They could accept any duty, from escorting in the fleet to a patrol off the Spanish Coast; but they had one inherent fault, namely, they were expensive to build, both in time and money.

Before I leave this short résumé, there is one additional feature that must be mentioned; and that is, toward the end of the war, we found from experience that the anti-aircraft protection of our convoy escorts failed to meet the required standard. They could neither protect themselves nor the unit they were escorting, and consequently, the anti-aircraft escorts materialized.

So here, as we leave this chapter, we have evolved two distinct design requirements of escorts:

(1) In the anti-submarine role and
(2) In the anti-aircraft role.

IT WOULD BE appropriate if I were to say something about our undersea enemy, the submarine. Again a few words of history. In 1939, at the beginning of the Second World War, the Germans had a first-class operational submarine. Its primary requirement was that it was a submersible torpedo boat. It was capable of long range, endurance, and carried a worthy outfit of torpedoes.

The Author

The designers and builders of the St. Laurent *class destroyer escorts knew what the ultra-modern vessels were intended to do; the author of the accompanying article was the first to find out what ships of this class could actually accomplish at sea.*

The account of the St. Laurent's *unique features and capabilities was originally presented early this year as an address to the Montreal Naval Officers' Association by Cdr. R. W. Timbrell, who commissioned her in 1955 and subsequently saw her through extensive evaluation tests under the scrutiny of the U.S. and Royal Navies. To put it as modestly as possible, the Royal Canadian Navy's pride and joy emerged from these trials without any loss of face.*

Cdr. Timbrell is at present executive officer at Shearwater.

As you remember, their final tactics were to attack in packs at night when we were most vulnerable. Their successes were overwhelming to the point that we were forced to take drastic steps. These counter-measures resulted in long-range continuous aircraft and the appearance of radar in the ships. These two factors removed the menace from the surface and forced him beneath the sea, but the submariner was not beaten.

His next step was to bring about the homing weapons, weapons which he could use to remove or to severely damage the fence that was around his target. Further, the continual air patrols forced him to travel under sea, with little opportunity to surface and recharge his batteries.

This setback was partially overcome by the design and fitting of the "snort", which enabled him to recharge his batteries and yet remain practically entirely below the sea.

But still he found that his losses were mounting. He required greater underwater speed and greater endurance; and so we saw the new submarine appearing. The Type 21 gave him an underwater speed of 15 knots. The Type 26 gave him an underwater speed of 26 knots, but, fortunately, did not come into operation before the end of the Second World War.

The present day submarine is no less a proportional menace than its predecessor of the Second World War. In the modern submarine, we find the qualities of long range, high speed, and deep diving.

These submarines cannot be treated lightly. Here is a weapon of war, a weapon of extraordinary capabilities. The future submarine, which will be atomic powered, will add the two additional features of high speed and unlimited range. This weapon will strike fast and hard, and will be with us shortly, if it is not already here.

FROM THIS past history, the Naval Board of Canada in 1949 formed the staff requirements for the RCN fleet and convoy escort—a warship to be capable of meeting the submarine menace in the North Atlantic and to employ adequate anti-aircraft protection. This design, when completed, had to meet the following qualifications:

(1) of being built entirely in our country;

(2) of being capable of mass production;

(3) of being able to be operated and maintained within the capabilities of Canadian service schools;

(4) of being operated for long periods away from base facilities;

(5) of carrying reasonable complement in proportion to its operational ability.

Now, if I may take these points and explain them, I will be able to give you a picture of the *St. Laurent*.

Need I remind you of those bitter, long winter nights, when we plied back and forth between Halifax, Newfie John, and Londonderry, on those open bridges, with open depth charge racks, open guns, and a very low freeboard? Need I remind you how the individual ship's efficiency dropped because of the cold, wet weather which was always prevalent? When the ice would accumulate so that even the guns disappeared under a mound; where on the open bridge for four hours, you became frozen, your hands so cold you could barely hold your binoculars, your eyes so tired from continually fighting the cold wind, you could hardly read the compass card.

These factors were not forgotten when we required a ship to operate effectively at all times, whether it be in the North Atlantic on a winter night, or in the tropics on a hot summer day. The *St. Laurent* has been completely steam heated and air conditioned throughout. All mountings are heated, the absolute minimum of personnel exposed to the weather; the officer of the watch is inside an enclosed bridge, which has heated glass to ensure visibility, and (may I prove the point?) it is the only bridge that I have visited in my slippers and dressing gown in the middle of the night with the outside temperature around zero.

Before I leave this point, a careful study has been made of the problem of ice collection on the upper deck; and in short, the result was that great attention was paid to ensuring cleanly designed lines, thus avoiding heavy spray, which is how ice is formed. For example, the anchors are entirely housed in pockets, covered by heated anchor doors. By placing the anchors inside, we have removed an obstruction which would break the bow wave, causing considerable spray; and the foc'sle deck has been rounded, not only to encourage quick washoff in the event of contaminated fallout, but further to discourage the ice.

VERY LITTLE need be said about the all-Canadian production aspect, as we all appreciate how unreliable are the pipelines of supply outside our own country when war comes upon us—a most undesirable occurrence—as our planned production then cannot be scheduled. Therefore, we have these ships being built entirely by Canadian industry; for example, our steam turbines come from Toronto, our boilers from Galt, our guns from Sorel, our radars from Hamilton. Then Canada is capable of not only producing these

Cdr. R. W. Timbrell, first commanding officer of the St. Laurent, is shown at the command position below decks in the ultra-modern anti-submarine destroyer escort. (ML-3851)

ships, but of ensuring their continual operational efficiency without the need of outside assistance. So it is today.

In peacetime, we must find and produce the weapons that will safeguard what we have bitterly struggled for during the past generations. In the event war should be the resultant failure of our peacetime efforts, we then must swing into full gear to ensure a speedy victory. We will need many escorts, as our supply of materials will, for many a day to come, continue to move by the sea lanes of communication It would not be economical to keep this number of escorts available in peacetime; and therefore, the *St. Laurent* class has been designed with an eye toward mass production.

For a destroyer, this is a radical departure from previous building methods. Canada has achieved, through the efforts of the naval architects and the ship builders, unit production; this ship is capable of being built right across Canada with the units being shipped by rail to the seaboard assembly yards. The units are of such a size that they may be carried on the present railway flatcars over the bridges, and through the tunnels. This feature applies to the construction of the entire ship.

To further illustrate this, it could mean that the hulls are built in Winnipeg or any other city capable of steel production and shipped either to the Great Lakes for summer launchings, when the St. Lawrence Seaway is operational, or to the Atlantic and Pacific seaboards for winter launchings. This planned pipeline of production for the hulls, the engines, the guns, torpedoes, etc., results in a clear example of mass production of a finished product.

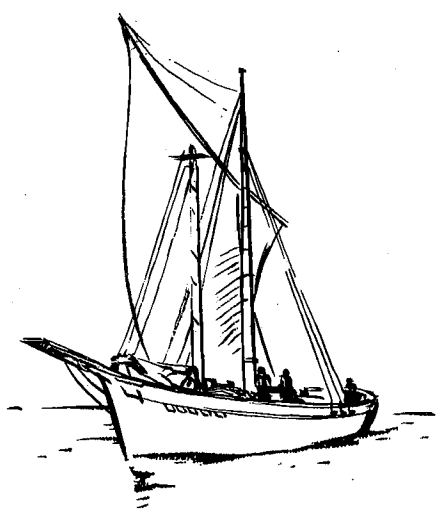
It would be most uneconomical if, when this modern warship came from the ship builders, we could only operate her efficiently with the equivalent of college graduates This may sound a little far fetched, but it is not very difficult to overstep the economical rate of our manpower turn-out We must balance the operational requirement of the ship against the average Canadian available for service; the instructional capabilities of our service schools; and the experience factor.

Another interesting factor is that Canada has a limited number of dry docks capable of taking ships of over 3,000 tons displacement, and in wintertime some of these dry docks are not available due to the ice in the St Lawrence. On the other hand, we have a large number of marine railways which are capable of 3,000 tons load The building of dry docks is no easy problem, and they are expensive; and this was carefully considered in the design of the *St. Laurent*. Further careful attention was paid to the elimination of possible ice damage. The bow was strengthened, the vulnerable places of the water line were reinforced, and the propellers and rudders protected by the over-all hull.

FUTURE war patrols may be of any duration up to 60 days and during this period, the ship must be at peak operational efficiency. Therefore, she must be maintained without the direct facilities of the base. The ship is designed to embark speedily, whilst under way, fuel from a tanker, stores or ammunition from a carrier, and personnel.

To illustrate one minor, but essential, maintenance feature, may I take the fan motors—essential to permit air being available throughout the ship. To achieve this in our previous ships, the fan motors had to be stripped at least every five or six weeks. In the *St. Laurent*, the fan motors are sealed and capable of running for two years without routine maintenance.

In the past, manning complement tended to over-lead beyond the comfort point, often with a peacetime crew, which, as you know is smaller than a wartime crew. The required war complement of the *St. Laurent* has been carefully studied and the ship is built to accept comfortably all personnel, plus a reasonable margin for future expansion. May I say at this time, it was with great delight that the Canadian sailor was informed of the Naval Board's ruling that, in future, we would sleep horizontally and head forward. These words may give you some idea as to what was considered when designing our new ship.



Now a few pertinent details:

The *St. Laurent* is a destroyer, 366 feet long, 22 feet wide, and displacing nearly 3,000 tons. Her wartime complement will be approximately 285 officers and men. She is a larger ship than the Tribal, but considerable weight has been saved by the use of aluminum. The ship is fully equipped for any operational area.

She can steam through or clear of an atomic fallout, and it is possible to make the entire operational and living areas gastight. She is completely fitted with radar, both for surface and air warning, plus gunnery control.

Her radio communications are superior to those of any Second World War cruiser. She is capable of controlling not only the convoy and other escorts, but also aircraft and helicopters, which will be used in conjunction with the ship's own submarine destroying capabilities.

She has been so designed that any underwater or above water damage she may receive will not place the entire ship out of action. Her hull has many water-tight subdivisions and her stability factor has resulted in her being the safest destroyer afloat.

A few interesting features on the electrical side: The electrical power production of this ship is greater than that generated by our former aircraft carrier, the *Magnificent*.

Further, in 1939, the average destroyer had about 75 electric tubes operating, required for the various radio sets, as radar had not yet appeared. In 1945, when I commissioned the *Micmac*, she had about 450 radio tubes, since we were fitted with a limited number of radar sets. For the *St. Laurent* we have over 8,000 operating tubes, covering the various requirements of radio, radar, and fire control.

Since commissioning, we have undergone a number of trials and evaluations, both with the USN and the RN. The ship has won praise, both for its design, production finish and operational capabilities, from the leading navies in the world.

In closing, may I reaffirm that Canada now leads the world in the design and operation of an anti-submarine warship. In the *St. Laurent*, we have a ship that is second to none, and we of the service are extremely proud and confident to sail this as part of Canada's contribution to the freedom of the seas.—R.W.T.

FROM THE RANKS TO DEFENCE MINISTER

Promotion and the Victoria Cross Won on Battlefield

AN EMINENT Canadian soldier who is widely known in the Royal Canadian Navy through the fact that he represents in the House of Commons the constituency of Esquimalt-Saanich, with its large naval population, has become Minister of National Defence.

As a result of the June 10 election, which saw the defeat of the Liberal administration, Major General G. R. Pearkes, VC, CB, DSO, MC, who for many years had been defence spokesman for the Progressive Conservatives in the house, became Defence Minister on June 21, succeeding the Hon. Ralph Campney.

One of his first requests after becoming a minister of the Crown was that he be referred to in his new position simply as "Mr. Pearkes". This will not be easy for those who are acquainted with his outstanding military career.

George Randolph Pearkes was born in Watford, England, February 26, 1888, and was educated at Berkhamsted School, England. He came to Canada in 1906 and after homesteading in the Rocky Mountain District, Alberta, served for two and a half years with the Royal North-West Mounted Police in the Yukon. He enlisted in the Canadian Mounted Rifles as a private soldier in Victoria, in March 1915 and seven months later was in France with his unit.

He rose quickly through the non-commissioned ranks and was commissioned in the field in April 1916. He was promoted to acting captain in October 1916 and to acting major two days later. He attained the rank of acting lieutenant-colonel in January 1918 and became a temporary lieutenant-colonel in March of the same year.

At the end of the First World War, Mr. Pearkes was commanding the 116th Battalion, Canadian Expeditionary Force.

He was wounded in action five times, twice seriously.

He was awarded the Victoria Cross while serving as a major in 5 CMRs for gallantry at Passchendale in 1917. The citation recognized his "most conspicuous bravery and skilful handling of the troops under his command during the capture and consolidation of considerably more than the objective allotted to him, in an attack. Just before the advance Major Pearkes was wounded in the left thigh. Regardless of his wound, he continued to lead his men with the utmost gallantry, despite many obstacles. At a particular stage of the attack his further advance was threatened by a strong point which was an objective of the battalion on his left, but which they had not succeeded in capturing. Quickly appreciating the situation, he captured and held this point, thus enabling his further advance to be successfully pushed forward. It was entirely due to his determination and fearless personality that he was

HON. G. R. PEARKES, VC

able to maintain his objective with the small number of men at his command against repeated enemy counter attacks, both his flanks being unprotected for a considerable depth meanwhile. His appreciation of the situation throughout and the reports rendered by him were invaluable to his commanding officer in making dispositions of troops to hold the position captured. He showed throughout a supreme contempt of danger and wonderful powers of control and leading."

He was earlier awarded the Military Cross for "conspicuous gallantry in action". The citation accompanying the award said: "He led a bombing party with great courage and determination, clearing six hundred yards of trench and capturing 18 prisoners. Later, although wounded, he remained at duty until the battalion was relieved."

Mr. Pearkes was awarded the Distinguished Service Order for gallantry in action at Amiens. The citation read: "This officer handled his battalion in a masterly manner and with an enveloping movement completely baffled and overcame the enemy, who were in a very strong position. He then captured the final objective, which was about 5,000 yards from the start. Before this, however, the men were becoming exhausted, observing which, he at once went into the attack himself, and by his splendid and fearless example, put new life into the whole attack, which went forward with a rush and captured 16 guns of all calibres up to eight inches."

He was also awarded the French Croix de Guerre and was mentioned in despatches.

After the First World War, Mr. Pearkes remained in the permanent force as an officer of Princess Patricia's Canadian Light Infantry and graduated from the British Army Staff College in 1919.

He subsequently held staff appointments in various headquarters and became Director of Military Training and Staff Duties at Army Headquarters in January 1935. He graduated from the Imperial Defence College in the United Kingdom in 1937 and then was promoted to the rank of brigadier to command Military District No. 13, Calgary.

On mobilization of the 1st Canadian Division he assumed command of the 2nd Canadian Infantry Brigade and led this formation overseas in December 1939. He was promoted to the rank of major general in July, 1940, to command the 1st Division.

In September 1942, Mr. Pearkes was appointed General Officer Commanding, Pacific Command, and remained in this appointment until February 1945.

During the Second World War he was created a Companion of the Order of the Bath. The citation said, in part: "In every appointment which he has held he has given outstanding service. His unflagging devotion to duty and his great ability in the training and handling of troops have contributed greatly to the war effort of the Canadian Army at home and abroad."

He was also awarded the United States Order of Merit, "for exceptionally meritorious conduct in the performance of outstanding service. As Commander in Chief, Pacific Command of the Canadian Army, he has contributed

greatly to the joint defence of the United States and Canada by co-ordinating joint action between the forces under command and those of the United States."

Mr. Pearkes entered the political field as a Member of Parliament for Nanaimo, B.C., in June 1945 and has served continuously in the House of Commons since that time, having been re-elected in 1949, 1953 and 1957.

In the House of Commons Mr. Pearkes, has interested himself particularly in defence, external affairs, veterans' affairs and fisheries matters.

He was married in 1925 to Constance Blytha Copeman, daughter of W. F. U. Copeman, of Victoria. They have one son, John Andre, a barrister at law practising in Vancouver. Mr. Pearkes resides at 1268 Tattersall Drive, Victoria, where he attends Christ Church Cathedral (Anglican).

He is a keen horseman and his hobbies include rifle shooting and gardening.

MEMORIAL DEDICATED TO FATHER RICHARD WARD

A MEMORIAL to a highly-regarded naval chaplain who was killed last year was dedicated on the afternoon of May 19 by his mother in Our Lady of Fatima Church at Shannon Park naval married quarters near Dartmouth, N.S.

Chaplain Richard M. Ward, Assistant Chaplain of the Fleet (Roman Catholic) was one of 15 persons who lost their lives when an RCAF CF-100 crashed into the rest home of the Grey Nuns of the Cross outside Ottawa on May 15, 1956. His loss was a blow to the many friends he had made during almost 12 years' service in the Navy.

A memorial fund campaign was organized and almost $4,400 was collected to purchase chimes in his memory for installation in the new Roman Catholic Church at Shannon Park.

Mrs. Mary C. Ward, of Toronto, mother of the late "Father Dick", unveiled a plaque in the church, commemorating her son. It notes that the chimes were contributed in his memory by "officers and men of the naval forces and many other friends".

His Excellency, Gerald Berry, Archbishop of the Halifax Archdiocese, attended the ceremony, and Chaplain Michael P. MacIsaac, retiring Roman Catholic Chaplain of the Fleet, preached the sermon. Also attending were Father Ronald MacLean, Atlantic Command Chaplain (RC), who in June succeeded Father MacIsaac, clergy from the Halifax area and senior naval officers. The pastor of the church is Chaplain (RC) William Boland.

The Father Ward Memorial Fund has submitted the following list of donations with the request that they be acknowledged with thanks.

HMC SHIPS AND ESTABLISHMENTS

Aldergrove	$ 8.50
Algonquin	100.00
Assiniboine	71.00
Athabaskan	47.00
Avalon	5.50
Brockville	20.00
Buckingham	50.00
Bytown	98.50
Cape Breton	67.85
Cayuga	24.68
Churchill	64.00
Cordova	9.00
Cornwallis	115.00
Coverdale	43.73
Crescent	6.00
D'Iberville	41.25
Fort Erie	50.00
Gloucester	100.00
Granby	15.00
Haida	49.75
Hochelaga	28.12
Iroquois	113.00
Jonquiere	20.20
Labrador	150.00
Lanark	18.65
Lauzon	45.00
Loon	9.50
Magnificent	90.54
Naden	159.30
New Glasgow	27.32
New Liskeard	43.25
Niagara	33.08
Niobe	358.00
Nootka	11.98
Ontario	125.00
Oshawa	4.00
Patriot	45.00
Portage	44.50
Resolute	10.00
Royal Roads	6.52
St Laurent	34.00
Ste Therese	22.50
Sault Ste Marie	25.00
Shearwater	213.00
Shelburne	23.00
Stadacona	444.72
Stettler	4.66
Trinity	24.25
Ungava	10.65
Venture	18.00
Wallaceburg	20.60

NAVAL RADIO STATIONS

Aklavik	36.70
Albro Lake	35.50
Frobisher Bay	2.00
Gander	15.90
Masset	13.50
Point Edward	3.00

NAVAL DIVISIONS

HMCS Brunswicker	50.00
Cabot	28.50
Carleton	36.00
Chatham	2.50
Chippawa	25.00
Discovery	75.00
Donnacona	14.00
Griffon	23.82
Hunter	60.00
Malahat	10.00
Montcalm	100.00
Nonsuch	33.00
Queen	21.00
Queen Charlotte	29.00
Scotian	100.00
Star	22.00
Tecumseh	51.25

MISCELLANEOUS

Base Superintendent, Sydney	22.00
Bonneau, Lt(SB) J.	1.00
Burns, Mr. John, Halifax	1.00
Catholic Women's League, Toronto	10.00
Chaplains (RC), West Coast	8.00
Chenoweth, Cdr. R. C.	1.00
Collège Militaire Royal de St. Jean	5.00
Commodore Superintendent:	
Esquimalt	26.75
Halifax	88.00
Cornwall, Mrs. Evelyn B., Vancouver	25.00
Coulter, Mr. A. B., Ottawa	1.00
Dillon, Cdre(S) C. J.	5.00
Earl, Cdr. P. W.	1.00
Farrow, Cdr. J. V.	25.00
Finch-Noyes, Cdre E. W.	1.00
Foy, Rev. Vince, Toronto	25.00
German, Capt. P. B.	1.00
Giroux, Ord. Lieut. G. J.	1.00
Goward, Miss L. A., Victoria	1.00
Hair, M. H. H., Chatham	1.00
Harris, Cdr.(S) R. G.	1.00
Heath, P.O. J.	1.00
Hibbard, RADM J. C.	2.00
Hynes, Miss Marie, Ottawa	7.00
Jackson, Capt. R.	1.00
MacCallum, Surg. Cdre A.	2.00
MacIsaac, Rev. M. P.	5.00
Macneill, Cdr(W) I. J.	2.00
Medland, Capt. M. A.	3.15
Miller, Cdr(E) J. A.	1.00
Murphy, Rev. Charles B., Halifax	3.00
Naval Officers' Associations of Canada:	
Hamilton Branch	10.00
Quebec Branch	23.00
Naval Supply Depot:	
Esquimalt	6.00
Lynn Creek	2.00
Nixon, Mr. B., Halifax	5.00
Principal Naval Overseers:	
Halifax	3.00
Quebec	11.50
Sorel	10.00
West Coast	7.50
Resident Naval Overseer, Orillia	1.50
RCN Depot, Halifax	13.50
Sharp, Mr. and Mrs. R., Ottawa	2.00
Smith, Lieut. T.	10.00
Tapp, Mr. G. M., Vancouver	5.00
Turner, Cd. Off(SB) L.	1.00
Winnett, Capt. H. A.	2.00
Wood, Cdr. J. M. D.	1.00
Wrens Association, Vancouver	25.00
	$ 4,375.67

Summer on Icecap For Junior Officers

It's a cold summer for 50 junior officers of the Royal Navy.

They and their instructors were to leave the United Kingdom by air early in August on an expedition to central Iceland, Admiralty announced. This was the first expedition of the kind organized within the Royal Navy for officers in training establishments. The average age of the party will be about 20. The men will live in the open for five weeks relying on "hard rations".

The aims of the expedition are to give officers who have been selected from volunteers at RN colleges at Dartmouth and Greenwich and the RN Engineering College at Manadon, Plymouth, opportunities to develop self-reliance and initiative, contribute to scientific studies during the International Geophysical Year, make regular meteorological observations, make detailed ordnance survey of an area of about 120 square miles hitherto not surveyed on the ground, experience conditions on an icecap and make ornithological studies.

Captain J. A. Taplin, Royal Marines, who led the 1952 British Schools Expedition to Iceland, heads the expedition. The party includes five Australians, a New Zealander and a Pakistani officer.

'READING MAKETH A FULL MAN----'

Some Notes on Professional Journals for the Sailor

NEW WONDER drugs, new methods of treatment and new surgical techniques are known to the country doctor as soon as they are to his city brother. Engineers in urban industries or remote mining areas are equally acquainted with advances in technology.

Alert professional men of every kind have this in common: they keep themselves up to date and maintain their professional standing. They do this largely through the exchange of ideas in their professional publications.

A sea-going career is a professional career. It calls for the ability to make prompt and correct decisions, the ability to sum up a present situation on the basis of past experiences and a thorough knowledge of how others have acted in like circumstances.

Personal experience cannot fill in all the blanks that remain after an officer or man has undergone his initial training. There are staff courses for officers and specialized courses for men but these have to be held within certain limits or the manning of the fleet would be impaired. However, professional journals of modest cost are available to naval personnel just as they are to doctors, lawyers and engineers.

From the viewpoint of the present close associations with the United States Navy, one of the more interesting and useful naval publications is the *United States Naval Institute Proceedings.* Although the Institute's regular membership is composed of officers of the regular U.S. Navy, Marine Corps and Coast Guard, the *Proceedings* are available by subscription and are an asset to any wardroom or other mess.

Stimulating articles in the January 1957 issues, for example, dealt with the Navy as an ambassador of freedom and democracy, the incredible disaster on the California coast in 1923 which resulted in most of the ships of Destroyer Squadron Eleven piling up on the rocks, lessons to be drawn from the tragic loss of the *Andrea Doria,* and a pictorial history of the San Francisco Naval Shipyard. A chief petty officer does a thoughtful piece ("Give Them a Goal, Not Gold Braid") on improved status for men of his rank, and the eminent British military writer, Major Reginald Hargreaves, MC, writes on the factors in democracy that threaten the military forces on which it depends for survival.

A French-language publication, with equally wide interests, is *La Revue Maritime,* published in Paris under the patronage of the Naval Historical Service of France. Thorough, studious articles on nautical and naval history go hand in hand with discussions of atomic warfare and other current subjects.

For those who wish to improve their knowledge of foreign languages and broaden at the same time their grasp of naval affairs there is a number of excellent foreign-language publications, such as *Revista General de Marina,* published by the Naval Ministry, in Spain, and the bi-monthly magazine *Marine Rundschau,* published in West Germany.

With a view to promoting freedom of discussion among members, certain publications have a private or restricted circulation. The keen discussions which enliven the pages of the British quarterly *The Naval Review,* could not help but benefit any member of the naval service with driving interest in his sea-going profession, although unfortunately, the journal is available only to members.

It would be a mistake to confine one's reading to naval publications. The armed services today are members of single defence team and each should have a basic understanding of the problems and capabilities of the others. Because of its rapid growth and industrial and commercial ramifications, there are any number of periodicals concerned with aviation. Published in Canada are *Aircraft* and *Canadian Aviation,* which, of course, are only incidentally concerned with the military aspects of aircraft.

The Canadian Army is served well by *The Canadian Army Journal,* which is intended primarily for circulation among Army officers, but whose articles are often of wide interest.

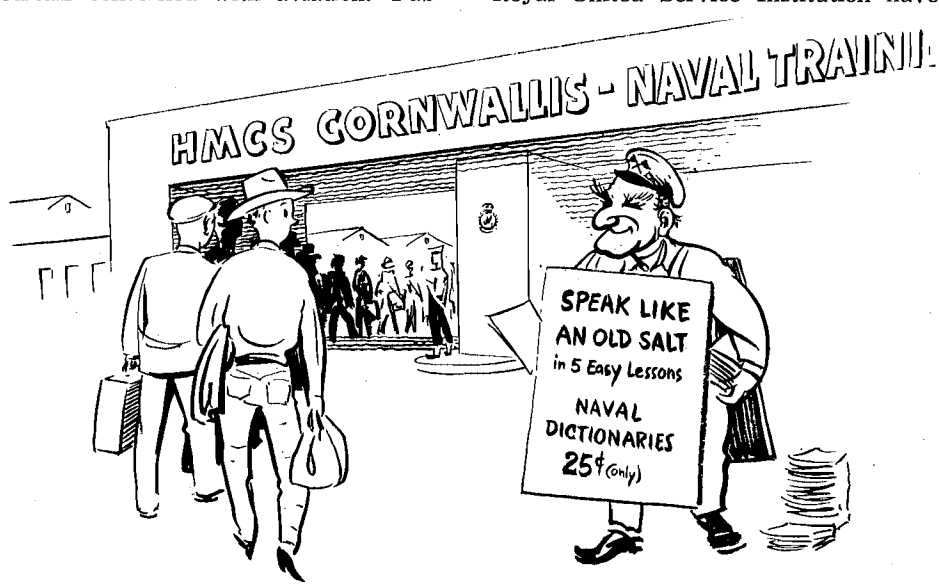
Lastly, simply because it does not fit into any of the categories with which this article has dealt earlier, the attention of officers and men is drawn to the quarterly *Journal of the Royal United Service Institution.*

Here is a "professional" publication which ranges across the entire field of military endeavour from ancient times to the present day. A striking feature of the *Journal* is the lectures given at the Royal United Service Institution, with reports of the free and sometimes highly critical discussion which in each case followed them.

In a recent issue, articles are to be found with these titles: "Women-at-Arms", "Kenya Mau-Mau", "Science in War", "Canada Leads the Way in Tri-Service Education", "Financial Management in the United States Army", "Nile Gunboats, 1884-85", together with the regular departments, numbering among them a concise review of the international situation.

It was in the *Journal* the text appeared of Field Marshal Lord Montgomery's famous lecture, "A Look Through a Window at World War III".

Some of the other facilities of the Royal United Service Institution have



been mentioned in earlier issues of *The Crowsnest*. The library contains what is regarded as the finest collection of military literature to be found anywhere and a large proportion of the books are available on loan to members. The lecture theatre and Royal United Service museum are open to members visiting or resident in London.

Full membership is restricted to officers but the *Journal* is available to non-members by annual subscription.

The publications mentioned so far are those which are of professional interest to persons serving in the Navy. There are numerous other periodicals which are worthy of attention and it would be a mistake to confine one's reading simply to the selected few.

Nuclear weapons, submarine operations, guided missiles, psychological warfare, including the infamous "brain washing", and kindred topics of lively present-day interest have produced a spate of volumes—some of them authoritative, some merely sensational. Careful selection and study of these (the reviews in the journals mentioned here will prove a useful guide) cannot help but augment the theoretical background required to meet new and unfamiliar situations.

About three and a half centuries ago Sir Francis Bacon said: "Reading maketh a full man, conference a ready man, and writing an exact man." He also said: "Knowledge is power."

His words are as true today as ever. The officer or man who keeps himself fully informed on developments within his profession is the one who can offer the greatest service to his country and who is likely to see his knowledge reflected in responsibility and advancement.

Notes on the publications mentioned above:

United States Naval Institute Proceedings, published monthly in Annapolis, Maryland; associate membership (officers) $4 a year; by subscription $6.

La Revue Maritime, published monthly by Editions Ozanne, 56 rue de Verneuil, Paris 7, foreign subscription, 2,700 francs a year (about $7.50 at current exchange rates).

Revista General de Marina, published monthly by Ministerio de Marina, Montalban 2, Madrid, Spain; subscription price not listed.

Marine Rundschau, published bi-monthly by E. S. Mittler and Son, Berlin-Frankfurt, West Germany; approx. $2.05 a year in West Germany, foreign rates not listed.

The Naval Review, published quarterly for private circulation among officers of the Commonwealth of the rank of midshipmen or above; applications for membership should be sent to the Secretary-Treasurer, Rear-Admiral R. R. Wallace, CBE, Birch Hanger, Kingsley Green, Haslemere, Surrey; annual subscription, £1 10s; officers of and below sub-lieutenant, 15 shillings.

The Canadian Army Journal, published quarterly; by subscription, $2.00 a year; all orders to be addressed to the Supervisor of Government Publications, Department of Public Printing and Stationery, Hull, Que.

Journal of the Royal United Service Institution, published quarterly; annual subscription for individuals and messes £2 annually; RUSI membership (officers) including journal, £1 10s; memberships or subscriptions may be obtained by writing The Secretary, Royal United Service Institution, Whitehall, London SW1, England.

HMCS Comox is seen on her arrival in Halifax from the West Coast after a month-long spring voyage by way of the Panama Canal. (HS-48106)

LIVERPOOL HAVEN FOR SAILORS

MANY THOUSANDS of former and serving members of the Royal Canadian Navy have reason to remember Liverpool and the Gorham Chapter of the IODE.

Late in 1940 and early in 1941 when ships of Norway and the RCN put into Liverpool for refit the members of the IODE immediately perceived the need for supervised recreation for naval personnel. Accordingly, with the assistance of the town father, the assembly hall in the Town Hall was turned over to the IODE for a canteen. Mrs. Eleanor Millard was the regent of the IODE at the time, and she served in this capacity for a total of 14 years.

The canteen opened at 5 p.m. daily and suppers were served to members of the Navy for 25 cents. At 10 p.m. each night for four years coffee and sandwiches were served free of charge. Each Sunday afternoon tea was served and it is worthy of note that Mrs. T. E. D. Watson looked after this project every Sunday for four years without a break. Mrs. J. Roger Inness was convener of the IODE War Committee at the time.

Names like HMCS *Malpeque, St. Catharines, Cobalt, Kenora, Amherst,* and *Sherbrooke* were common and when each ship left this port the officers and crew presented a memento to the IODE. These gifts now fill the entire room and some are mounted on the walls and others stand on special tables.

Nearly lost in the profusion of gifts from naval personnel is the crest and a model of a Hudson bomber, the gift of No. 4 Detachment, RCAF. This unit was stationed at Happy Landing near Liverpool and the men were guests of the canteen throughout the latter years of the war.

Ships re-fitted here in recent years have followed the same custom and mementos are evident from the *New Liskeard* in 1951 and the *Ungava* in 1956. A pennant from the Commander, Escort Squadron Eight, commemorates the visit to Liverpool of the USS *DeLong* and the USS *Coates* in July, 1951.

Overlooking the entire room, with what might be termed as a glance of approval, are the portraits of Mr. and Mrs. James Gorham, two of the early settlers of this historic town. On the opposite wall is an oil painting of Wing Commander Leslie Sydney Ford, BA, DFC and Bar of the RCAF who was lost in action off the Dutch Coast 4 June, 1943.—By Armand F. Wigglesworth in *The Halifax Chronicle-Herald.*

MAN *of the* MONTH

BILINGUAL SAILORMAN --- ENGLISH AND NAVALESE

WHEN HMCS *Gloucester,* naval radio station near Ottawa, was asked to pick a Man-of-the-Month they chose a quiet, friendly chief petty officer whose colourful speech is liberally salted with naval slang. He is CPO William Leggett, of Rocky Mountain House, Alberta, the master-at-arms at the station.

When asked if he had any idea why he had been chosen Man-of-the-Month, his answer was typical of him.

"Well," he said, "they're glad to be rid of me."

But the only part of the Chief's answer that bore any resemblance to fact was that his date of retirement was fast approaching.

As for *Gloucester* being happy that he's going, here are the words of the Executive Officer: "He is a first-class master-at-arms, a good leader and, more important, a friend to all who served under him and to all his superiors."

CPO Leggett first saw light of day in Regina, Sask., but was a mere eight months old when his family moved to Rocky Mountain House.

In March, 1937, at the age of 17, he followed an older brother Harry, into the navy and he was still a boy seaman when he was drafted to HMCS *Skeena* (destroyer) six months later. The following year, in April, the *Skeena* traded places with the *Saguenay* and he shifted his bag and hammock to the *"Sag"* for five months.

He returned to *Naden* in September, 1938, and then was drafted to one of the new Bassett class minesweepers, HMCS *Nootka.* Four months later he was back at *Naden* awaiting draft to the United Kingdom for an LR 3 course at HMS *Excellent.* On completion of the course, in October, 1939, he went to HMCS *Assiniboine* when she commissioned in the U.K.

After some months of the convoy routes and in the southern Atlantic guarding possible escape routes of enemy ships, Chief Leggett went to *Stadacona* to qualify CR 2 and then was drafted to the four-stacker *Niagara* in September, 1940.

A year later he returned to *Stad* and almost immediately joined the *Assiniboine* (the *"Bones",* as she was affectionately called) for the second time.

"This," said Bill, "was my mistake."

Escorting a convoy in August, 1942, the *"Bones"* came out of a fogbank: "And right there," said Bill, "was an unterseeboot ready to fight it out".

Chief Leggett's action station was at the range-finder and, as the submarine and the *Assiniboine* exchanged fire, shrapnel began to fill the air.

CPO WILLIAM LEGGETT

Finally Bill's opposite number of the range finder said: "If blood's red, I've been hit."

A call to the bridge gained permission to close down the range finder and Bill set about helping his "oppo" down the ladder. Halfway down another shrapnel burst peppered them and Leggett sustained hits in the hands, feet and right knee.

After ramming the U-boat, the *Assiniboine* picked up about 20/ survivors and made for Newfoundland where Bill was hospitalized. Two weeks later, after the ship had been made somewhat more seaworthy, he was taken to Halifax and, after two months in hospital there, he took six weeks' convalescent leave in his old home town, Rocky Mountain House.

Back at *"Stad"* he was recategorized and transferred to the regulating branch. Since then, he says, "I have been helping my fellow man — you know: 'Give me your card, sailor!' "

From 1944 on, Chief Leggett regulated all over the place. First at *"Stad",* then in October 1944 he commissioned HMCS *Peregrine,* the manning pool in Halifax. In March, 1945, he went to *Cornwallis* and after V-J Day, "I managed to get back to the West Coast."

He spent a few months at *Naden* and *Givenchy,* then in February, 1947, he picked up the *Uganda.* He returned to *Naden* in August, and in December the following year he was drafted to the *Ontario.* Back at *Naden* in July, 1950, he stayed for nine months and then joined the staff at *Cornwallis* for over two years. His next draft kept him at HMCS *Coverdale,* naval radio station near Moncton, N.B., for two years, followed by four months at *"Stad"* and five months in the *Quebec.*

He came to *Gloucester* in June, 1956, and will proceed on retirement leave on September 19, 1957.

CPO Leggett was granted a "hurt certificate" in December, 1942, for the wounds he sustained in the *Assiniboine,* and was awarded the Long Service and Good Conduct Medal in March 1952.

Looking back over the past 20 years Chief Leggett says it's the unimportant things that seem to stand out in his mind.

"For instance", he says, patting his now ample girth, "my first meal in a Royal Navy establishment, sausage and mash, for me and the bash—totally inadequate by Canadian standards."

He also recalled the first and last time he ever talked back to a policeman. "I was a boy seaman and three of us were on our way to a dance. We passed two policemen on the street standing beside a 'black maria'. All I said was 'Hiya flatfoot' and the next thing I knew I was in a jail cell and my friends were off to the dance. I found out later the police had put me in the cell as a joke and when my two chums came in later to get me they let me out with huge smiles."

Chief Leggett has, in the course of his duties in the regulating branch, worked closely with various police forces and now numbers many of them among his friends.

On retirement he has a job lined up that is closely allied to his regulating duties, that of probation officer in Sault Ste. Marie.

CPO Leggett is married and has a son William Jr., 12, with whom he spends a great deal of time and hopes to spend more in the future.

"Do it over again? You bet and I wouldn't change a minute of those 20 years."

OFFICERS AND MEN

Cornwallis Float Prize Winner

While the *Mayflower II* was afloat on the broad Atlantic another *Mayflower* was a float — in the latter instance the prize-winning float entered by HMCS *Cornwallis* in the 1957 Annapolis Valley Apple Blossom Festival in Kentville, N.S.

Cornwallis' entry was greeted so enthusiastically that it has since been shown in Digby, N.S., on Dominion Day, and was to participate in the Annapolis Royal Natal Day Parade on August 4 and in Navy Day celebrations in Halifax.

The *Mayflower* model, towed by a jeep in the Apple Blossom Festival on June 1, took first prize in the Armed Forces Division. The theme for the floats in this year's parade was "anniversaries" and *Cornwallis*, with the voyage of the *Mayflower II* in mind, came up with the idea of commemorating the voyage of the Pilgrim Fathers 350 years ago in the first *Mayflower*.

The *Cornwallis* float committee, coordinated by Lt. J. M. Peers, who put forward the idea for the model, had to abandon plans for a ship that would fit a 22-foot low-bed trailer. It was found that Kentville bridges would not allow for a clearance of more than 12 feet, 6 inches. This was the exact height, from the road to the top of the masts, of the final model. She managed to scrape by.

Plans for the model were drawn up from photographs and from the plans for a one-foot model of the ship. Some inspired guessing had to be done in rigging the ship and photographs, obtained after the model had been built, revealed some errors in construction, but only minor ones.

Supervision and technical advice on rigging and hull was the task of Lt. M. A. Carey, while the actual construction of hull and mast was undertaken by members of the shipwright staff, Chief Petty Officers J. P. Doucette, E. J. Ablett and S. J. Morency, and Petty Officer H. M. Porter. The masts were made from unused spars and the hull was built of wooden frames covered with masonite and plywood strips. The smaller blocks, anchor and other miscellaneous fittings were also produced by the shipwright staff.

This is the Mayflower model which was entered by Cornwallis in the Annapolis Valley Apple Blossom Festival parade and which won first prize in the Armed Forces division. (DB-9046)

The Seamanship School staff undertook the rigging of the model, with CPO H. S. Moody and Petty Officers W. D. Scoville and F. J. Julian performing the bulk of the actual work.

The painting — a two-week job in itself — was done by Petty Officers A. R. Jeffery and R. J. Tratt.

The dimensions of the completed model were: length of hull, 11 feet, 6 inches; length overall, 14 feet, 4 inches; height (waterline to top of masts), 9 feet, 8 inches; height (road to top of masts), 12 feet, 6 inches; beam at midships section, 2 feet, 10 inches.

Carleton Band Visits Prairies

The Royal Canadian Navy's 32-piece silver trumpet band from HMCS *Carleton*, Ottawa naval division, made a smash hit in many western cities during an early summer tour through Western Ontario, Manitoba and Saskatchewan.

In each city visited the band put on a display of precision marching drill

and played music, ranging from Sousa to rock-n-roll, before audiences which were estimated to total about 30,000.

A highlight of the tour was as guest band at the 75th anniversary celebrations at Brandon, Man., where the group headed the grandstand show and received a standing ovation from the 6,000 spectators when they exchanged their caps for white ten-gallon Stetsons.

In Port Arthur the trumpeters played to 3,000 in the ball park. In Kenora they played a two-hour concert on board an excursion steamer on Lake of the Woods and later entertained 4,000 people at the local ball park, where traffic was tied up for two hours.

At Winnipeg their concert was rained out but, not to be frustrated, they held it in the drill hall of *Chippawa*, the naval division, and in the limited space played to 1,500 people.

A chain store parking lot provided the arena for 1,500 at Portage La Prairie, while the lawn in front of the Legislative buildings was the stage for presenting the concert to 2,000 in Regina.

Moose Jaw saw their greatest activity when they played to 2,000 at one concert, then held concerts at the Protestant and the Roman Catholic Old People's Homes. This was followed up in the evening by playing before 3,500 fans in the grandstand at a ball game.

Concerts before large audiences are nothing new to the trumpet band. It has performed at the Central Canada Exhibition, at the Quebec Provincial Exhibition and in most major Ontario and Quebec cities. Probably its most significant achievement was an invitation to be guest band at the Festival of Bands last year in Sarnia, Ont.

Pictured are members of the No. 41 Officers' Divisional Course held at Cornwallis. Front row, left to right: Sub-Lt. (W) E. Scott, Lt.-Cdr. J. F. MacKintosh (Course Officer), CPO A. Cochrane (Course Chief Petty Officer) and A/Sub-Lt. (W) M. T. Barryman. Back row: Instr. Lt. J. K. Lowry, A/Cd. Commissary Officer R. H. Barringer and A/Cd. Stores Officer G. J. Clark. (DB-8406)

Consisting entirely of one-valve trumpets, the band was formed in 1952, and is conducted by Lt. Gerald Heatley. Not content to stick strictly to marches, although the range of the individual trumpet is limited, the musicians developed one-part harmony and their repertoire now includes excerpts from the classics, popular songs, and selections from musical shows, as well as marches and military airs.

The program during their tour included some of the well known tunes from the Broadway show "My Fair Lady"; marches such as "Semper Fidelis", "Army and Navy", "All American", and "Thunderer"; and excerpts from the operas "Faust" and "Aida".

The trip was organized by Lt.-Cdr. Norman J. McDonald, Ottawa area recruiting officer, who was in charge. He was accompanied by his mobile recruiting staff, Petty Officers Leo Pelletier and Bob Fortier.

A portable mast was used for sunset ceremonies and Lt.-Cdr. McDonald gave running commentaries over the recruiting unit's public address system.

Advance publicity and local arrangements were in the hands of Lt. (S) John R. Sigouin, of *Carleton*.

Shown here are the officers on the Junior Officers' Technical and Leadership Course "O" which began on July 30, 1956, and completed on April 18, 1957, at Stadacona. Left to right, front row: Lt. E. L. Ritchie; Lt. (O) F. W. Stymest; Instr. Lt. J. A. Johnson (Asst. to OIC, JOTLC); Cdr. R. H. Leir (OIC JOTLC); Lt.-Cdr. (O) J A. Shee; Lt. (O) J. D. Cairney; Lt. R. Clark; Lt. A. R. Bowes and Lt. A. L. Bonner. Back row: Lt. T. C. Arkell; Lt.-Cdr. (P) C. J. O'Connell; Lt.-Cdr. (P) F. R. Fink; Lt. W. A. Byatt; Lt. (Cl.D) F. M. Bayfield-Davis; Lt. J. H. Huxtable; Lt. D. A. Avery; Lt. J. H. Ellerton; Lt. W. J. Taylor and Lt.-Cdr. (P) B. W. Mead.

Naval Cadet Tops Royal Roads List

A naval officer cadet took top honours in a class of 60 senior cadets during graduation ceremonies in May at the Canadian Services College Royal Roads.

The Prize of Honour, a pair of binoculars, was presented to Cadet Mark A. McAvity, RCN, by the then Defence Minister, Hon. Ralph Campney, inspecting officer. The award is made annually to the graduating cadet "who best

combines high standards of proficiency in each of the military, academic and sports aspects of his training."

In the academic course, Cadet McAvity won the subject prizes in history, physics, chemistry and mathematics.

Other principal senior cadet awards were as follows: Cadet M. W. Stedman, RCAF, the H. E. Sellers' Telescope, (awarded to the cadet chosen as Cadet Wing Commander in the final slate of cadet officers). Cadet Stedman also won the subject prize in English.

Cadet C. W. Hewson, Army, Ontario, the Commandant's Cup (awarded to the outstanding second year cadet for athletic ability and sportsmanship).

Cadet D. F. Demerse, RCAF, the Governor - General's Silver Medal (awarded to the cadet who obtains the highest academic standing in his second year). Cadet Demerse won the subject prizes in military studies and French.

Cadet M. H. D. Taylor, RCN, Alberta, the Lieutenant - Governor of Quebec Medal . (English - speaking), (awarded to the English-speaking cadet who made most marked progress in French during his two-year course).

Cadet G. G. Hopp, RCAF, White Rock, B.C., won the subject prizes in the senior cadet division in Engineering drawing and descriptive geometry and in economics.

Junior cadet subject prizes were won by the following naval cadets: Chemistry, Cadet K. S. MacKenzie, RCN, and French, Cadet K. G. Smith, RCN.

Cdr. Hanington Heads ND School

Cdr. Daniel L. Hanington, has taken up the appointment of Officer-in-Charge of the Navigation-Direction School at HMCS *Stadacona,* Halifax.

Cdr. Hanington has been succeeded as commanding officer of the *Iroquois* by Lt.-Cdr. Mark W. Mayo. The ship is with the First Canadian Escort Squadron, based at Halifax.

Reserve Squadron Gets New CO

Canada's first RCN(R) Air Squadron has a new commanding officer. George Ballard has been named commanding officer of VC 920, with the acting rank of lieutenant-commander (P). VC 920 attached to HMCS *York* was the first squadron to be formed in Canada.

Lt.-Cdr. Ballard succeeds Lt.-Cdr. Derek Tissington, who had command of the squadron for the past two years and who is retiring due to the pressure of his civilian occupation.

Command of the squadron passed to Lt.-Cdr. Ballard July 1. He is the third to take command since the squadron was formed in May 1953. The first was Lt.-Cdr. Richard Bunyard, who two years ago was promoted to commander and appointed training commander at *York.*

With the retirement of Lt.-Cdr. Tissington, there are only two original members of the squadron still on strength, Lt.-Cdr. Ballard and Lt.-Cdr. Cal Wilson who is first pilot.

Besides being the first squadron formed in Canada, VC 920 was the first to obtain and fly Avengers, and the first squadron (Reserve) to fly off an aircraft carrier.

The squadron consists of 87 officers, men and wrens. It has three Avenger aircraft, two Harvards and one Expeditor. There are 20 pilots in the squadron and there are nine with instrument ratings, a qualification which is rare among reserve flyers with the services.

Lt.-Cdr. Ballard was born in London, England, in September 1925 and was educated in Drayton Manor Grammar School. On graduation he entered the accounting profession and articled for 18 months, joining the service on his eighteenth birthday.

Photographed above are members of the No. 78 Petty Officers' Second Class Leadership Course which ended recently at Cornwallis. Front row, left to right: POs J. L. Bonneau, H. E. Doubleday, B. D. Lalonde, J. S. Welch, Lt.-Cdr. (E) F. J. MacKintosh (Course Officer), PO D. M. Adair (Course Petty Officer), POs D. M. Peterson, V. P. Coade and W. J. Dawson. Middle row: POs E. C. Wyatt, A. J. Skinner, A. R. Vanderberg, W. J. McDermott, G. E. Ayotte, W. G. Fenn, V. D. Veinot, K. F. Pollock, J. W. Sigalet and R N. Cole. Back row: POs R. J. Walter, C. N. Cormier, D. A. Fraser, C. O. Poole, F. I. West, R. C. Binder, G. H. Holt and L. Pearse. (DB-8707)

Twenty-two Chief and Petty Officers completed the No. 77 Chief and Petty Officers' Leadership Course at HMCS Cornwallis. They are, front row, left to right: PO S. W. Conner, CPO L. P. McRae, Petty Officers S. D. Clarke, M. R. Johnston, J. R. Kipp, Lieut. W. R. Stebbings (Course Officer), PO R. H. Dykes (Course Petty Officer), Petty Officers B. P. Hull, C. E. Flanders, C. R. Dibnah and R. C. Stainfield and CPO Peter Matiachuk. Back row: PO B. N. Paddon, W. G. Sorrell, CPO R. A. Powell, CPO W. H. Gilhooley, CPO W. S. James, PO D. P. Rave, PO R. A. Cato, CPO H. J. Law, Petty Officers H. C. Lewis, Harry Vander-Hoek, E. E. Wells and E. D. Cale. (DB-8696)

His basic naval training was done in Gosport at HMS *Vincent* and he took his gunnery course at HMS *Pembroke*, Chatham. He went to the United States for his flight training in May 1955 and flew Steerman aircraft for his primary training in St. Louis, Missouri. He then took his final course at Corpus Christie, Texas, flying Harvards. He was commissioned as a midshipman in May 1945 and won his wings in July.

He returned to England and was on hs embarkation leave when the war in the Far East ended. For the next two years he was drafting and release officer at Mersey and was released in February, 1947.

He returned to accounting and completed his articling in 1950 and qualified as a chartered accountant in 1951. He decided that North America held much promise and came to Canada in 1952.

He joined the Comptroller's Department of Imperial Oil Ltd., in 1952 and has been with the firm ever since. He is now assistant tax accountant.

He was second on the list when VC 920 was formed and has been one of the keenest pilots ever since.

Lt.-Cdr. Tissington was born in Manchester, England in 1923. He joined the Royal Air Force in 1940 and completed his elementary flying training in England. He came to Canada for his advanced flying and won his wings in Medicine Hat. He took an instructors' course at Trenton, Ontario.

Upon completion of that course, he instructed naval cadets in flying, and it was here that he first became interested in the Fleet Air Arm.

He joined a ferry command next, flying from England to the Middle East, and finally was appointed to the Far East, flying Mosquitoes.

He was released from the RAF in 1946 and came to Canada the next year. He was the first pilot to join VC 920.

Chaplain (RC) M. P. MacIsaac, who retired in June as Roman Catholic Chaplain of the Fleet, was honored at a testimonial dinner at Stadacona shortly before his retirement. During the dinner, attended by Rear-Admiral R. E. S. Bidwell, Flag Officer Atlantic Coast, and Most Rev. J. G. Berry, Archbishop of Halifax, Father MacIsaac was presented with a portrait of himself.

Captain M. A. Davidson, commanding officer of Hochelaga, is the first to give a pint of blood at a recent clinic held in Hochelaga, Montreal. Talking with him is Red Cross nurse Shirley Moiger of the Victoria and Isabella Depot. (ML-5725)

USN Chaplains Visit Ottawa

Rear-Admiral E. B. Harp, Jr., USN, Chief of United States Navy Chaplains, Captain J. L. Goldberg, USN, and Commander Richard A. Cahill, USN, conferred in June with senior chaplains of the Royal Canadian Navy in Ottawa.

The visiting U.S. Navy chaplains met with Chaplain E. G. B. Foote, Chaplain of the Fleet (P) and Chaplain Ronald MacLean, Chaplain of the Fleet (RC), at Defence Headquarters to discuss plans for the NATO Naval Chaplains' Conference which is to be held later this year in the United States.

Senior naval officers, distinguished members of the clergy and diplomatic officials attended a dinner for Admiral Harp in the Chateau Laurier on June 20.

Nine Attending Sonar Courses

Nine members of the RCN, seven of them wrens, are on a two-month course this summer at the Fleet Sonar School at Key West, Florida, where they are taking classroom and practical training sessions.

During off-duty hours, excursions to Havana, Cuba; Miami and Cypress, Fla., are on the agenda and all planned to do deep sea fishing and skin diving.

The Canadians find little difference between this southermost city of the U.S. and their own home towns, except that there are palm trees instead of maple and pine and the humidity and prices are different. The wrens are led by Sub-Lt. (W) Dorothy Gower and include Sylvia Yevremor, Joan Lock, Gloria Pippenger, Marge Cannell, Ruth Klein and Joan McKenzie. The men are Petty Officers Bud Pask and Harry Little.

Polio Shots for Armed Services

Canadian servicemen, already immunized against almost all known diseases, are to be inoculated against poliomyelitis.

A continuing plan to give all members of the RCN, Canadian Army and RCAF three shots of Salk polio vaccine is now well under way, with younger members of the three services and troops and dependents serving overseas getting priority.

Sponsored by the Inter-Service Medical Committee at National Defence

RCN PILOTS TRAIN IN USS WASP

TEN RCN PILOTS carried out angled-deck, mirror aided landing qualifications on board the U.S. Navy Carrier *Wasp* early in July off the New England Coast. The Canadians were members of VS-881 from *Shearwater,* flying American-designed and Canadian-built Tracker anti-sub aircraft.

They are the first Canadians to qualify in a USN angled-deck carrier using the mirror landing system. The equipment is similar to that in the RCN's new angled-deck carrier, *Bonaventure,* which has the double mirror landing system and a steam catapult.

The training in the *Wasp* was a prelude to landings on board the *Bonaventure.* During the American trials, one of the pilots, Lt. Peter Lavigne, made the 33,000th landing on the *Wasp* since she was recommissioned in 1951. A large cake, traditional on such occasions was cut by the New Brunswicker to commemorate the landing.

These landings were the first time the *Wasps'* new mirror landing aid was used operationally. More amateur statistics brought Lt. Lavigne's landing to an even thousand done by Canadian naval aviators on USN flight decks.

The *Wasp* is an anti-submarine warfare support carrier, flagship of Commander, USN Carrier Division 14 and, as such, is the nucleus of submarine hunter-killer operations, co-ordinating destroyers, anti-submarine aircraft and helicopters. The *Bonaventure* will have a similar role in the Atlantic Command of the RCN.

The accompanying pictures show the RCN Tracker just as it landed and Lt. Lavigne handing the first piece of his "33,000th landing" cake to Rear-Admiral B. E. Moore, on board the *Wasp,* the carrier's new mirror landing aid forming the backdrop. Left to right in the latter picture are a USN messman, Lt. Bob Forrest, RCN (Lavigne's co-pilot), Lt. Lavigne, Captain H. T. Utter, commanding officer of the *Wasp;* Rear-Admiral Moore, and Lt.-Cdr. H. J. G. Bird, commanding VS-881. The pictures are reproduced from official U.S. Navy photographs.

Headquarters, Ottawa, the program eventually will see all service personnel immunized against polio as supplies of Salk vaccine become available. The pattern is similar to that being followed in civilian circles.

To date, the majority of all serving personnel 19 years of age and under has received the first of their three shots. Immunization of all Navy, Army and RCAF personnel and their dependants, now serving overseas or scheduled to be posted outside of Canada also is well under way.

Service personnel high on the priority list for Salk shots include those serving in Europe, the Middle East, Indo-China and Korea, and aboard Royal Canadian Navy ships entering foreign ports.

Military supplies of the vaccine, obtained from the Connaught Laboratories at the University of Toronto, are being distributed to service medical officers as rapidly as possible through Central Medical Equipment Depot, Ottawa.

The decision to inoculate all service personnel against polio is a precautionary move only, as all three branches of the armed services have been relatively free of the disease.

Since 1953, when Western Canada was swept by an epidemic, only a very small number of cases of acute polio has been recorded in the services.

A serious outbreak of polio occurred on board HMCS *Magnificent* in August 1951 when she was on exercises in the Mediterranean. Seven cases occurred in a period of five days and another four occurred at the same time in HMS *Ocean* which was in company with the *"Maggie"*. Both ships were quarantined for two weeks by Maltese authorities.

Three experts in the photographic field found it difficult to make final decisions while judging entries for the second annual Royal Canadian Navy photo salon. Looking over some of the 222 entries which had been submitted by sailor-photographers, from left, are: Jack Van Dusen, picture editor of the Ottawa Bureau of the Canadian Press; noted photographer Malak of Ottawa; and H. W. (Bert) Holmes, Director of Photography for the Department of National Defence. (O-9539)

PO Eugene Hovey receives a cheque for $50 from Captain Barry German, RCN (Ret'd), of the Naval Officers' Association of Canada, as first prize for his entry "Tropical Haven" shown in the background. The NOAC also donated prizes of $25 and $10 for the pictures in second and third places.

Venture Takes All History Prizes

Following four successes in 1956, *Venture* took all ten prizes this year in the Navy League of Canada Naval History Prize competition, open to all midshipmen and cadets of the RCN.

Congratulations have been extended to the following cadets who won prizes consisting of subscriptions to the U.S. Naval Institute Proceedings. In addition to the subscriptions, the first prize winner was awarded books on naval subjects valued at $50 and the second prize winner, books valued at $25.

1. Cadet L. Marquis, Orillia, Ont., "Death of the Bismarck".

2. Cadet R. Leenaert, Belgium, "La Méditerranée au début de la II Guerre Mondiale".

3. Cadet P. W. Davidson, Montreal, Que., "Lord Anson's Voyage Around the World".

4. Cadet R. A. Morrison, Preston, Ont., "The End of a Raider".

5. Cadet A. J. Clarke, Montreal, Que., "The Escape of the Jean Bart".

6. Cadet J. A. Cantlie, Ottawa, Ont., "Submarines".

7. Cadet G. Trudel, Chigougamou, Que., "Attaques des torpilles humaines pendant le Second Conflit Mondial".

8. Cadet D. Knowles, Toronto, Ont., "Anti-Submarine Methods".

9. Cadet J. A. Robertson, Powell River, B.C., "The Development of the Engineer Officer in the Royal Navy".

10. Cadet B. Moorhouse, Montreal, Que., "Naval Mines".

Dockyard Team Contest Winner

Passive Defence first-aid teams from HMC Dockyard, Esquimalt, won three first prizes in competition at the 43rd annual field day of the Vancouver Island Branch of the Mine Safety Association.

Seven teams from the Dockyard took part in the competition.

Oshawa Conducts 'Norpac' Survey

The coastal escort vessel *Oshawa*, under the command of Lt.-Cdr. G. H. Barrick, sailed from Esquimalt Monday July 22 with scientists embarked from the Pacific Naval Laboratory to carry out an oceanographic survey in North Pacific waters.

The ship is scheduled to return from Operation Norpac on or about August 21. The *Oshawa* was to call at Kodiac, Alaska, July 31 to August 2 and again on August 11 to 14 and at Prince Rupert August 22 to 24.

The senior scientist on board for the operation is A. J. Dodimead.

This is the third successive "Norpac" survey undertaken by ships of the Pacific Command.

New XO Named To Cornwallis

Cdr. William S. T. McCully, former commanding officer of the *Gaspe* and Commander First Canadian Minesweeping Squadron, has been appointed executive officer of *Cornwallis*.

Cdr. McCully succeeds Cdr. John C. Smyth, who has been appointed to Naval Headquarters on the staff of the Vice-Chief of the Naval Staff as Naval Co-ordinator.

Electronic Approach Gear for Shearwater

The Department of Transport has awarded a contract to Sylvania Electric (Canada) Limited for equipment consisting of a new electronic flash approach system to be installed at *Shearwater*.

Commander C. A. Law, executive officer of HMCS Labrador, held an exhibition of more than 40 paintings which he completed while the ship was in Arctic waters last year. The exhibition was held at the Citadel in Halifax shortly before the ship returned to the Arctic for the fourth consecutive summer.

The first installation of its kind in Canada, the high-intensity lighting system—known as EFAS—is expected to increase flying safety and the number of all-weather flights, reduced flight delays and cancellations, and lessen air control problems. The RCN base at Dartmouth handles both military and commercial aircraft at the present time.

According to F. W. Fulle, general sales manager, lighting division, Sylvania Electric (Canada) Limited, the new Sylvania Strobeacon approach system greatly broadens the all-weather applications of an airport's existing lighting system and complements present navigational aids. EFA has excellent fog-penetrating qualities and is already in extensive use at military and commercial airfields in the United States, including New York's internationally-known Idlewild Airport.

The electronic flash approach system consists of a number of Strobeacon units in a row along the approach path leading to the runway. When in operation the synchronized Strobeacon units flash intermittently to produce a streak of lights, described as a "white-hot fireball', by one pilot, that guides planes in landing during periods of limited visibility.

The new electronic Strobeacon units will be manufactured at Sylvania Canada's plant at Drummondville, Que.

EDITOR'S NOTE

A letter has been received from Mrs. S. J. Morency, wife of Chief Shipwright Stuart Morency, *Cornwallis*, expressing the gratitude of herself and her husband for the many kindnesses shown by East Coast shipwrights and others during her husband's stay in hospital.

CPO Morency suffered a leg injury which eventually necessitated an amputation but, according to Mrs. Morency, he is making a rapid recovery. Her letter draws grateful attention to the many cards, gifts and visits and to the monetary assistance given by fellow shipwrights.

THE NAVY PLAYS

Softball Among The Boulders

"All work and no play . . ." a cliche perhaps, but true. In the *Labrador* play is occasionally provided by sending parties of men ashore in the ship's boats for recreational periods. A typical example would be the recent visit to the harbour on the coast of Labrador north of the 55th parallel. Two parties of officers and men were landed, one to play softball and the other to try its skill on the elusive Atlantic salmon. For most of the men this was their first visit to dry land in 14 days.

The softball players completed their game on a boulder-strewn hillside where an infield hit could easily become a home run if hit towards the right boulder. The fishermen finished the day with no fish and no injuries, which can be classed as a successful day in this part of Canada.

In addition to recreation, work went on aboard ship and ashore. The underwater demolition unit led by Lt.-Cdr. Ben Ackerman spent the day from breakfast time onwards clearing a beach of rocks and underwater obstructions to permit landing craft to discharge cargo. Lt. N. S. Norton and a party of hydrographers surveyed and sounded parts of the harbour to bring the existing charts of the area up to date. Men aboard ship rushed to complete the many tasks which could only be done when the ship was at rest.

A day of recreation for some of the ship's company, but also a day of work for many, for this isolated patch of civilization is the site of an early warning radar station keeping a constant watch in the chain guarding this continent—J.L.C.

Watson Star Of Track Meet

HMCS *Stadacona* captured the annual Atlantic Command Track and Field championships in early July when they racked up a total of 51 points.

Tied for second place, with 40 points each, were UNTD Cadets and *Cornwallis,* while *Shearwater* came next with 27 points and HMC Ships trailed with 17.

Despite heavy rains, a total of 16 events were run off, two of them specials not listed in the teams standings. These were a wrens' 75-yard dash, and a veterans' race.

Although *Stadacona* won the meet, *Cornwallis,* represented by Inst. Lt.-Cdr. Peter Watson, stole the show. The versatile instructor officer entered all the running events and came first in the mile, the 880-yard dash and the 220-yard dash. He also took part in two winning relays and came fourth in the 100 and fourth in the 440. He was awarded the high aggregate and the outstanding performer award.

Rear-Admiral R. E. S. Bidwell, Flag Officer Atlantic Coast, presented the prizes.

RCNSA Sponsors Sea Cadet Regatta

Ontario Division of Ottawa's *Falkland* Sea Cadet Corps won the honours in the regatta July 14 on Dow's Lake which involved dinghy sailing, canoe tilting and war canoe races.

A trophy, donated by the officers' mess of HMCS *Bytown* (Naval Headquarters), was presented by Rear-Admiral H. S. Rayner, Chief of Naval Personnel. The regatta was sponsored by the Ottawa Squadron of the Royal Canadian Navy Sailing Association and was the first of its kind in the Ottawa area. The trophy is for annual competition among Sea Cadets in Ottawa.

Individual prizes were presented by Cdr. W. R. Inman, commanding officer, HMCS *Carleton.* The various events included: three dinghy races (nine competing in each); canoe tilting and a war canoe race. The other divisions taking part were *Quebec* and *Magnificent.*

Cornwallis Beats Halifax Eleven

In soccer, *Cornwallis* scored second-half goals to blank Keiths of Halifax, 3 to 0, in their second game in two weeks, and put the sailors in the second round of the Nova Scotia-Dominion Cup soccer playoffs. In the first game they tied Keith's 3-all.

Possible Scored In N.S. Match

Navy Marksmen were active in the Nova Scotia Rifle Association meet held at the Bedford ranges. CPO Doug Clarke registered a "possible" in the Merchants Cup at 300 yards. The cup was won by a Halifax marksman with CPO Clarke coming 12th in the match.

In the Canadian Infantry Association Match, CPO Howie Oliver lost out after a tiebreaker to PLF marksman O. R. Barrett.

Navy Marksman Wins Cup, Medal

Navy marksman Ldg. Sea. Harry Wells won the first stage of the Lieutenant-Governor's match in the British Columbia ·303 rifle championships at Blair Range, North Vancouver.

Ldg. Sea. Wells, with 145-150, tied with two others but won a following shoot-off. He won the Douglas Challenge Cup and the BCRA silver medal.

A navy team also won the Tyro Match with a score of 736 and the Galletely match at 187.

Navy Does Well In Track Events

Atlantic Command track and field enthusiasts retained honours and set some marks in two of the Maritime's biggest events, the Highland Games at Antigonish, N.S., and at the Maritime Track and Field Meet held in Summerside, P.E.I.

At the Highland Games, the 95th annual clan gathering, the navy team took first place with 38 points, 12 more than its nearest rival, St. Mary's of Halifax and 14 ahead of the Antigonish Highland Society. An Eastern Command Army squad came fourth with 22 points.

In the senior 100-yard, Knight of Navy took the first heat and Cadet Manderson the second. In the 220, Watson came second in the first heat and Manderson scored in the second heat. Watson won the 440, and Knight came second in the 100-yard final, Montgomery second in the 880-yard final, and Lee third in the Mile Run.

The 220-yard final saw Manderson first and Watson third. Navy's Curtis tossed the javelin to a winning 150·9¾, and Ling threw the hammer 120 feet for a win. In other events, Asbury was third in the broad-jump, Moore second in hop, skip and jump and Navy second in the mile relay.

Meanwhile at Summerside Watson took the 880 in 1·57⅞, a new Maritime mark, and Navy captured the meet

with 58 points to take the J. B. McNair Trophy. Navy's Bob Lee came second in the mile run.

Other results by Navy at Summerside were: Manderson first and Knight second in the 100-yard; 220, Manderson first, Watson second; 440 Watson first, Lebrosse third; 880 Watson first, Montgomery third; mile run Lee second; five mile run, Verran third; mile relay, Navy "A" first, Navy "B" second; 120-yard hurdles Asbury second.

In field events Ling threw the 16-pound hammer 119 feet one inch; Moore won the hop, step and jump; Curtis tossed the javelin 148 feet 10 inches, Asbury came third in the running broad; Ling was second in the 16-pound shot-put, and Murphy was third in the pole-vault.

RETIREMENTS

CPO ALBERT HOWARD POTTER, 39, C1GI4, Craigmyle, Alberta, joined January 12, 1936; served in *Naden, Vancouver, Fraser,* HMS *Pembroke, Skeena,* HMS *Excellent, Ottawa, Stadacona, Annapolis, Cornwallis, Protector, Uganda, Warrior, Niobe, Magnificent, Quebec;* awarded Long Service and Good Conduct Medal; retired May 1, 1957.

CPO ALFRED JOHN ANDREWS, 38, C1VI4, Calgary, joined May 10, 1937, served in *Naden, Stadacona,* HMS *Victory,* HMS *Enterprise,* HMS *Curacao, St. Laurent,* HMS *Dominion, Saguenay, St. Hyacinthe, Givenchy, Niobe, Haida, Peregrine,* HMS *Puncher, Antigonish, Cayuga, Sioux, Ontario, Venture, Cornwallis;* mentioned in despatches; awarded Long Service and Good Conduct Medal; retired May 9, 1957.

CPO LORENZO JOSEPH LaFRENIERE, 44, C1LR3, Little Current, Ont., joined May 8, 1933; served in *Stadacona, Saguenay,* HMS *Dragon, St. Laurent,* HMS *Pembroke I,* HMS *Pembroke II,* HMS *Comet,* HMS *Foxhound, Restigouche, Skeena, Gaspe,* DEMS, NCSO *Quebec, Venture, Prince David, Givenchy, Cornwallis, Bytown, Iroquois, Niobe,* HMS *Excellent, Donnacona, Shearwater, Haida, LaHulloise, Micmac, Carleton, Bytown;* awarded Long Service and Good Conduct Medal; retired May 13, 1957.

CPO DOUGLAS BANKS BACKMAN, 37, C1OI4, Halifax, joined May 22, 1937; served in *Stadacona, St. Laurent, Skeena, Assiniboine, Niagara, St. Francis, Avalon, Napanee, Cobalt, Saskatchewan, Thorlock, Peregrine, Carleton, Haida, Iroquois, Cornwallis, Huron, Prestonian, Labrador;* awarded Long Service and Good Conduct Medal; retired May 21, 1957.

CPO REGINALD FREDERICK THOMPSON, 37, C1RI4, Sheffield, England, joined May 10, 1937; served in *Stadacona,* HMS *Victory; Ottawa, Saguenay, Skeena, Assiniboine, Venture, Mahone, St. Hyacinthe, Bytown, Shawinigan, St. Laurent, Avalon, Niobe,* HMS *Ferret, Leaside, Lanark, Cataraqui,* Albro Lake naval radio station, *Magnificent, Micmac, Cornwallis;* awarded Long Service and Good Conduct Medal; retired May 9, 1957.

CPO HARRY LANE, 49, C1EM3, of Hamilton, Ont., joined May 16, 1932; served in *Stadacona, Festubert, Champlain,* HMS *Drake,* HMS *Pembroke,* HMS *Crusader, Ottawa, Skeena, Avalon, Peregrine, Star, Niobe, Magnificent, Portage, Prevost, Hunter, York;* awarded the British Empire Medal in January, 1945, awarded Long Service and Good Conduct Medal, retired May 15, 1957.

CPO GEORGE JAMES CORP, 44, C1OT4, of Hamilton, Ont., joined May 8, 1933; served in *Stadacona, Saguenay,* HMS *Curacao,* HMS *Victory, Assiniboine, St. Laurent, Cornwallis, Niobe, Huron,* HMS *Glory, Warrior, Ontario, Rockcliffe, Athabaskan, Crescent, Naden;* awarded Long Service and Good Conduct Medal; retired May 7, 1957.

CPO WILLIAM BURPEE DODSWORTH, 41, of Amherst, N.S., joined May 17, 1937; served in *Stadacona, St. Laurent, Skeena, Assiniboine, Naden, Hochelaga, Rimouski, Brandon, Blairmore, Niobe, Ottawa, Avalon, Cornwallis, Thetford Mines, Fort Frances, Scotian, Micmac, Iroquois,* RCNAS Dartmouth, *Magnificent, Micmac, New Liskeard, Flamborough Head, Cape Breton, Huron;* awarded the British Empire Medal in June, 1944; awarded Canadian Forces Decoration; retired May 21, 1957.

CPO JAMES BOYLE, 55, of Cumberland, N.S., joined December, 1920, and took discharge in December, 1927. Re-entered September 6, 1939; served in *Aurora, Guelph, Patriot,* HMS *Vernon, Naden, Patrician, Thiepval,* HMS *Revenge, Stadacona, Fraser, Ottawa, Cornwallis, Niobe, Huron, J-3329, Magnificent, Swansea;* awarded Canadian Forces Decoration and Clasp; retired May 9, 1957.

CPO FREDERICK WILLIAM BIGNELL, 37, of Jollimore, N.S., joined May 31, 1937; served in *Stadacona, St. Laurent, Skeena, Hamilton, Q-086, Cornwallis, Iroquois, Scotian, Magnificent, Wallaceburg, Quebec;* awarded Long Service and Good Conduct Medal; retired May 30, 1957.

CPO NEILL ARGUE McLEOD, 40, of Tilbury, Ont., joined June 1, 1936; served in *Naden, Fraser, Stadacona, Ottawa, Prince Henry, Cornwallis, Micmac, Givenchy, Ontario; awarded* Long Service and Good Conduct Medal; retired May 31, 1957.

CPO HENRY ALEXANDER ROGERS, 43, of Okanagan Valley, B.C., joined May 13, 1933; served in *Naden, Skeena, St. Laurent, Stadacona, King's, Givenchy,* HMS *Nabob, Peregrine, Cornwallis, Ontario, Royal Roads, Quebec;* awarded Long Service and Good Conduct Medal, retired May 12, 1957.

CPO LOUIS ARMAND CASSIVI, 47, C1ER4, of Gaspé, Quebec, joined June 3, 1936; served in *Stadacona, Saguenay, Naden, Columbia, Cornwallis, Prescott, Niobe, Peregrine, Scotian, Warrior, Iroquois, Magnificent, Portage;* awarded the Long Service and Good Conduct Medal; retired June 2, 1957.

CPO WILLIAM DONALD CLARK, 37, C1AT4, of Belleville, Ont., served with the RCAF from May 1937 to November 1946, joined RCN December 4, 1946; served in *York, Naden,* RCNAS, *Niobe,* HMS *Condor, Stadacona, Shearwater, Cornwallis, Magnificent;* awarded Canadian Forces Decoration; retired June 17, 1957.

PO ALFRED YOUNG, 38, P2PH3, of Vancouver; joined January 8, 1937; served in *Naden, Fraser, Ottawa, Stadacona, Ambler, Macsin,* Manning Pool Montreal, *Barrie, Avalon, Minas, Melville, Cornwallis, Ontario;* released on medical grounds May 27, 1957.

LDG. SEA. CYRIL ST. CLAIRE PEARCE, 41, LSET1, of Halifax; joined May 10, 1937; served in *Stadacona, St. Laurent, Skeena, Saguenay, Prince David, Niobe,* HMS *Vernon, Gatineau, Avalon, Protector, Peregrine, Cornwallis, New Liskeard, Bytown, Donnacona, Nootka, La Hulloise, Micmac, Queen Charlotte, Granby;* awarded Canadian Forces Decoration; retired May 29, 1957.

CPO GEORGE OLIVER SWELL, 42, C1GI4, of Underhill, Man.; joined October 11, 1932; served in *Naden, Skeena,* HMS *Pembroke,* HMS *Comet, Restigouche, Stadacona, Saguenay, Cornwallis, Saskatchewan, Niobe, Peregrine, Queen, Ontario, Chippawa, Star;* awarded Long Service and Good Conduct Medal; retired June 3, 1957.

CPO WILLIAM McCONNELL RYE, 44, C1EM3, of Montreal; joined September 22, 1933; served in *Stadacona, Champlain, Saguenay,* HMS *Drake, Skeena, Venture, Niagara, Annapolis, Cornwallis, Hochelaga, Stormont, Scotian, St. Thomas, Peregrine, Victoriaville, Magnificent, Shearwater, Niobe, Bytown;* awarded the Long Service and Good Conduct Medal; retired June 23, 1957.

CPO Charles Church returns to Halifax where he is greeted by his wife after making his cross-Atlantic voyage aboard the Mayflower II this spring. CPO Church, who is serving at the Mechanical Training Establishment at Stadacona, was the only Canadian to make the trip. He represented the Royal Canadian Naval Sailing Association.

LOWER DECK PROMOTIONS

Following is a further list of promotions of men on the lower deck. The list is arranged in alphabetical order, with each man's new rating, branch and trade group shown opposite his name.

ABBOTT, Owen F.....LSPW1
AIREY, Ronald K.....LSAA1
AITKEN, Herbert L.....LSCS2
ALAIN, Yvon J.....LSCS2
ALDRIDGE, Harold.....P2RW3
ALEXANDER, Alan C.....P2VS2
ALEXANDER, Jackie M.....P2EM2
ALLEN, Ray W.....LSBD2
AMOR, Charles E.....LSCS2
ARMSTRONG, George E.....LSRP1
ARNOLD, Emerson G.....LSMA2
ARNOLD, George E.....LSEA2

BADMINTON, Eric C. LSAP2
BATES, Walter H.....P1CK3
BATTLE, Jesse F.....P1MA4
BEACOCK, Bruce P.....P2MA2
BEAL, Ronald E.....LSCS2
BELL, David W.....LSTD2
BELL, Dean P1CK3
BELLEROSE, Jack H.....LSAF2
BIGONESSE, Rheal L. LSPW2
BRADFORD, Royce I. P1PW3
BROSOSKY, Douglas R. LSCS2
BROUSSEAU, Hubert J. LSQM1
BUCHAN, Emmanuel F. LSNS2
BURGESS, Robert J. C1WR4
BURSEY, Eric V.....LSAP2
BUTLAND, Lloyd A.....LSMA1
BYRNE, William G.....LSMO2

CAIRNS, William S.....LSCK2
CAMPBELL, Albert L.....LSMA2
CAMPBELL, Ralph F.....LSAP2
CAMPBELL, William A.....LSNS2
CARMICHAEL, Charles A.....LSTD2
CARTWRIGHT, David M.....LSCS2
CASSWELL, George W.....C20T4
CATTON, Gordon F.....LSAF2
CHALK, John E.....C2ST4
CHAMBERS, Francis J.....P2ED3
CHANDLER, Roderick J.....P1EF4
CLOUSTON, Wesley J.....P2RN3
COCHLAN, Christopher.....P1LA3
COMEK, James V.....LSLR1
COOK, Rodney O.....LSAW1
COSTELLO, Francis L.....LSQM1
COURNOYEA, John R.....LSCS2
CRUMB, Richard G.....LSAW1
CUBBON, Robert R.....LSNS2
CULLEN, James A.....LSEA2
CURRIE, Rupert F.....C2ST4

DALGLEISH, Edward T.....P1RR3
DALZELL, Eric T.....P2ED3
DASCHUK, Peter LSVS2
DAUBENY, James N.....LSEA2
DEASON, Duane R.....LSBD2
DELASALLE, Louis E.....P2BD3
DEMONT, Malcolm L.....LSAP2
DICKSON, Cameron S.....LSBD2
DONALDSON, Edward F.....LSAA1
DOUCET, Frank J.....LSCS2
DOYLE, Stephen C.....LSAP2
DRESSELL, Roderic C.....P2NS2
DROESKE, Milton H.....P1AT4
DUSSAULT, Pierre J.....P1EF4

EMBLEY, Geoffrey.....P1ET4
EVANS, Peter J.....LSMA1

FAITHFULL, George D.....LSEM1
FERRAND, Richard J.....LSAP2
FISHER, Gordon W.....P2RN3
FITZ-PATRICK, Donald J.....LSQM1
FOLLETT, George J.....LSAA1
FORBRIGGER, John S.....P2NS2
FOY, Edward A.....LSBD2
FRANCHE, Camille J.....LSNS2
FUNK, Leslie L.....LSSW1

GEORGE, Stanley.....LSCS2
GIBBS, Donald B.....LSBD2
GIBSON, Kenneth A.....LSEM1
GILLIE, LaVern L.....LSSW1
GIRARDIN, Harold R.....LSRP1
GOMES, Stanislaus J.....LSCR1
GORMAN, Edward D.....LSAR2
GOVAN, Brian F.....P2AW2
GRAHAM, Leslie V.....P2CV2
GRANT, Charles R.....LSAA1
GRAY, Kenneth J.....LSAA2
GRIST, Robert T.....LSMA2
GRITTEN, David H.....P2MA3

HALL, Robert F.....P2RR3
HAMILTON, Robert J.....P2EG3
HARLING, William T.....P1RT4
HARKER, John E.....LSAP2
HARTEN, Emerson G.....LSAM2
HASKELL, Robert W.....LSEA2
HEALEY, John E.....LSTD1
HENDY, Edward LSCK2
HILL, Bruce W.....LSSW1
HOPKINS, James E.....LSEA2
HOPPE, Donald E.....P2SW2
HOWARD, Robert H.....P2PW2
HUDSON, Thomas W.....P1NS3
HUFFMAN, Paul T.....P2ED3
HUMPHREYS, Howard A.....P2AW2

JAMES, Melville W.....LSRT2
JARVIS, Ernest E.....LSNS2
JOHNSON, George.....LSCS2
JOLY, Jean-Jacques P1PW3
JUDSON, Vernon E. C2WR4

KENDRICK, Michael J.....P1TA4
KENYON, Gerald D.....LSTD1
KING, Harold LSRP1
KING, Robert E.....LSRP1
KINGSTON, John E. P2GA3
KINRADE, Merlyn H.....LSQR1
KITCHEN, James.....P1ET4
KRAMP, Lloyd J.....P1PW3
KRYS, Henry H. P1AT4
KUSHNER, Francis J.....C2NS3

LASAGA, Hubert I.....P2CK2
LAVIGNE, Charles E.....P2AW2
LAVIOLETTE, Maurice V.....LSCS2
LEE, Rowland A.....LSBD1
LEE, Trevor E.....P1AW3
LETISSIER, Maurice C. LSNS2
LEWIS, Alan F.....LSQM1
L'HEUREUX, Georges J.....LSAA1
LILLY, Leroy T.....LSAP2
LLOYD, Melvin W.....LSPW2

MacKAY, Murray A.....LSRP1
MacMILLAN, Charles E. P2RR2
McCANN, James T.....LSCR1
McCARRON, Francis J. P1HA3
McCLANAGHAN, Charles E.....LSRC1
McFADDEN, Norman P.....LSRT3
McGAHAN, Robert P1PW3
McGHEE, William R.....LSSW2
McGUIGAN, Edward H. LSAW2
McKISSOCK, Harold J.....LSSW1
McRAE, Angus A.....LSCS2
McWILLIAMS, Archie G.....LSAW1
MALPAGE, Edward J. LSRP1
MARCUS, Robert C.....LSVS1
MARKS, James R.....P1ET4
MARSHALL, Donald V.....LSAP2
MARSTERS, Ashley C.....LSAO2
MATHISON, Darwin L.....LSCV1
MEE, Gordon V.....LSSW1
MERRILL, Bryce R.....P2NS2
MIDDLETON, Roy B.....LSAA1
MILKS, Donald E.....LSAW2
MONAHAN, Robert J.....P1EA4
MONTAGUE, Roger.....LSBD2
MOORE, Clifford A.....LSAR2
MOSHER, Harold G.....P2RN3
MUIR, William G.....P1RA4
MURRAY, Kenneth J.....LSLR1

NICHOLSON, Douglas C.....LSRA3
NOLAN, Albert B.....LSAW1

ODLAND, Thomas W.....LSAF2

PARADIS, Melvin D.....LSAA1
PARKHILL, Alexander J.....LSAM2
PEARCE, Bernard L.....P1SW3
PENCHOFF, Peter P1CK3
PERELMUTTER, Morley L.....C2WR4
PETIPAS, John.....LSTD1
PETROCK, Peter J.....LSTD2
PICKLES, Donald A.....LSNS2
PICKTON, Clifford J.....P2RW3
PIELAK, Frank.....LSCS2
POWELL, Albert E.....LSRT2
PRETE, Edmund F.....P2RS3
PUBLICOVER, Donald S.....P2CV2
PYE, Terrence N.....LSBD2

RAYMENT, Lloyd F.....LSCV1
REDDIN, John C.....LSPR2
REEVES, Ronald F.....LSCS2
RICHARDS, Leslie F.....LSRC1
RICHARDSON, Derald J.....P1SW3
RICHES, Ronald H.....LSAW2
RIGBY, William J.....LSCV1
ROBERT, Armand J.....P2PW2
RYAN, James M.....P2BD3

SACHETTI, Ronald.....LSCS2
SALMOND, Robert L.....P2PW2
SALSMAN, Melvin H.....LSEA2
SALTER, Earl A.....LSSW2
SANDERSON, Donald E.....P1RT4
SAUDER, Wilton H.....P1NS3
SEDDON, Frank LSCV1
SEXAUER, James G.....C2NS3
SHAW, Ronald W.....LSEA2
SHEA, Robert R.....LSRT2

SHEWCHUK, William J.....P2SW2
SHOWELL, Sydney J.....LSAA1
SMILEY, Roderick G.....LSAP2
SMITH, Donald W.....LSVS2
SMITH, John B.....LSQM1
SMOTH, Peter K.....P2AW2
SNIDER, Kenneth LSRP1
SOWCHUK, Alexander P1ET4
STAUBER, Kenneth H.....LSEM1
STEPHENSON, Stanley.....LSCD1
STEVENS, Ronald M.....LSMA2
STEWART, Ronald R.....P1ET4
STINSON, Douglas R.....LSNS1
STONE, James H.....P2AF2
SURGENT, James E.....LSEM1

TAKAOKA, James K.....P2MA2
THIBAULT, Onias J.....P1RT4
THIBAULT, Anthony J.....LSAR2
THOMAS, Elwyn M.....LSCR1
THOMLINSON, Russel E.....LSSW1
TOURANGEAU, Marcel J.....LSSW1
TRUDEL, Rene J.....P1AW3
TURGEON, Gilles J.....LSAR2

VERGE, Albert J.....P2PW2

WALLACE, Lloyd M.....C2NS3
WALTERS, William R.....P1SW3
WATSON, Jack E.....P1ED4
WAUTHIER, Victor M.....LSMA1
WEBBERLEY, Robert B.....P1ET4
WELLS, Eric L.....LSAA2
WELLS, John R.....LSCS2
WEST, Norman L.....P1MA3
WILKIE, James D.....LSAP2
WOOLGAR, Donald S.....LSTD1

YOUNG, Pelham P.....LSQM2

RCN (R)

ABLONCZY, Steve P.....ABAF1
ACHEN, Margaret.....WACO(R)S
ANDERSON, J. C.....C2AT4
ANDERSON, Mildred Sybil.WAWR(R)S
ASSELIN, Jacques A.....AB(NQ)S

BAIRD, Charles E.....ABARS
BARRETT, Lornel Charles.....LSQMS
BATES, Joan A.....C2CR3
BELAND, M. M. T.....WASS(X)S
BISHOU, Michael Joseph.....ABEMS
BOISSEAU, Joseph P.....P1RD3
BONDY, Robert G.....P2SH2
BULL, Robert I.....ABLMS
BURTON, Helen I. L.....WLSA(X)2
BUTLAND, Leonard.....P2NS2
BRUSSE, H. A.....LSQMS

CAINE, Terry R.....ABLMS
CAMERON, Phyllis A.....WACO(R)S
CAPRIOTTI, William J.....P2AAS
CARRIGAN, Darrell P.....AB(NQ)S
CASE, Gary Grant.....ABCR1
CRESSMAN, Gladys N....WP2SV(X)4

DALY, Samuel.....C2ER4
DAL, Charles E.....LSTDS
DRISCOLL, John W.....P1SH2
DUNDAS, Barry P.....ABCR1

EVANS, Georgina M.....WA(NQ)S
EWING, William L.....LSAR1

FAIRHEAD, Richard G.....ABAFS
FAST, Gladys Margaret....WACO(T)S
FAUBERT, Francis.....ABCR1
FENERTY, Morris G.....AB(NQ)S
FRY, John Fred.....ABEMS
FUDGE, John.....P1SH3

GALATA, Victor.....ABBD1
GAULT, Marilyn F.....WA(NQ)S
GENIK, John H.....P2NS2
GODERRE, Robert.....ABLMS
GRAVES, Harold S.....P1CR3

HANEY, Joan M.....WLME(X)2
HANSON, Harold J.....P2QR1
HEIKKINEN, Frederick.....ABARS
HELLSTROM, Greta.....WASS(X)S
HENDRY, Jessie.....WA(NQ)S
HENDRY, Margaret B.....WACO(R)S
HILL, Edward N.....P1SH2
HOOK, Walter Carl.....P2EM2
HOOPER, Paul A.....LSAAS
HRANKA, Cyril F.....P1ER4
HUDECEK, Emil.....LSSW1
HUGGER, Rose Anne.....WASS(X)S
HUGHES, Shirley J.....WAWP(R)S
HUNT, Robert Nelson.....P1SH2

JAEGER, Albert J. W.....C1ER4
JAKUBIC, Bernice.....WA(NQ)S
JEFFERSON, Floyd Dale.....ABEMS
JEFFS, William R.....C1MS3
JOHNSON, Therese A.....WAPR(R)S
JONES, Leslie F.....C2MM3
JOY, Cecil M.....LSQMS
JUNG, Laion.....WA(NQ)S

KAY, Robert L. .....P1SH2(W)
KENNEDY, Iris.....WASS(X)S
KILPATRICK, Ross S.....P2BD3
KING, Jean Veronica.....WASS(X)S

LACHAPELLE, Marie H...WLME(X)4
LARDNER, Peter.....LSEM1
LEFEBRE, Joseph P.....ABLMS
LEVEY, Herbert W.....LSEM1
LONDON, John.....P2AF2
LYNCH, Patricia A.....WACO(R)2
LYON, William S.....ABLMS

MACKIE, L. J.....ABTDS
MACDONALD, Cyril E.....C1MR3
MAHONEY, Douglas B.....ABAW1
MARTELL, Walter.....P2TD2
MAURICE, Lucille R.....WLCO(R)2
McCARVILL, Ester S. Joan..WA(NQ)S
McCONNELL, Herbert.....P1SH2
McDERMOT, Francis.....P1SH3
McDONALD, William.....WSVS1
McKELLAR, Kathryn M....WLCO(T)S
McLEAN, Robert A.....LSQMS
MIRTLE, Douglas I.....LSBD2
MORRY, Ursual M.....WACO(R)S

NEBISUK, Gordon H.....P2VS2
NEUDORF, Martha.....WACO(R)1

O'FRENCHUK, Mary L.....WA(NQ)S
OTTIE, Sally A.....WACO(T)S

PAQUAY, Romain J.....P2BD3
PARATT, William M.....P1SH2
PAULSON, James S.....AB(NQ)S
PORTER, Joan M.....WACO(R)S

REICHEL, Johann.....P1MA2
ROL, Gerald M.....LSOM2
ROSS, Wendy, Forbes.....WA(NQ)S
ROURKE, Robert C.....C2SH4
RYAN, Roger G.....ABAW1

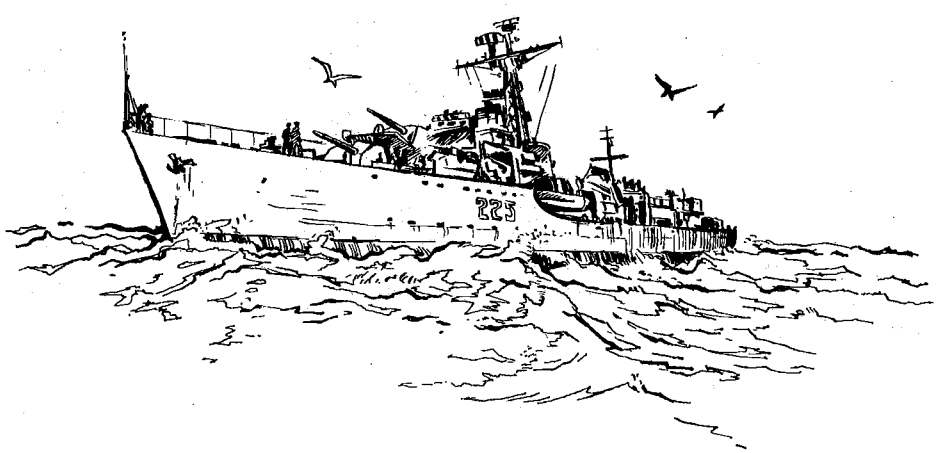
SALMELA, Eila L.....WACO(R)S
SALSBURY, Ralph.....LSCB1
SCOTT, Donald B.....ASLMS
SIGRIST, Gerald W.....P2CR2
SPOFFORD, Paul F.....LSMA1
STARMER, J. S.....WLSD2
STARR, Gregory A.....LSEM1
STEELE, Arlie J.....WACO(T)S
STORY, Vernon W.....ABAW1
SUTTON, Katherine C.....WAME(X)S

TAIT, Kenneth J. G.....LSQM1
TAPIO Gertrude L.....WP2SA(X)4
TESSIER, Ralph Joseph.....LSSW2
THORNTON, Joan.....WA(NQ)S
THORTON, Patricia M.....WASS(X)2
TOBIAS, Joseph S.....ABNS1
TWEED, Hazel V.....WAS
TYSON, Lincoln W.....P1TD1

VALENTINE, Phyllis L....WACO(R)S

WATSON, Kenneth D.....P2NS2
WITHENSHAW, D. E.....WP2SS(X)4
WOOD, John D.....P1MM2
WOODWARD, Elizabeth J...WAME(X)S
WYNNE, Donalda.....WACO(R)S

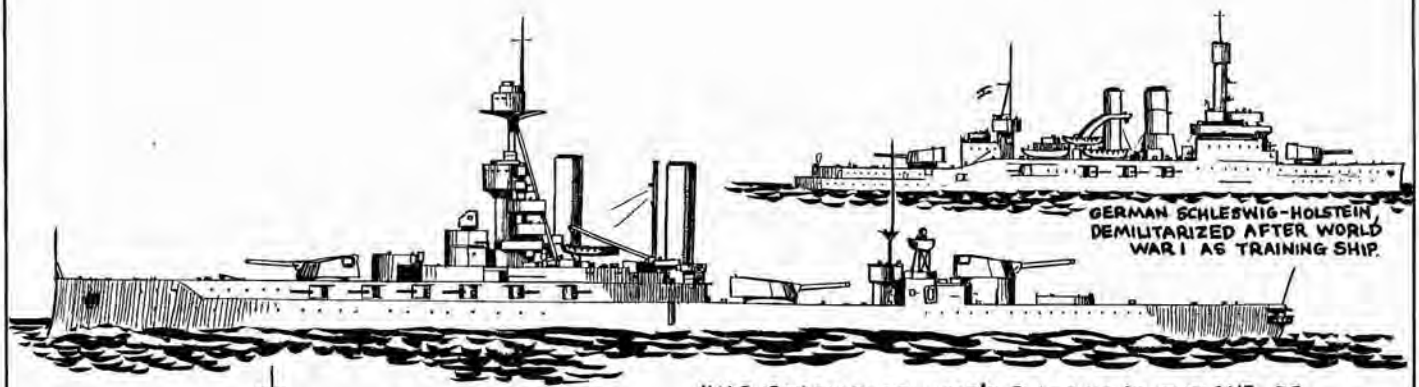
YORK, Audrey M.....WLSS(X)2



Naval Lore Corner

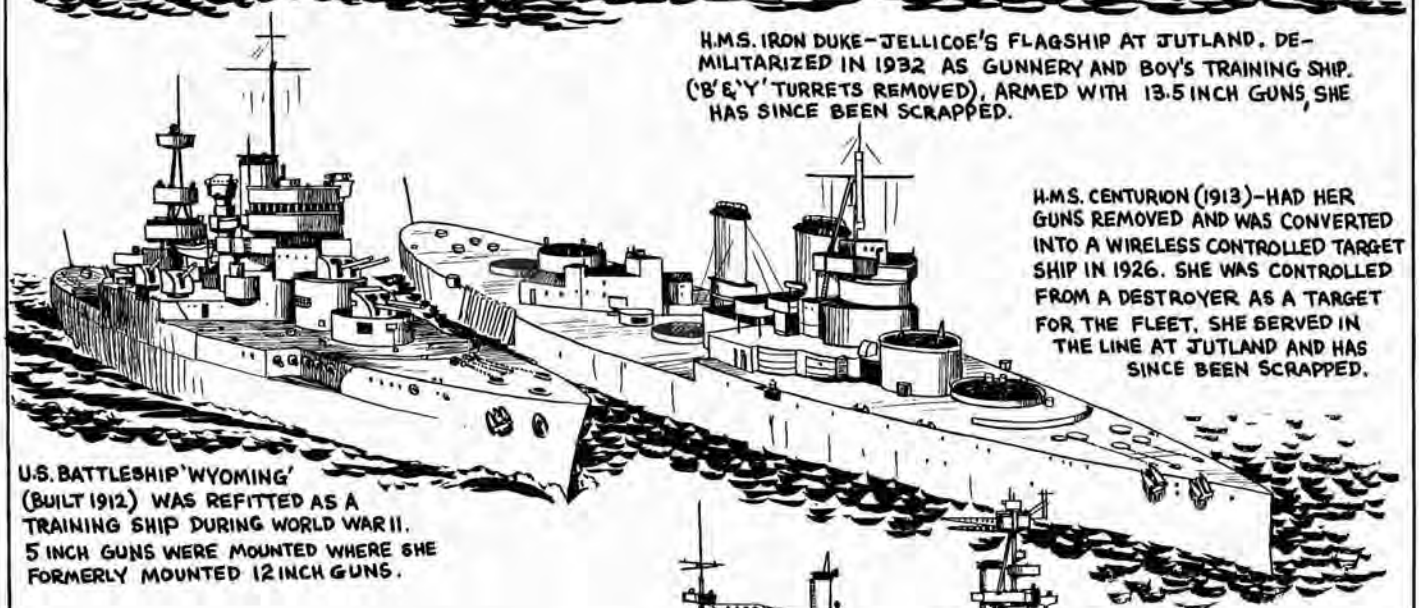
Number 50

Battleships in Retirement



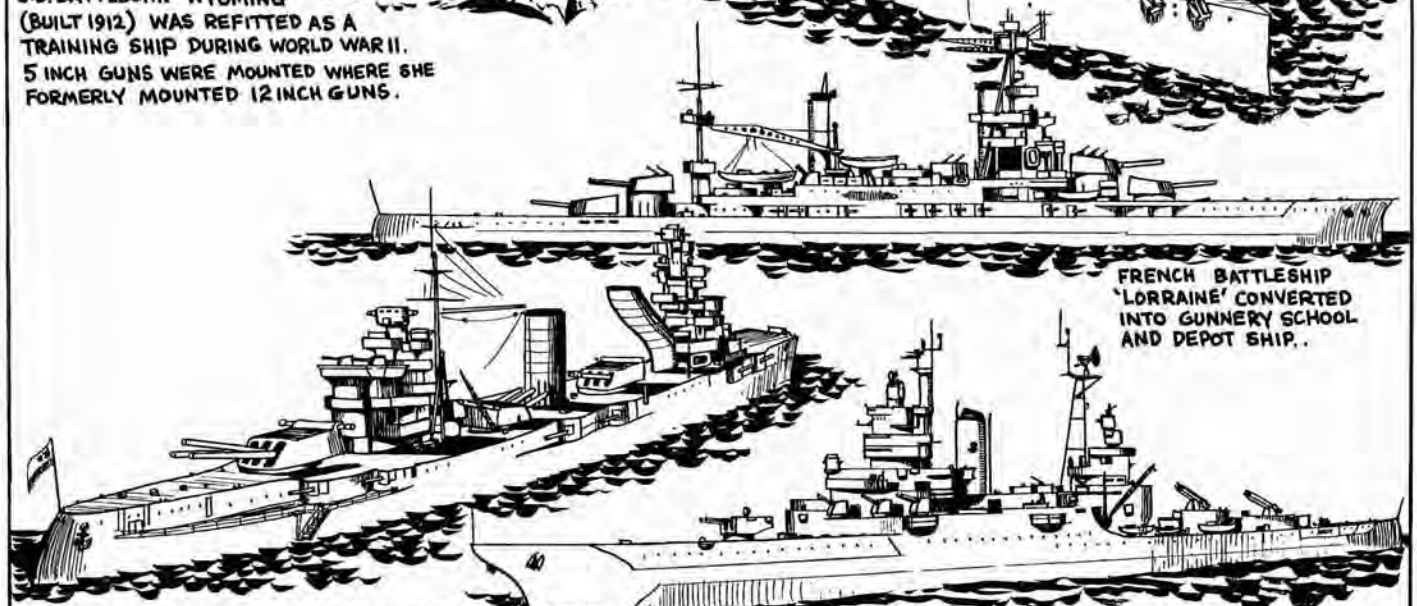
GERMAN SCHLESWIG-HOLSTEIN, DEMILITARIZED AFTER WORLD WAR I AS TRAINING SHIP.

H.M.S. IRON DUKE – JELLICOE'S FLAGSHIP AT JUTLAND. DE-MILITARIZED IN 1932 AS GUNNERY AND BOY'S TRAINING SHIP. ('B' & 'Y' TURRETS REMOVED), ARMED WITH 13.5 INCH GUNS, SHE HAS SINCE BEEN SCRAPPED.



H.M.S. CENTURION (1913) – HAD HER GUNS REMOVED AND WAS CONVERTED INTO A WIRELESS CONTROLLED TARGET SHIP IN 1926. SHE WAS CONTROLLED FROM A DESTROYER AS A TARGET FOR THE FLEET. SHE SERVED IN THE LINE AT JUTLAND AND HAS SINCE BEEN SCRAPPED.

U.S. BATTLESHIP 'WYOMING' (BUILT 1912) WAS REFITTED AS A TRAINING SHIP DURING WORLD WAR II. 5 INCH GUNS WERE MOUNTED WHERE SHE FORMERLY MOUNTED 12 INCH GUNS.



FRENCH BATTLESHIP 'LORRAINE' CONVERTED INTO GUNNERY SCHOOL AND DEPOT SHIP.

RUSSIAN BATTLESHIP 'PETROPAVLOVSK' BADLY DAMAGED FORWARD BY AIR ATTACK IN 1941 REMAINS IN COMMISSION AT KRONSTADT AS A DEPOT SHIP MINUS HER FORECASTLE.

U.S.S. MISSISSIPPI, CONVERTED FROM BATTLESHIP TO AN EXPERIMENTAL GUNNERY SHIP IN 1947 AND LATER FITTED AS EXPERIMENTAL ROCKET AND GUIDED MISSILE SHIP. SCRAPPED IN 1956...

J.M. THORNTON

11,000—8-57
N.P 575-1641

OTTAWA
EDMOND CLOUTIER
Printer to the Queen's Most Excellent Majesty
1957