



THE
Commissioning
OF
HMCS MACKENZIE

AT CANADIAN VICKERS LTD., MONTREAL, P.Q.
OCTOBER 6, 1962



It is a particular pleasure for me to welcome Her Majesty's Canadian Ship *Mackenzie* into the Royal Canadian Navy.

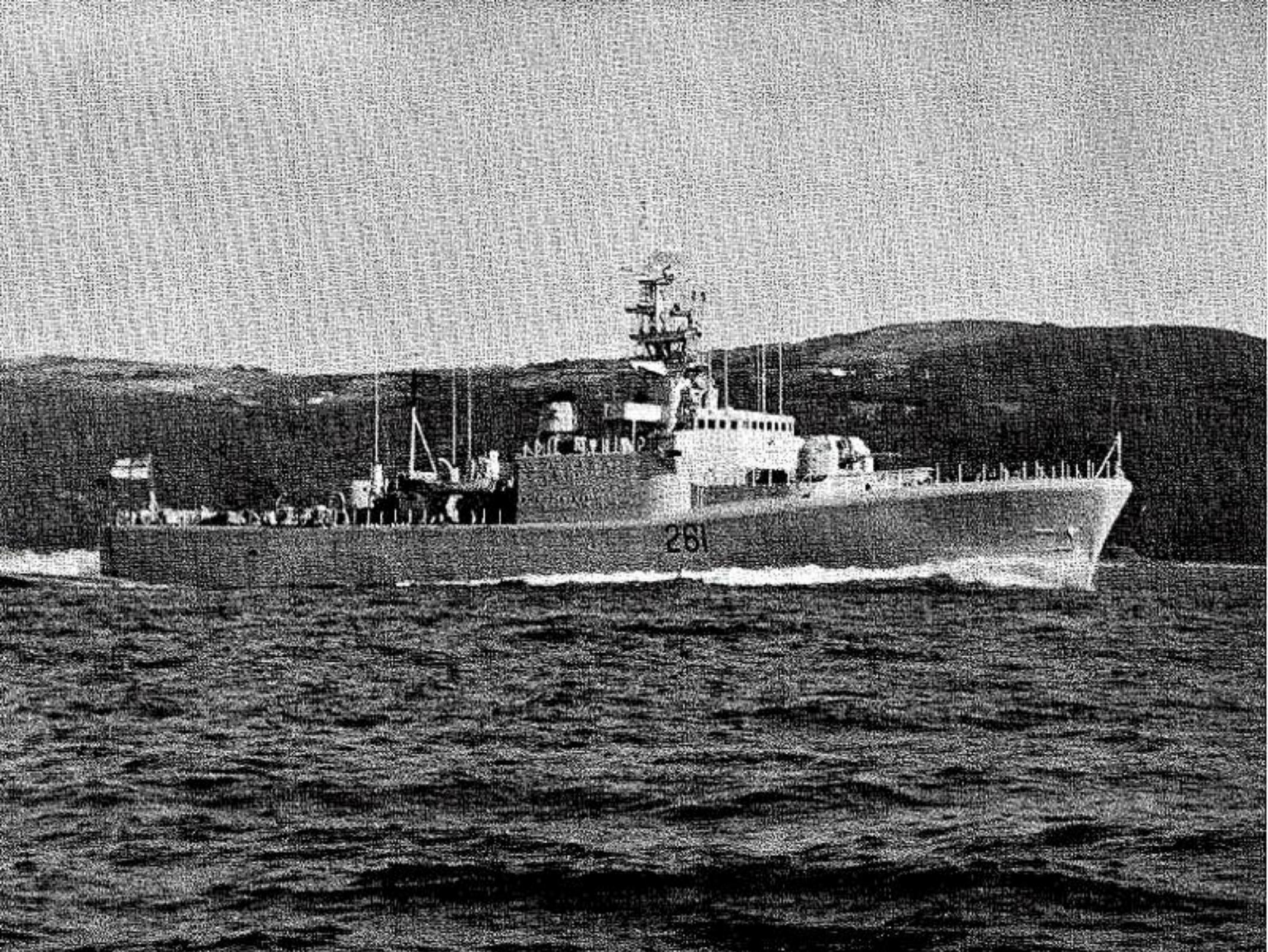
The commissioning of this fine new ship, the first of her class and the first in the RCN of her name, is vitally important to the Navy, bringing as she does fresh strength and greater capability to the naval forces that serve Canada at sea.

To those who designed and to those who built HMCS *Mackenzie*, I extend congratulations on a job well done.

I am sure that they as well as all RCN personnel will join me in wishing the Captain, officers and men of HMCS *Mackenzie* God-speed and a successful commission.

A handwritten signature in black ink, appearing to read "H. S. Rayner".

H. S. RAYNER,
Vice-Admiral, RCN,
CHIEF OF THE NAVAL STAFF.



THE TASK—THE SHIP

WITHIN the framework of national defence policy, the Royal Canadian Navy is charged with the responsibility for ensuring that Canada, in concert with allied and friendly nations, has unrestricted use of the seas in peace and war.

The prime threat at sea today is the submarine. It is for this reason that the Royal Canadian Navy has specialized in anti-submarine operations and has developed, in partnership with Canadian industry, a series of ships especially designed for anti-submarine warfare. Latest of these ships is HMCS *Mackenzie*.

The *Mackenzie* carries the best available anti-submarine equipment and weapons and embodies numerous products of science and technology which contribute to her fighting efficiency. Yet for all this ship's sophisticated systems and technical innovations, it is upon the officers and men who sail her that her effectiveness ultimately depends.

Far from diminishing the role of the sailor, modern equipment, weapons and tactics impose heavier demands upon the human element than was ever the case in the past.

Today's sailor must be a skilled technician. He must be resourceful and intelligent. He has to be educated and alert, with a capacity to assimilate and translate into action the knowledge required of him in the discharge of his duties. Every man on board a warship must know his job intimately and thoroughly and be prepared to act instantaneously and correctly.

A CANADIAN ACHIEVEMENT

HMCS *Mackenzie* is the name ship of her class and first to be commissioned. Five other "Mackenzies" are now building in Canadian shipyards.

The *Mackenzie* and her sister-ships will be among the most modern anti-submarine vessels in the world. They are equipped with the best available armament, underwater detection equipment, and air and surface radar.

The *Mackenzie*'s keel was laid down at Canadian Vickers Limited, Montreal, on Dec. 15, 1958. Mrs. Somers, wife of the late Captain John S. Somers, then Principal Naval Overseer, Montreal Area, officiated at the keel laying.



On May 25, 1961, the *Mackenzie* was launched. She was sponsored by Mrs. Freeborn, wife of Commodore Frank Freeborn, then Naval Constructor-in-Chief.

The ship will commission with 12 officers and 235 men. She has an overall length of 366 feet, a beam of 42 feet and a mean draught of 13.5 feet. Her displacement is 2,900 tons. Her twin screws are powered by geared steam turbines. She has a designed speed of 28 knots. A high degree of manoeuvrability is provided by twin rudders.

The *Mackenzie* is insulated and air-conditioned for both the fighting efficiency and comfort of her personnel. Her rounded lines will counter ice formation and facilitate the washing down of radioactive contamination. Her anchors are housed in recessed chambers, equipped with manually operated doors, to reduce ice-forming spray. The capstan, usually located on the foc'sle, is below decks.

As in the earlier *St. Laurent* and *Restigouche* class destroyer escorts, the commanding officer of the *Mackenzie* will "fight" the ship from the operations room. Here, although he is not in visual contact with the sea or the tactical situation, complex sonar, radar, direction-finding and other equipment enable the captain to take his ship into combat. The wheelhouse is on the main deck, two decks below the bridge for reduced vulnerability during action.

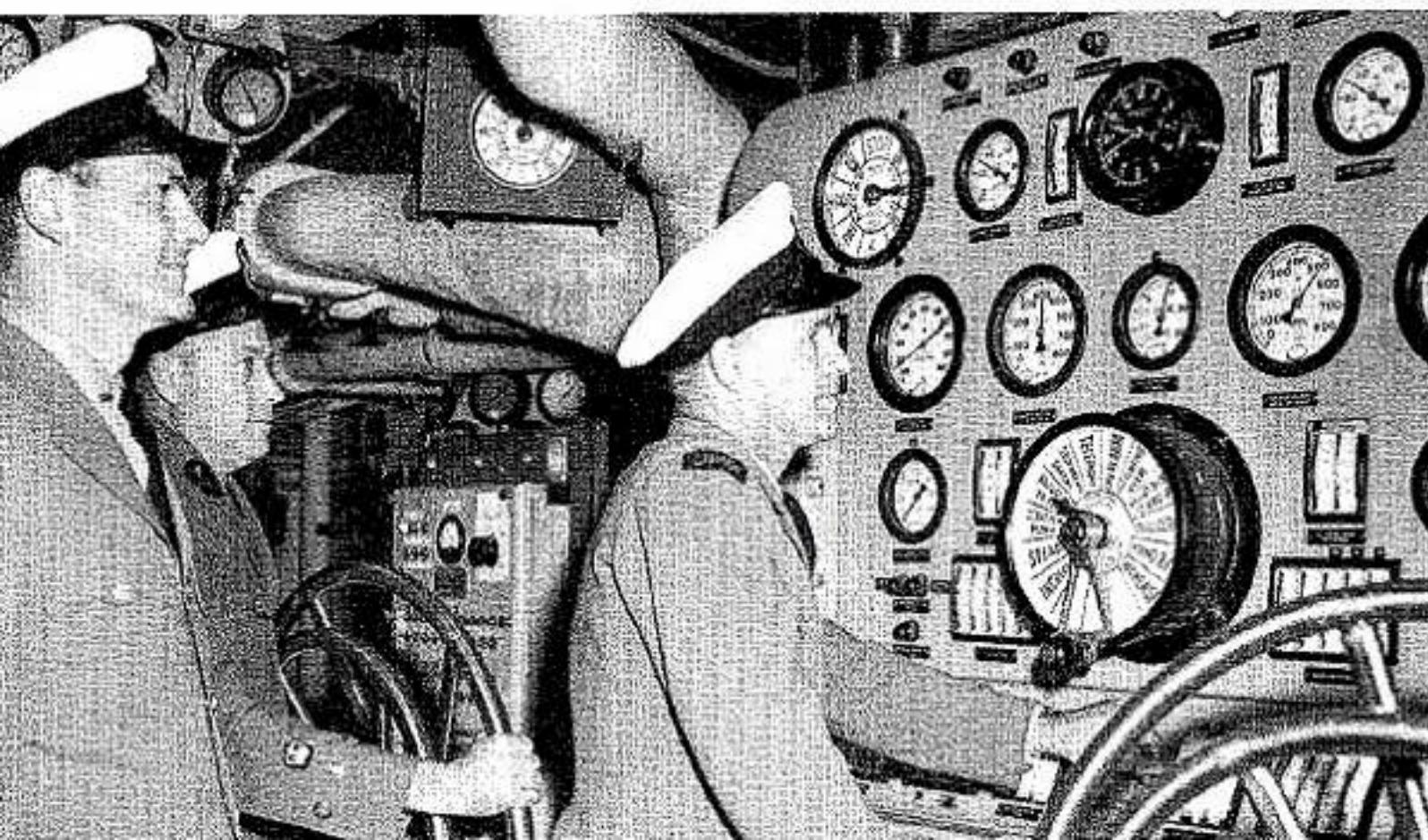
CONSTRUCTION

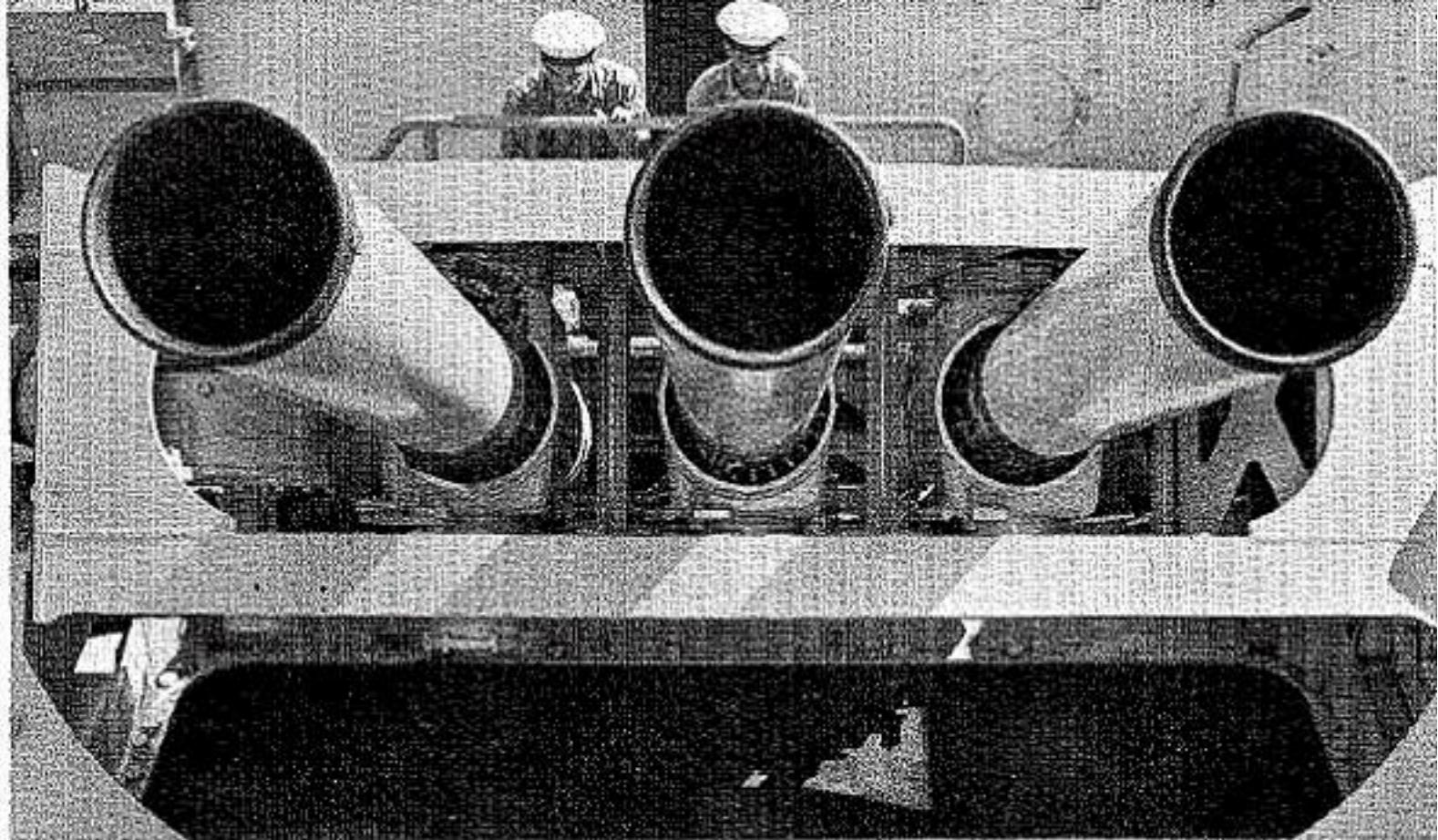
The unit construction technique, developed in Canadian shipyards, has been employed in building this ship. Instead of building from the keel up, in the conventional manner, separate units are prefabricated, then carried to the building ways to be positioned for final welding.

This unit method makes possible the construction of the vessel by sections under cover, where the work is protected from the weather. The system also allows movement of each section within the fabrication shed in such a way as to ensure the most efficient attitude for erection and welding.

This method also makes it possible for several structural steel manufacturers to be working simultaneously on different components of the ship. Drawings are such that reference to the shipbuilder would, in these circumstances, be unnecessary. The sections could be shipped to the shipyard which would, in effect, become an assembly plant. A high production rate could thus be achieved if required.

The *Mackenzie* is nearly all welded, and the welds are X-ray tested to disclose hidden defects. A large quantity of aluminum has been used in the ship's interior and superstructure, improving stability through weight reduction.





WEAPONS

Anti-submarine weapons are the principal armament. They include two "omnidirectional" three-barrel mortar mountings capable of firing high explosive projectiles with great accuracy.

The mortar is controlled by means of electronic apparatus which locates and tracks the submarine and fires the mortar at the correct moment. The ship is also equipped with homing torpedoes which can track and strike an enemy target regardless of its evasive action.

Other weapons include one twin 3-inch 70 calibre radar-controlled gun forward and one twin 3-inch 50 calibre aft, each with an extremely high rate of fire. Primarily anti-aircraft weapons, they can also be used effectively in surface action.

PROPELLION MACHINERY

The ship is powered by two main steam turbines geared to twin shafts. Hardened and ground gearing has been used, reducing substantially both the gearing weight and housing dimensions. The main engines are rated at 30,000 shaft horsepower.

Auxiliary machinery is turbine, diesel or electric-powered.

The two water-tube boilers are of extremely compact design, with steam maintained at a constant high pressure and temperature. Remote and automatic controls are used to an extent rarely found in a warship.

ELECTRICAL EQUIPMENT

The *Mackenzie* has electronic and electrical systems more extensive and complex than those carried in Second World War ships twice her size.

Her generators can produce enough power to supply light, heat and power to a city of 18,000 population.

Most functions of the ship, including armament, navigation, cooking, ventilation, air-conditioning and communications depend on electrical power. About 300 motors and motor generators provide the motive force for a wide variety of equipment. The ship's main electric power is alternating current.



ELECTRONICS

The *Mackenzie* has facilities for transmitting and receiving on low, medium, high, very high and ultra-high frequencies. She is also equipped with direction-finding equipment and radio teletype.

The ship has radar systems for gunnery fire control, navigation, surface warning, air warning and air early warning. The several sonar sets are of advanced design and embody certain important Canadian developments.

For internal communications she has 12 separate telephone systems, including lines for docking ship, damage control, radar maintenance and fuelling at sea, and 12 sound broadcast systems. The equipment enables the commanding officer to be in direct contact with every part of the ship. The system is similar to a public automatic telephone service.

A Canadian-designed remote control system makes it possible to broadcast or receive from any of 28 positions in the ship.

DAMAGE CONTROL AND DECONTAMINATION

The *Mackenzie* has an extensive damage control system with its centre linked by a special telephone switchboard to strategic points in the ship.

To reduce danger of flooding and to prevent contamination of the air-conditioning system by gas, bacteria or atomic fall-out, the hull has been built without scuttles. Those on the superstructure are sealed and have light-weight aluminum deadlights for blackout purposes. A bilge suction main runs throughout the ship with suction taken in hold and lower deck compartments. The bilge suction is operated by eductors which are driven by four main pumps. These pumps also provide pressure for a fire main which supplies fire hydrants throughout the ship. Portable pumps are also provided at strategic points in the ship. Paint is fire resistant.

The ship can be sealed against atomic, biological or chemical attack, with provision for recirculation of air within the ship through the air conditioning plants. Personnel who have been exposed can be decontaminated in either of two compartments, one located forward and one aft.

The ship is equipped for hosing down contaminated surfaces on the weather and upper decks.

All compartments where men might be trapped have emergency escape scuttles with jumping ladders, supplemented by kick-out panels, as an alternate means of escape.

All damage control features of this ship are based on the particular hull form characteristic which provides her with positive stability under all conditions of damage which she can survive. This means that the ship will not under any conditions founder by capsizing and will retain positive stability throughout damage.

LIFE SAVING AND MEDICAL EQUIPMENT

Carley floats and wooden rafts formerly used in most other ships have been replaced with inflatable rubber rafts. These 20-man rafts inflate automatically on release into the sea. In addition to emergency rations, each raft carries survival gear, collapsible bailers, sea anchor, floating sheath knife and plastic whistle. The rafts have a canopy to shelter the men from wind, sun and weather.

The sick bay is comparable in size to that of a cruiser. There are four berths, a bathroom, an operating table with the latest type operating light, well-stocked drug and medical lockers and diagnostic facilities.

HABITABILITY

The *Mackenzie's* men sleep in bunks with foam rubber mattresses, pillows and individual reading lamps. Aluminum clothes lockers and additional drawer space for personal belongings are provided, as are mirrors and electric shaving outlets. Each living space has a recreational area for off-duty hours. In addition, a separate area has been allocated for games, movies and other recreational activities of the men.

The officers' cabins, which also serve as offices, are arranged for single and double occupancy, except for one accommodating four junior officers. The commanding officer's quarters consist of an office and living quarters.

There is provision for cafeteria-style messing from a centrally located electrically-equipped galley. The galley contains a bakery; sections for handling pastry, meat and vegetables; a dairy with ice cream and milk machinery; a dish-washing machine and garbage disposal unit.

The main dining area can also be used for recreational purposes in the evenings. Lighting is fluorescent. The chief and petty officers have a separate dining space nearby.

The ship has storage for 90 days' frozen provisions, compared with that for 14 days in Second World War escort ships.





**The late Captain
J. S. Somers, CD, RCN.**



**Captain A. G. Bridgman, CD, RCN.,
Principal Naval Overseer, Montreal.**

Throughout the construction of HMCS *Mackenzie*, all work has been under the supervision of the Principal Naval Overseer, Montreal Area, and his staff of naval and civilian personnel, and civilian Government inspectors.

During the greater portion of the time the *Mackenzie* was building, the Principal Naval Overseer, Montreal Area, was Captain John S. Somers. Following the untimely death of Captain Somers on December 15, 1961, the duties were assumed by Captain A. Graham Bridgman. It was during the tenure of Captain Somers that the *Mackenzie's* keel was laid, with Mrs. Somers officiating.

In addition to the overseeing work connected with the *Mackenzie*, the Principal Naval Overseer, Montreal Area, directs the technical efforts of the Naval Central Drawing Office in developing plans for the destroyer escort programme and for other naval programmes. He also, through resident overseers, directs the technical efforts of other naval technical activities in the area.

Other members of the overseeing staff in Montreal are: Cdr. K. W. Salmon, Assistant Principal Naval Overseer; Lt.-Cdr. N. R. Banfield, Lt.-Cdr. J. F. Millen, Lt.-Cdr. E. S. Mitchell, Lt.-Cdr. D. D. Miller, RCN (NETE); Lt.-Cdr. R. J. Edwards, Lt.-Cdr. R. W. A. Roberts (Dominion Engineering Works Ltd.); Lt. R. W. Bright, Lt. C. J. Keddy (Peacock Brothers Ltd.); Lt. G. E. Copp, Lt. W. T. Coggie, Commissioned Officer H. P. Hinkel, Mr. W. G. Attwell (Dominion Engineering Works Ltd.); Mr. C. E. Booth; Mr. M. Cote; Mr. C. Lemonde; Mr. J. H. Beaumont (Peacock Brothers Ltd.).

THE NAVAL OVERSEERS

THE BUILDERS

In the early years of this century, when taking steps to give Canada a Navy of its own, the Government recognized also the need for a major shipbuilding yard, not only to service and maintain its own ships, but also those of the Commonwealth nations. This was the origin of Canadian Vickers—the yard on which the Royal Canadian Navy has relied for most of its "lead ships".

HMCS *Mackenzie*, latest of the naval vessels to be built in this yard, is the first of her class. This class of destroyer escort follows the *Restigouche* and *St. Laurent* classes. Both HMCS *St. Laurent* and HMCS *Restigouche* were built at Vickers.

As the Canadian Navy has kept to the fore in the practice of anti-submarine warfare, so also has its "lead yard" broadened and expanded its knowledge of the latest in manufacturing and construction methods and techniques.

From the building of submarines, submarine chasers and other units during the First World War . . . to an assembly-line production of frigates, landing craft and ferries in World War II . . . and on to the most modern destroyer escort vessels of today, Canadian Vickers has kept faith with the Navy and continued to serve it in all its needs.

Mr. R. C. Pearse,
President, Canadian Vickers Limited



Aerial view of Canadian Vickers Limited, Montreal.



PROGR

1000—Invited Guests Seated
1005—Guest of Honour a
1030—Commissioning Cer
Guest of Honour ar
Ship, followed by I
1130—Reception and guide

THE COMMISSION ORDER OF

Introduction by Captain A. G. Bridgman, CD, RCN, Principal Naval Overseer, Montreal.

Address by Mr. R. C. Pearse, President, Canadian Vickers Limited.

Address by Vice-Admiral H. S. Rayner, DSC and Bar, CD, RCN, Chief of the Naval Staff.

Address by Guest of Honour, The Hon. Douglas S. Harkness, PC, GM, ED, MP, Minister of National Defence.

Acceptance of the ship by Rear-Admiral J. B. Caldwell, MBE, CD, RCN, Chief of Naval Technical Services.

Commissioning Service conducted by the Rev. A. G. Faraday, Chaplain (P), RCN.

HYMN: Tune "Eternal Father Strong to Save"

O Father, King of Earth and Sea,
We dedicate this ship to Thee;
In faith we send her on her way,
In faith to Thee we humbly pray,—
O hear from heaven our sailors' cry,
And watch and guard her from on high.

And when at length her course is run,
Her work for home and country done;
Of all the souls that in her sailed,
Let not one life in Thee have failed,
But hear from heaven our sailors' cry,
And grant eternal life on high.

AMEN.

PSALM 107 (Verses 23 to 31, 43) to be said responsively.

23. They that go down to the sea in ships, that do business in great waters;
24. These see the works of the Lord, and His wonders in the deep.
25. For He commandeth, and raiseth the stormy wind, which lifteth up the waves.
26. They mount up to the Heavens, they go down again to the depths; their soul is melted because of trouble.
27. They reel to and fro, and stagger like a drunken man and, are at their wit's end.
28. Then they cry unto the Lord in their trouble, and He bringeth them out of their distresses.
29. He maketh the storm a calm, so that the waves thereof are still.
30. Then are they glad because they be quiet; so He bringeth them unto their desired haven.
31. Oh that men would praise the Lord for His goodness, and his wonderful works for the children of men.
43. Whoso is wise, and will observe these things, even they shall understand the loving-kindness of the Lord.

P R A Y E R

O Thou, that sittest above the water floods, and stillest the raging of the sea, accept, we beseech Thee, the supplications of Thy servants for all who in this ship, now and hereafter, shall commit their lives unto the perils of the deep. In all their ways enable them truly and godly to serve Thee, and by their Christian lives to set forth Thy glory throughout the earth. Watch over them in their going forth and their coming in, that no evil befall them, nor mischief come nigh to hurt their souls. And so through the waves of this troublesome world, and through all the changes and chances of this mortal life, bring them by Thy mercy to the sure haven of Thine everlasting kingdom; through Jesus Christ Our Lord, Amen.

The Naval Prayer

The Lord's Prayer

Benediction

Her Majesty's Canadian Ship *Mackenzie* commiss
Commanding Officer, Commander A. B. German
Ship's company embarks in the ship.
Commanding Officer is piped on board and stand
Party and Invited Guests.

AMMEE

ted.
and Official Party arrive.
remony.
nd Official Party tour the
Invited Guests.
led tours.

NING CEREMONY SERVICE

Commissioning Service conducted by the Rev. J. E. Whelly, RCN, Chaplain-of-the-Fleet (RC)

BENEDICTIO NAVIS

V. Adjutorium nostrum in nomine Domini.
R. Qui fecit caelum et terram.
V. Dominus vobiscum.
R. Et cum spiritu tuo.

Oremus.

Propitiare, Domine, supplicationibus nostris, et bene + dic navem istam dextera tua sancta et omnes qui in ea vehentur, sicut dignatus es benedicere arcum Noe ambularem in diluvio: porrige eis, Domine; dexteram tuam, sicut porrexisti beato Petro ambulanti supra mare; et mitte sanctum Angelum tuum de caelis, qui liberet, et custodiat eam semper a periculis universis, cum omnibus quae in ea erunt: et famulos tuos, repulsiis adversitatibus, portu semper optabili, cursuque tranquillo tuearis, transactisque, ac recte perfectis negotiis omnibus, iterato tempore ad propria cum omni gaudio revocare digneris: Qui vivis et regnas in saecula saeculorum. R. Amen.

BLESSING OF A SHIP

V. Our help is in the name of the Lord.
R. Who made heaven and earth.
V. The Lord be with you.
R. And with thy spirit.

Let us pray.

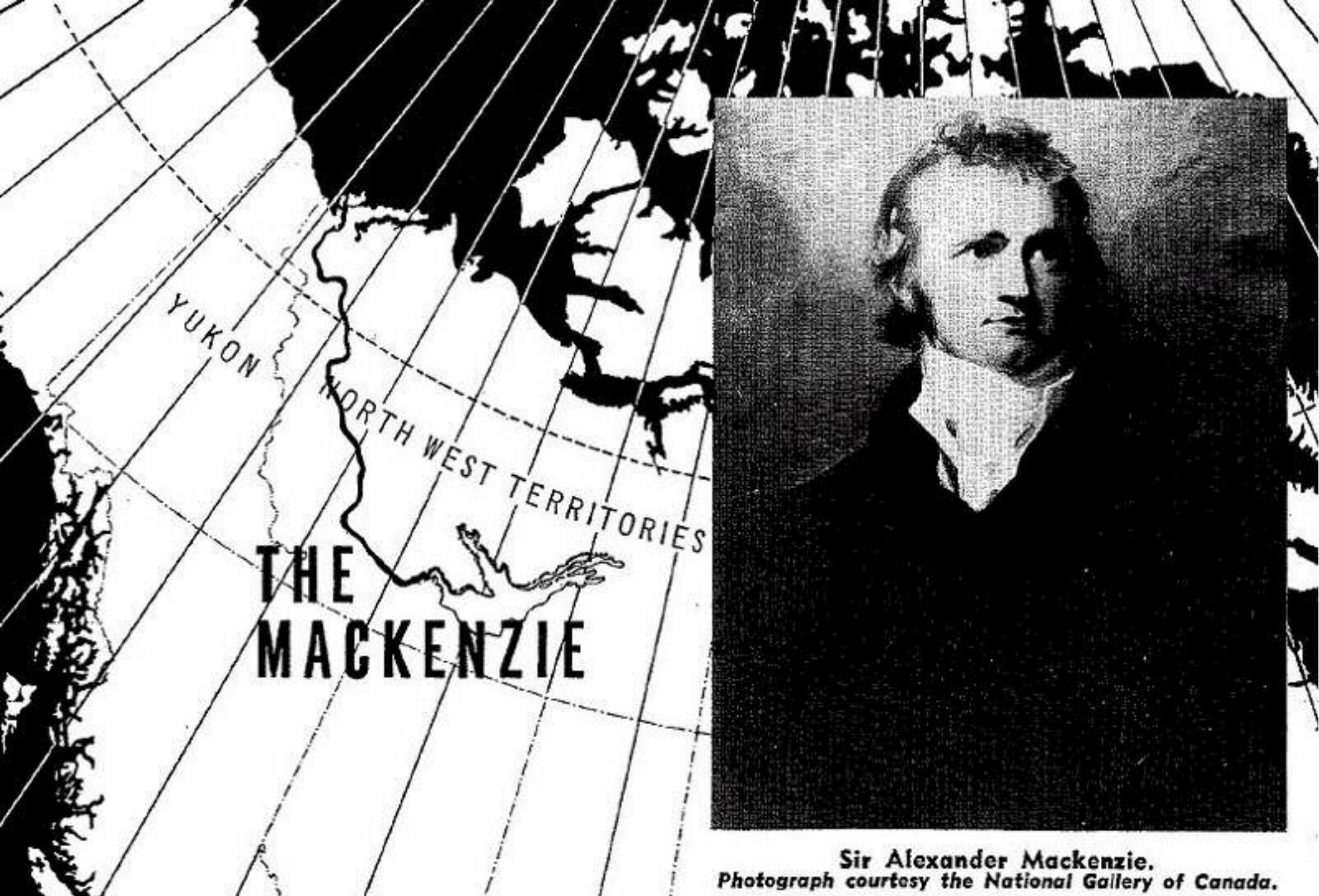
Be attentive, O Lord, to our supplications, and bless + this ship and all who sail hereon, as thou wast wont to bless Noah's Ark in the Deluge. Stretch forth thy hand to them, O Lord, as thou didst reach out to Peter when he walked upon the sea. Send thy holy angel from heaven to watch over it and those on board, and keep it safe at all times from every disaster. And when threatened perils have been removed, comfort thy servants with a calm voyage and the desired harbour. And having successfully transacted their business, recall them again when the time comes to the happiness of country and home. Thou Who livest and reignest forevermore. R. Amen.

PRAYER FOR SAILORS (to St. Brendan)

St. Brendan, named "Patron of Seafarers," help those who fight our battles on the waters. You were fittingly called "God's Voyager," because you spread His Gospel by long and dangerous voyages and gave that Gospel of salvation to many. As our fathers were brought through the Red Sea and carried in safety through the overflowing waters, so grant that through your intercession our sailors, marines and those who guard our nation's coasts may be preserved from all dangers of the sea, may be protected on their course and come safely into port. Amen.

ions.
n, CD, RCN, speaks to the ship's company.

ds by to receive the Guest of Honour, Official



THE MACKENZIE

Sir Alexander Mackenzie.
Photograph courtesy the National Gallery of Canada.

For Canadians familiar with their history the name Mackenzie brings to mind men of conviction, courage and achievement. From the realm of politics there is the tempestuous William Lyon Mackenzie, and from the early days of exploration in a new land, the redoubtable Alexander Mackenzie.

In 1789, Alexander Mackenzie, who came to Canada as a result of the American Revolution, ventured on a dangerous journey into an unknown land. The purpose was two-fold—to open new fur-trading areas for the North West Company, in which he was a partner, and settle doubts concerning an inland water passage from the Pacific Ocean to the Arctic. His travels took him through a land whose riches are only now being fully realized and developed, and down one of the world's mightiest rivers.

Alexander Mackenzie is written into Canadian history and geography books for all time, for the land he explored and the river whose course he followed bear his name. The District of Mackenzie is part of the far-ranging Northwest Territories, and the Mackenzie River is the water highway to Canada's north.

Mackenzie's trip proved, once and for all, that there was no navigable passage from the Pacific to the Arctic through the body of the continent. Travelling in a small fleet of canoes, he and his men left Fort Chipewyan, on the shore of Lake Athabasca, on June 3rd, 1789. By the Slave River, Great Slave Lake, and the, then, unnamed Mackenzie, the party reached the Mackenzie Delta, and the Arctic Ocean, by mid-July.

Four years later Mackenzie travelled overland to the tidewaters of the Pacific at Bella Coola. It was the first crossing to the west coast of North America north of Mexico, preceding by ten years the American team of Lewis and Clark. For his work in exploring these vast regions of Canada, Mackenzie was knighted in 1802.

The Mackenzie River is one of the world's largest. From Great Slave Lake it stretches north and west 1,200 miles to the Arctic Ocean. It rises in the Rocky Mountains as the Athabasca River, and, with Lake Athabasca, the Slave River and Great Slave Lake forms a waterway some 2,350 miles long. From Waterways, Alberta, this river route is navigable to Fort Fitzgerald, where a 16-mile portage is needed to bypass a series of rapids that drop 120 feet. The portage ends at Fort Smith and from there the waterway is continuously navigable to the sea.

With rivers such as the Athabasca, Peace, Liard and Great Bear as contributors, the draining basin of the Mackenzie River is some 700,000 square miles. It is in this area that the major development of the Northwest Territories is taking place.

This is the region where mineral discoveries have made mining the leading industry in this part of the north, and where settlement is heaviest. Recent years have seen development going more rapidly than at any period in the past. The Mackenzie Highway System now extends from Alberta to Yellowknife, gold mining centre of the Territories, and is pushing farther north. The first sod was turned in February, 1962, for construction of the Great Slave Lake Railway from Grimshaw, Alberta, to Hay River, opening up to development the great lead-zinc deposits at Pine Point. Regular air service, and non-scheduled flights link the north with southern Canada.

About half the 520,000-square mile Mackenzie District lies within the Canadian Shield, an area where almost all minerals known to man are said to be stored. The other half lies in the Interior Plain, scarred by glaciers and pitted by innumerable lakes.

Most residents of the Mackenzie Valley live at, or around, Yellowknife, Hay River, Fort Smith, Fort Simpson and Norman Wells. The Indian population lives, for the most part, south of the tree line while Eskimos have chosen to settle north of the trees along the Arctic coast. The new town of Inuvik is one northern community where the population is almost equally divided among Indian, Eskimo, and white residents.

Inuvik lies north of the Arctic Circle but some 40 miles south of the tree line. It provides the main centre of communications, education and health in the Western Arctic.

Combining Arctic and sub-Arctic, the Mackenzie District has temperatures that range in the extreme from 60 below to 90 above. Despite the short three-month summer, gardens are cultivated, and greater development only awaits the solution of problems of transportation, cost, and marketing. More than \$14 million of gold was produced in and around Yellowknife in 1961. A recent discovery announced in July, 1962, revealed what may be one of the world's largest iron ore bodies straddling the Yukon boundary at the height of the Rocky Mountains. Oil is produced at Norman Wells and large areas on the mainland, and north of it, are being explored for gas and oil. Fur is still a source of income for many people in the Mackenzie District; commercial fisheries on Great Slave Lake are a million dollar industry.

A growing number of tourists visit this part of the north, many driving up by the Mackenzie Highway. The north is still almost untapped angler's country. A limited number of buffalo hunting licences are issued each year.

But despite new schools, better medical services, and improved transportation, this is still the big land that Alexander Mackenzie knew—still a land that demands courage and enterprise of those who are born here and others who choose to make it their home.



THE SHIP'S BADGE

BLAZON: Gules, a bend wavy Argent upon which a like bendlet Azure, and over all a Lion rampant Or, armed and langued of the third, charged on the shoulder with a hurt upon which a representation of a Compass Rose of eight points Argent, the vertical and horizontal pointers extending beyond the perimeter of the hurt.

SIGNIFICANCE: This destroyer escort derives its name from the Mackenzie River, that in 1789 was discovered and explored by Sir Alexander Mackenzie, a native of Scotland and partner in the famous North West Company of Fur Traders. The gold lion rampant upon a red field is the reverse colouring of the main device in the Royal Arms of Scotland, this change being a necessary heraldic difference, and is used here in reference to Mackenzie and the land of his birth.

The Compass Rose on the lion's shoulder is a symbol of geography, travel and exploration and is used here as a reference to Sir Alexander's great feats in this field. It is also part of the Crest in the Armorial Bearings of the Northwest Territories through which the Mackenzie River flows.

SHIP'S COLOURS: Gold and Scarlet.





THE

**Commander A. B. German, CD, RCN.,
Commanding Officer.**

OFFICERS

Commander A. B. German	Commanding Officer
Lieut.-Commander G. W. Brooks	Executive Officer
Lieut.-Commander J. F. Millen	Engineering Officer
Lieut.-Commander J. L. Roy	Supply Officer
Lieut.-Commander D. N. Mainguy	Weapons Officer
Lieut. T. C. Arkell	Operations Officer
Lieut. R. G. Balfour	Navigating Officer
Lieut. N. J. Davy	A/Weapons Officer
Sub-Lieut. G. V. Patenaude	Communications Officer
Sub-Lieut. R. G. Hawkins	Deck Officer
Sub-Lieut. M. R. Bacon	A/Engineering Officer

MEN

Chief Petty Officer E. MacDonald	Coxswain
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WEAPONS DEPARTMENT

Chief Petty Officer	J. Slater	Petty Officer	C. Hutchings
Chief Petty Officer	C. Wheatley	Petty Officer	B. Teeple
Chief Petty Officer	R. Watson	Petty Officer	L. Grant
Chief Petty Officer	D. Ross	Petty Officer	S. Dzeoba
Petty Officer	A. McRae	Petty Officer	T. Merritt
Petty Officer	McLuskie	Petty Officer	F. Hicke
		Petty Officer	J. Pinard

SHIP'S COMPANY

Petty Officer	H. Ferguson
Petty Officer	S. Hunter
Leading Seaman	L. Smith
Leading Seaman	E. Butler
Leading Seaman	J. Sandberg
Leading Seaman	J. Shields
Leading Seaman	J. Wood
Leading Seaman	W. Greenfield
Leading Seaman	R. Edwards
Leading Seaman	G. MacGillivary
Leading Seaman	L. Curts
Leading Seaman	R. Baker
Leading Seaman	F. Little
Leading Seaman	D. Campbell
Leading Seaman	R. Parker
Leading Seaman	L. Deen
Able Seaman	M. Ciz
Able Seaman	J. Landree
Able Seaman	R. Randell
Able Seaman	J. Forshaw
Able Seaman	H. Zutz
Able Seaman	L. Baker
Able Seaman	J. Fisher
Able Seaman	G. Porter
Able Seaman	D. Wesner

Able Seaman	W. Losier
Able Seaman	T. Swift
Able Seaman	W. Mitchell
Able Seaman	G. Barker
Able Seaman	K. Peerless
Able Seaman	J. Robison
Able Seaman	M. Krowchuk
Able Seaman	R. Stenner
Able Seaman	L. Skallrud
Able Seaman	D. Fraser
Ordinary Seaman	G. Chisholm
Ordinary Seaman	J. Courage
Ordinary Seaman	P. Kirkhope
Ordinary Seaman	W. Hyde
Ordinary Seaman	J. Hall
Ordinary Seaman	L. Doe
Ordinary Seaman	I. Adams
Ordinary Seaman	C. Alexander
Ordinary Seaman	F. Kummer
Ordinary Seaman	C. Jordan
Ordinary Seaman	L. Raynor
Ordinary Seaman	D. Geruski
Ordinary Seaman	G. Matheson
Ordinary Seaman	K. Messer
Ordinary Seaman	C. Henley
Ordinary Seaman	L. Washburn

DECK DEPARTMENT

Petty Officer	R. Doyle	Leading Seaman	C. MacMillan
Petty Officer	S. Cook	Able Seaman	R. McFarlane
Petty Officer	W. Christiansen	Able Seaman	G. Rhodes
Petty Officer	M. Kostek	Ordinary Seaman	J. Tansowny
Leading Seaman	E. Farrish	Ordinary Seaman	G. Reddeman
Leading Seaman	A. Pike	Ordinary Seaman	P. Olding
Leading Seaman	J. Mackie	Ordinary Seaman	V. Henderson

OPERATIONS DEPARTMENT

Chief Petty Officer	A. Ireland	Able Seaman	J. Shaw
Chief Petty Officer	J. Davison	Able Seaman	D. Moore
Petty Officer	R. McMillan	Able Seaman	G. Young
Petty Officer	R. McNeil	Able Seaman	H. Cox
Petty Officer	R. Yeats	Able Seaman	G. Zuk
Petty Officer	A. Andrews	Able Seaman	L. Pomerleau
Petty Officer	H. Rands	Able Seaman	T. Hockley
Petty Officer	D. Jordan	Able Seaman	W. Hayden
Petty Officer	G. Robillard	Able Seaman	I. Cartwright
Petty Officer	R. Bailey	Able Seaman	D. Finnie
Petty Officer	W. Blades	Able Seaman	G. Sager
Petty Officer	W. Bean	Able Seaman	R. Brunning
Petty Officer	D. Martin	Able Seaman	C. Harrison
Petty Officer	J. Dickson	Able Seaman	C. Burgess
Leading Seaman	J. Johnston	Able Seaman	T. Charbonneau
Leading Seaman	R. Davidson	Able Seaman	G. Francis
Leading Seaman	J. Turcotte	Able Seaman	J. Robinson
Leading Seaman	J. Mason	Ordinary Seaman	N. Rougeau
Leading Seaman	M. Ellis	Ordinary Seaman	G. Geiger
Leading Seaman	L. Smiley	Ordinary Seaman	M. Klymchuk
Leading Seaman	J. Moore	Ordinary Seaman	E. Gusnowski
Leading Seaman	U. Olson	Ordinary Seaman	W. Hansen
Leading Seaman	D. Wright	Ordinary Seaman	G. Gill
Leading Seaman	R. Rosenfeld	Ordinary Seaman	W. Cardinal
Leading Seaman	K. Cummings	Ordinary Seaman	D. Rozon
Leading Seaman	R. Peters	Ordinary Seaman	G. Wright
Able Seaman	L. Kelly	Ordinary Seaman	W. Cole
		Ordinary Seaman	R. Hedrick
		Ordinary Seaman	A. Boucher

ENGINEERING DEPARTMENT

Chief Petty Officer	J. Nicholson	Chief Petty Officer	L. Houghton
Chief Petty Officer	S. Fullerton	Chief Petty Officer	C. Jenkins
Chief Petty Officer	D. Pike	Chief Petty Officer	F. Gough
Chief Petty Officer	G. Grotke	Petty Officer	D. Perry

Petty Officer	A. Patrick
Petty Officer	G. Noble
Petty Officer	R. Desjardins
Petty Officer	W. Gosse
Petty Officer	W. Pearson
Petty Officer	R. Miller
Petty Officer	F. Wapola
Petty Officer	S. Doyle
Petty Officer	R. Irwin
Petty Officer	A. Unischewski
Petty Officer	A. Carlson
Petty Officer	M. Kelly
Petty Officer	A. Holland
Petty Officer	R. Banwell
Petty Officer	M. Gibson

Leading Seaman	O. Cairns
Leading Seaman	E. Adamowski
Leading Seaman	R. Hesselgrave
Leading Seaman	A. Mack
Leading Seaman	M. MacLennan
Leading Seaman	G. Walters
Leading Seaman	H. Bemister
Leading Seaman	A. Moski
Able Seaman	J. Billingsley
Able Seaman	M. Park
Able Seaman	R. Switzer
Able Seaman	L. Dance
Able Seaman	P. Loster

Able Seaman	C. Muters
Able Seaman	J. Moller
Able Seaman	D. Gunderson
Able Seaman	J. Clark
Able Seaman	C. Wyman
Able Seaman	E. Faid
Able Seaman	R. Radford
Able Seaman	P. Lunness
Able Seaman	E. Scott
Able Seaman	A. Leslie
Able Seaman	S. Harvey
Able Seaman	R. Hilborn
Able Seaman	L. Anderson
Able Seaman	L. McGillivary

Ordinary Seaman	W. Sobistiansky
Ordinary Seaman	E. Hudson
Ordinary Seaman	R. Couldwell
Ordinary Seaman	J. Mooreside
Ordinary Seaman	A. Madson
Ordinary Seaman	C. Hawrylak
Ordinary Seaman	D. Bebbington
Ordinary Seaman	W. Morrison
Ordinary Seaman	K. Manhard
Ordinary Seaman	W. Clair
Ordinary Seaman	B. Hyatt
Ordinary Seaman	A. Lee
Ordinary Seaman	C. Morgan
Ordinary Seaman	A. Clayton
Ordinary Seaman	A. Lobbes

SUPPLY DEPARTMENT

Chief Petty Officer	R. Fenlon
Chief Petty Officer	N. Draginda
Petty Officer	C. Coombs
Petty Officer	R. Bradford
Petty Officer	C. Moench
Petty Officer	R. Sears
Petty Officer	M. Bernier
Petty Officer	J. Reynolds
Leading Seaman	L. Lenner
Leading Seaman	K. Dyer
Leading Seaman	E. Roadhouse
Leading Seaman	J. Bogard
Leading Seaman	J. Marks

Able Seaman	V. Mikkelson
Able Seaman	D. Parfitt
Able Seaman	A. Boudrot
Able Seaman	R. Condie
Able Seaman	R. Fries
Able Seaman	D. Babcock
Able Seaman	T. Labelle
Able Seaman	J. Grant
Able Seaman	G. Beaton
Able Seaman	R. Durance
Able Seaman	G. Frechette
Able Seaman	R. Curell
Ordinary Seaman	B. Darnell
Ordinary Seaman	E. Thiessen
Ordinary Seaman	F. Coutts

