# WELCOME
# ON BOARD

# HMCS BONAVENTURE
# CVL-22

# WELCOME ON BOARD

It is with much pleasure that we, the officers and men of HMCS BONAVENTURE, welcome you on board. This booklet is intended to provide a brief description of the ship, her equipment and the facilities provided her crew.

It is our hope that your visit on board will be an interesting and memorable one and that this booklet will be a small memento of the occasion.

The Commanding Officer,
HMCS BONAVENTURE

# HMCS BONAVENTURE
## LIGHT FLEET CARRIER

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| Displacement: | 20,000 tons |
| Length: | 700 feet |
| Beam: | 108 feet |
| Speed: | Approximately 24 knots |
| Aircraft: | CS2F Tracker anti-submarine aircraft |
| Anti-submarine helicopter: | CHSS 2 Sea King |
| Rescue helicopter: | HO4S3 |
| Main engines: | Twin shaft steam turbines |
| Complement: | 1,300 |
| Builders: | Harland and Wolff Ltd., Belfast |
| Commissioned: | January 17, 1957 |

Bonaventure was laid down in November, 1943 at Harland and Wolff Ltd., Belfast, for service in the Royal Navy and was launched in February, 1945. Completion of the hull and fitting out for the RN ceased on termination of the war.

The RCN purchased the hull and machinery in 1952 for completion to Canadian standards, by the same builders. Thus Bonaventure is the first carrier in the RCN to be Canadian owned.

The carrier embodies the most advanced features and developments which give her the capacity to handle the latest types of piston and helicopter aircraft with which the RCN's operational squadrons are armed. Chief among her up-to-date facilities for operating aircraft are the angled deck, steam catapult and stabilized mirror landing aids, all of which are British inventions.

The angled deck consists of the landing area angled eight degrees to the fore and aft line of the ship. This eliminates the need for a barrier, as the pilot is free to take off again should he miss the arrester wires or lose his hook.

The stabilized landing mirror is a large curved mirror on a gyro stabilized mounting. A number of coloured lights are mounted on arms on each side of the mirror. Shining into the mirror is another row of lights which, due to the curvature of the mirror, is reflected as a single light known as the "meatball". On approach the pilot keeps the light centered between the coloured lights, horizontally right down to the touch down. The result is a near perfect landing. This aid has reduced errors in judgement by the pilots quite considerably and as a result landing accidents are very rare.

The steam catapult replaces the old hydraulic ram and purchase system and employs a unique cylinder, the piston of which is powered by steam from the ship's boilers. It is capable of launching the latest and heaviest types of aircraft and is adjustable to give the launch speed required for each.

The RCN air squadrons which can be embarked in Bonaventure, depending on the role in which the ship is to be employed, are equipped with the following types of aircraft; VS-880 squadron operates the Canadian built CS2F-3 anti-submarine aircraft named the "Tracker". HS-50, the anti-submarine helicopter squadron is equipped with the Sikorsky CHSS-2 "Sea King", anti-submarine helicopter. These air squadrons when not embarked in the carrier, are based at CFB Shearwater, naval air station near Dartmouth, N.S.

The "Tracker", built by the De Havilland Aircraft Co. of Canada Ltd., is packed with electronic devices for navigation and for detection of submarines. Detection equipment includes radar, sonobuoys, magnetic airborne detector and a powerful searchlight. Armament includes homing torpedoes, depth charges

and rockets. With an all-up weight of 28,000 lbs, wing span of 69 feet eight inches and length of 42 feet, this twin engine aircraft is quite large to operate from a light-fleet carrier.

The anti-submarine helicopter is equipped with a sonar set which can be raised and lowered. The aircraft hovers a few feet above the surface of the sea and lowers the sonar set into the water to search and listen for submarines.

Gunnery armament in the Bonaventure includes four three-inch, 50 calibre anti-aircraft guns in two mountings and the latest fire control radar and computers.

The carrier has radar equipment for full coverage of fighting and navigation requirements including surface detection and air detection. In addition there is special radar fitted to enable aircraft to land in conditions of low visibility when they are unable to see the mirror lights until the last minutes.

Internal communications include intercom systems, sound powered telephones, PA systems and a 300-line telephone exchange system. For external communications, the ship is equipped with nine radio rooms and is capable of transmitting and receiving on many frequencies. She has the latest radio, teletype and facsimile equipment.

The main engines consist of twin-shaft steam turbines and the machinery has been so arranged that under certain circumstances it can be operated entirely by remote control.

The ship can generate enough electrical power to service the needs of a Canadian city of 20,000 people. The main generators produce direct current to a maximum of 3,200 kilowatts, developed by four turbine-driven generators and four diesel-driven generators. There is also about 400 kilowatts of alternating current power, required mainly by the ships electronics equipment.

Canadian living standards have been built into the ship. Officers are accommodated in single and double cabins, while other ranks sleep in bunks with foam-rubber mattresses and individual reading lamps. Meals are served cafeteria style and eaten in separate dining spaces. The ship's galleys are largely electrically operated, with a few steam heated pressure cookers. Other equipment includes automatic potato peelers, automatic dishwashers, meat tenderizers and garbage disposal units.

Bonaventure has a canteen complete with soda fountain and ice-cream machinery. Other recreational facilities include movies, a comprehensive library to suit all tastes and sports equipment for a variety of activities which can be carried out at sea. A chapel finished in hardwood and with beautiful appointments provides a quiet, appropriate setting for worship, away from the hustle and noises of the ship.

Medical facilities are well catered for both in sick bay and in the dental clinic. The sick bay includes an operating theatre, ward, dispensary and treatment rooms fitted with all the required modern equipment, including X-ray. The dental clinic is equally well equipped for its functions.

Bonaventure has recently completed a 16-month "half life" refit at Davies Shipbuilding Ltd. in Lauzon, Quebec.

In addition to the normal refurbishing of worn machinery the ship has been fitted with the latest in electronic gadgetry such as the Fresnel Lens, a new optical landing device, which gives a clearer presentation to the pilots of landing aircraft. There has been an increase and improvement in the living spaces on board by the conversion of obsolete compartments into mess decks and the creation of recreation areas in all the messes. To further enhance habitability air conditioning of the communal areas of the ship has been effected. The airtight "citadel" that portion of a ship that can be closed off under nuclear warfare conditions, has been expanded. Finally, much of the mechanical and electrical equipment has either been replaced or updated, which should result in decreased maintenance workload.

This extensive refit in approximately the mid-point in her useful life has enabled "Bonnie" to handle the recently modernized and heavier aircraft which she presently carries and to continue to be one of the most modern anti-submarine carriers of her size afloat and an effective weapon in the role she is assigned to play.

Bonaventure is named after Bonaventure Island (Ile Bonaventure), which lies in the Gulf of St. Lawrence at the eastern extremity of the Gaspe Peninsula. The island is a world-famous bird sanctuary to which sea birds of many different types return to nest. Gulls, gannets, cormorants, pigeons and the parrot-like puffins are only some of the variety of birds that nest on the island. At one time the island had a population of 200 or more, but now only a handful of families live there. It has but two small covers in which safe landings can be made by boat and in stormy weather even these are unapproachable.

This is the first ship of the RCN to bear the name Bonaventure. However, seven ships of the Royal Navy have been named Bonaventure, the first dating back to the fifteenth century. The last HMS Bonaventure, a submarine depot ship, was commissioned in 1943 and saw service in both the Atlantic and Pacific. She was sold in 1948 to the Clan Line Ltd., and renamed Clan Davidson.

The battle honors awarded ships bearing the name Bonaventure and which have been passed to the aircraft carrier are as follows:

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|---|---|---|---|
| LOWESTOFT | 1665 | FOUR DAYS' BATTLE | 1666 |
| ORFORDNESS | 1666 | SOLE BAY | 1672 |
| SCHOONEVELD | 1673 | TEXEL | 1673 |
| BARFLOUR | 1692 | MALTA CONVOYS | 1941 |


## CS2F-3 TRACKER ANTI-SUBMARINE AIRCRAFT

Originally built by DeHavilland (Toronto), the Tracker is an all-weather, twin-engine aircraft equipped with latest electronic devices for navigation and detection of submarines. This aircraft was recently modified to the CS2F-3 by Fairey Canada Ltd., (Dartmouth), and carries depth bombs, torpedoes and rockets.

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| Crew: | Four |
| Endurance: | 6.0 hours or 900 miles (normal)<br>8.0 hours or 1200 miles (long range extra tank) |
| Speed: | Search speed 140 knots, maximum 224 knots |
| All-Up Weight: | 25,500 lbs. |
| Dimensions: | 69′ wing span, 42′ length |
| Engines: | 2 Wright 983C9HE1 nine cylinder air cooled radial, single speed supercharge. |
| Equipment: | Radar, sonobuoys, magnetic anomaly detector (MAD), Julie, Jezebel, Jezebel relay, searchlight and electronic counter measures equipment. |


## CHSS-2 (SEA KING) ANTI-SUBMARINE HELICOPTER

An outstanding feature of the Sea King helicopter is its all-weather, day-and-night capability. Other characteristics include an automatic tail-folding device, winch-down equipment, hull-shaped fuselage, high speed and an automatic hovering capacity. It is equipped with detection, navigation and weapons systems which enable it to search for, locate and destroy any modern submarine.

| | |
|---|---|
| Crew: | 4 (two pilots, two sonarmen) |
| ASW Endurance: | 4 hours or 500 miles |
| Speed: | 120 knots (cruising) |
| Gross Weight: | 19,000 lbs. max |
| Dimensions: | Fuselage length 54'9", width 7'1", height over-all 16'8" |
| Engines: | 2 General Electric T-58-GE-8B twin turbines |
| Detection Equipment: | Sonar-ranging set and self-contained navigation system. |
| Armament: | Homing torpedoes and depth bombs |

With the anti-submarine warfare equipment removed, the CHSS-2 can transport up to 25 troops internally or up to 4,000 lbs. externally.


## SIKORSKY (HO4S-3) HELICOPTER

This versatile aircraft is used by the RCN primarily for helicopter advanced training. The helicopter is also used for search and rescue and fleet requirements including communications flights, torpedo spotting, photography and radar calibration. Hundreds of rescue and mercy missions have been flown by this type of helicopter since its introduction into the RCN in 1952.

| | |
|---|---|
| Crew: | 4 (2 pilots and 2 crewmen) |
| Endurance: | 3½ hours or 300 miles |
| Speed: | 85 knots (cruising) |
| Max. Gross Weight: | 7,750 lbs. |
| Dimensions (blades folded): | Length 42', height 13'4", width 11'6" |
| Engine: | Wright R-1300 9 cylinder |

Robert Hilborn Falls
Commanding Officer
CD, RCN

## COMMANDING OFFICER, HMCS BONAVENTURE

Captain Robert H. Falls was born in Welland, Ontario, on April 29, 1924, and joined the RCAF in 1943 and trained as a pilot.

After serving as a Flying Instructor he transferred to the RNVR early in 1945, serving in 803 squadron, and transferred with the squadron as a whole to the RCN in April of 1946, return- to Canada in the aircraft carrier HMCS Warrior.

From 1946 to 1954, with the exception of a tour of duty in the destroyer HMCS Haida, he served in air squadrons either ashore in the naval air station HMCS Shearwater or afloat in the aircraft carrier HMCS Magnificent.

After serving at Naval Headquarters during 1954-55, he took command of VF-870 squadron, flying F2H3 Banshee jet fighters.

Following a tour of duty as Lieutenant-Commander (flying) in the Aircraft Carrier HMCS Bonaventure, he returned to Naval Headquarters as Deputy Director Naval Air Requirements.

Captain Falls returned to Halifax, N.S. as Commander (Air) in the Bonaventure, and in 1963 was appointed in command of the destroyer escort HMCS Chaudiere.

In late 1964, he became director of the Canadian Forces Maritime Warfare School in Halifax.

Captain Falls took command of the aircraft carrier Bonaventure in November, 1966.

Commodore
Reginald John Pickford
CD, RCN

## SENIOR CANADIAN OFFICER AFLOAT (ATLANTIC)

Commodore Reginald John Pickford was born in Outremont, P.Q., on April 22, 1920, and entered the RCNVR as a sub-lieutenant in April, 1940.

During the Second World War he served with the Royal Navy and the RCN in various ships and establishments. In June, 1940, he was mentioned in despatches "for preventing war materials from falling into enemy hands". At that time he was in HMS Broke (destroyer) and operated with demolition parties from his ship in the port of Brest during the evacuation of France. Later the same year, he was a survivor from HMS Listrac when the ship was sunk in an action with enemy destroyers in the English Channel.

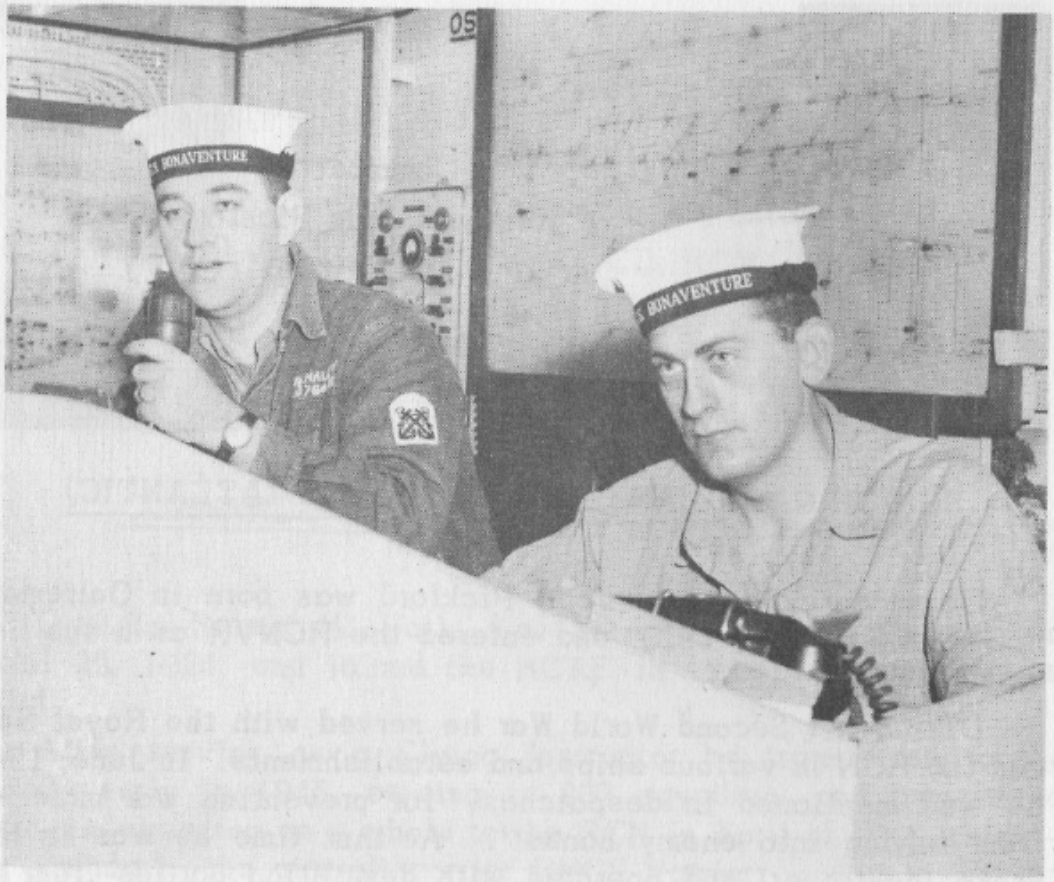
A specialist in navigation direction, Commodore Pickford has served as officer-in-charge of the navigation direction school at Halifax and as navigating officer HMCS Uganda (later HMCS Quebec) and HMCS Ontario, both cruisers. After completing a Royal Navy Staff course in 1953, he served as assistant chief of staff to the flag officer Pacific coast. He was executive officer of the Ontario before being appointed RCN member of the directing staff, RN Staff College, Greenwich, England, in August, 1956.

In March, 1959, he took command of HMCS Kootenay (destroyer escort) when she was commissioned in Vancouver. Commodore Pickford was appointed Director of Naval Plans at Naval Headquarters, Ottawa, in July, 1960. He was appointed commander Second Canadian Escort Squadron in June, 1964.

On promotion to his present rank, he was appointed Chief of Staff to the flag officer Atlantic coast in July, 1965.

At the formation of the integrated Maritime Command he served as Chief of Staff (logistics and administration) and later as Chief of Staff (operations).

Commodore Pickford was appointed Senior Canadian Officer Afloat in August, 1967.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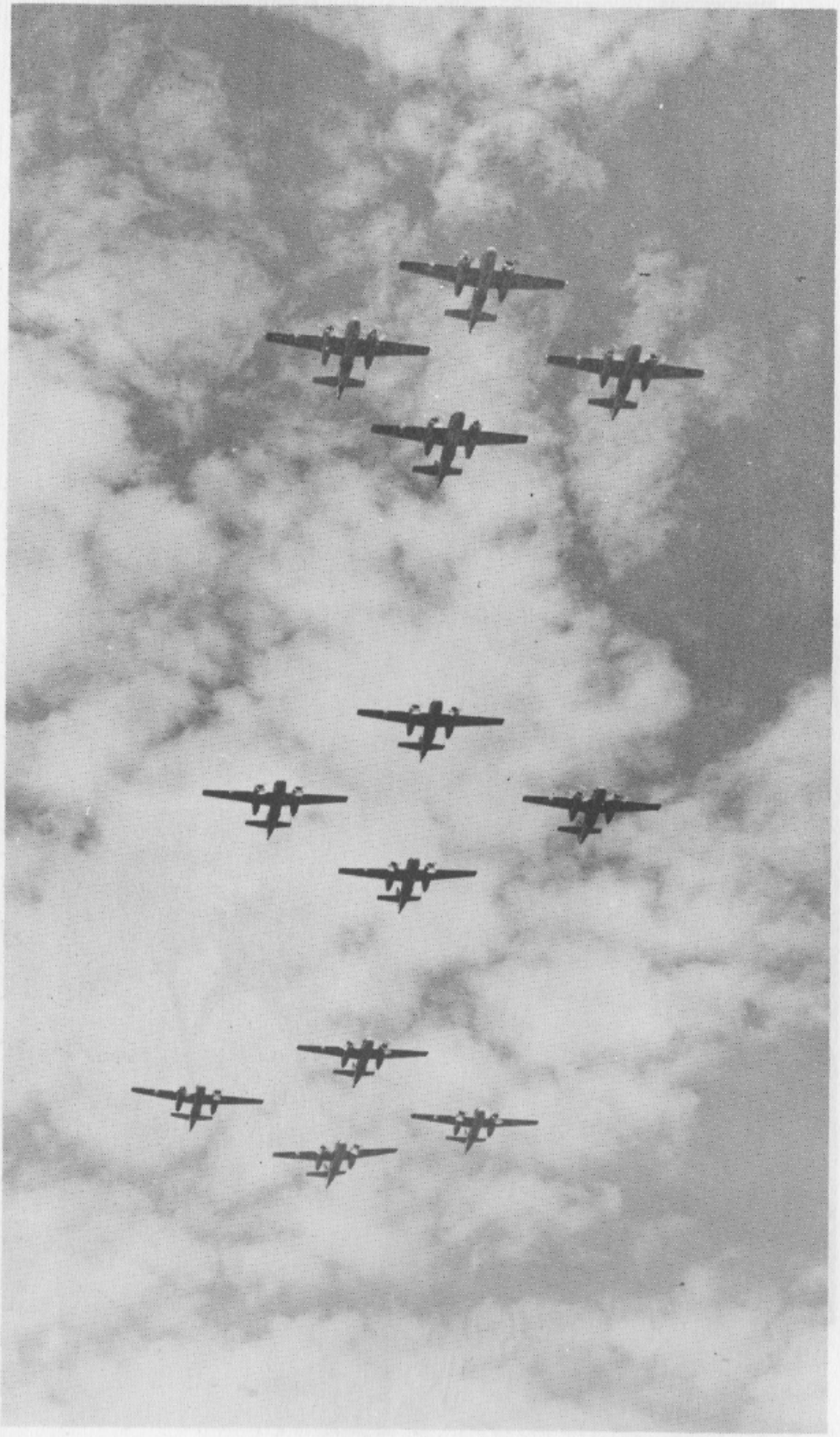

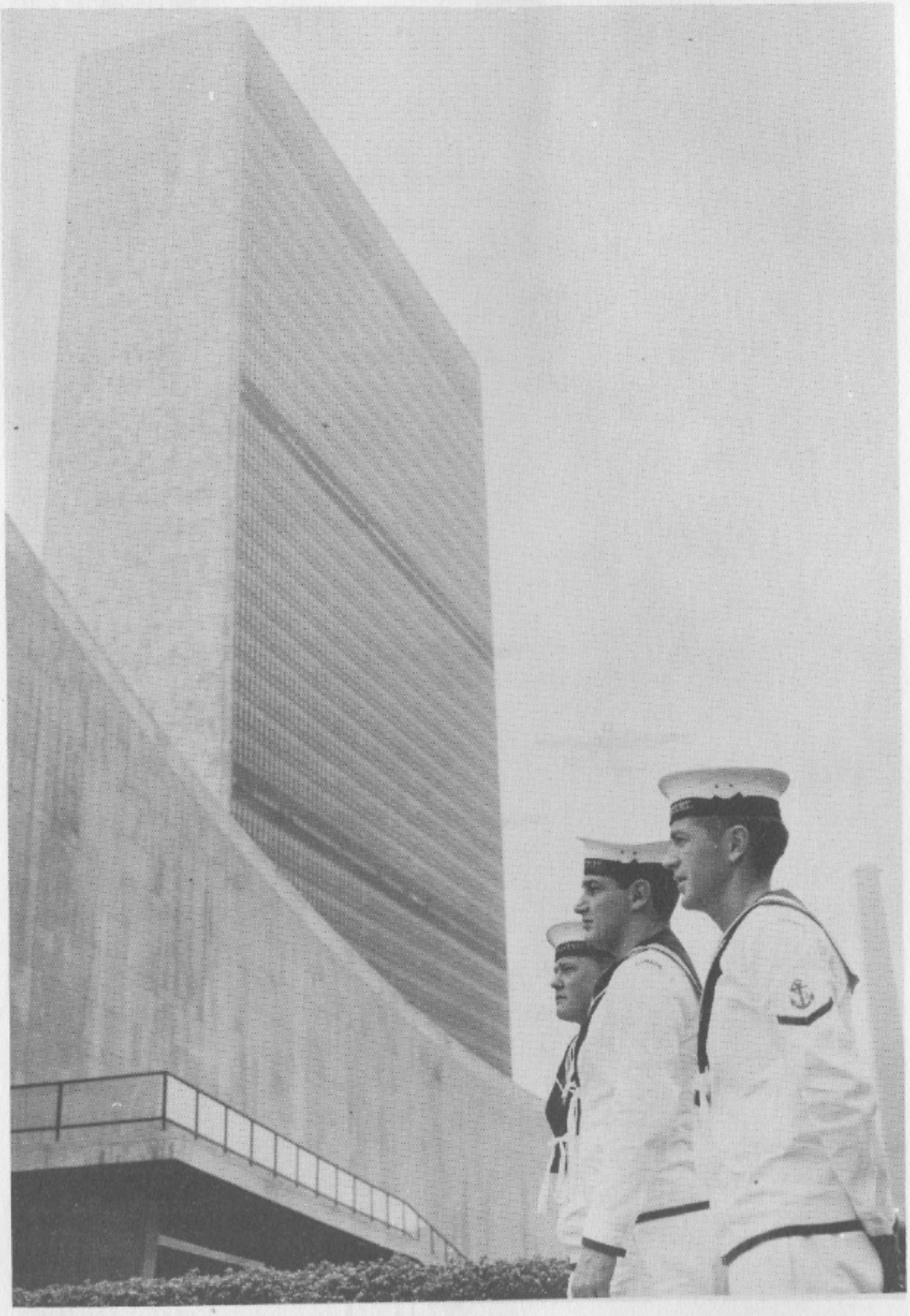

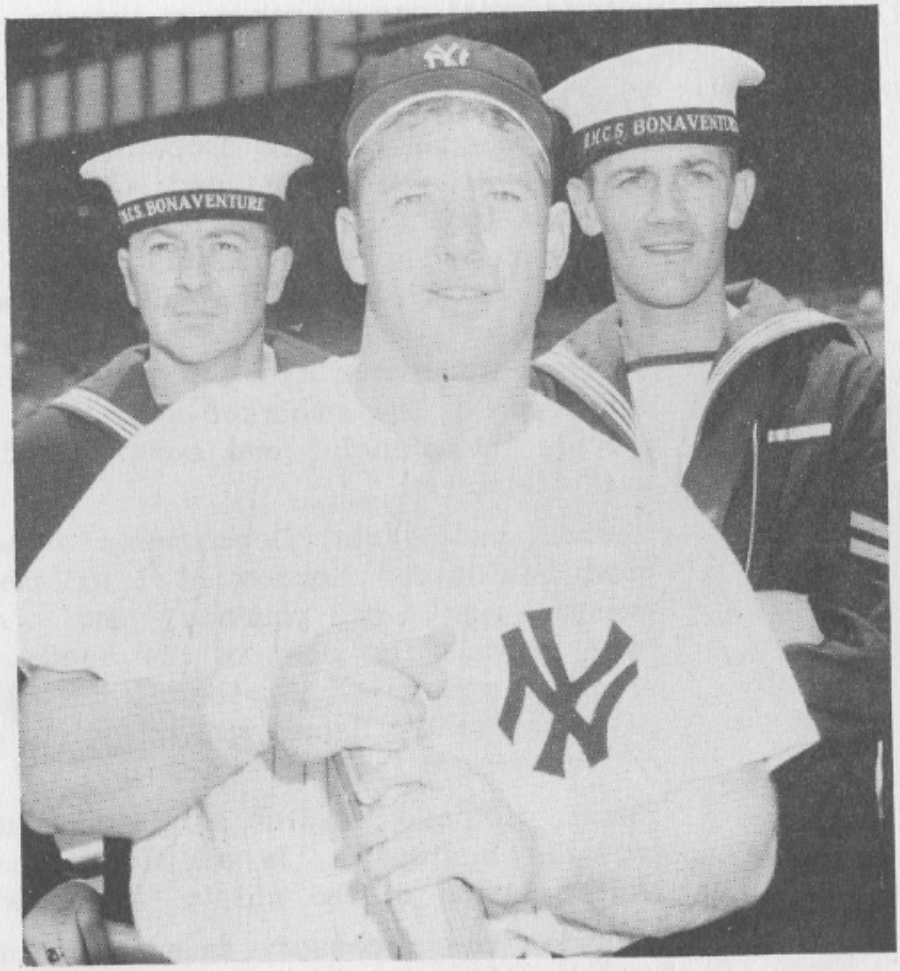
U.S.S. BONAVENTURE

# SEVEN DEPARTMENTS FORM OUR TEAM

**OPERATIONS:** One of the main reasons for BONAVENTURE's existence, as the Air Department is combined with Direction and Communication sections to form the Operations Department. This department is responsible for the smooth functioning of all aircraft and their operation and controls the flight and hangar decks and anything connected with aircraft and virtually any needs of the embarked squadrons. They provide the planning and control assistance to the Command.

**MEDICAL:** Medical and Dental Departments ensure the good health and comfort of 1,300 men. A modern sick bay, pharmacy and operating room provide for most of the needs of the ship's company. An up-to-date dental clinic gives the ship's dental staff complete control of the needs of the ship's company.

**SUPPLY:** Feeds, clothes, pays the ship's company and provides canteens. In addition, handles a major portion of the ship's "paper work".

**WEAPONS:** Provides the necessary defence against air attack and assist the Deck Department during refuellings, transfers at sea and in general maintenance of the ship.

**DECK:** Department personnel are the seamen of the ship and look after important items such as cleanliness of the ship, steering the ship, handling of lines and many other general "housekeeping" duties.

**ELECTRICAL:** The Electrical Department is responsible for all electronics and electrical maintenance carried out, with the exception of Weapons maintenance. This includes provision and supervision of specialized shop facilities for the air squadrons embarked as well as direct maintenance of all types of air-field equipment.

**ENGINEERING:** The Engineering Department is responsible for the operation, maintenance and repair of the ship's main propulsion system, hull and auxiliary systems which include firemain, fresh water heating, sanitation, fuel and refrigeration. The flight deck is another engineering responsibility and this includes arrangements for launching, recovering and refuelling aircraft.


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NAVY


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NAVY


**NON POR NOS TOZ SEUS**

The ship's motto comes from the Norman French and means:

**NOT FOR OURSELF ALONE**

BONAVENTURE's crest is almost identical with that used by a former Royal Navy ship of the same name, with a small but telling difference. It displays on heraldic water a golden horse-shoe open end uppermost, for luck, and in the curve of the shoe there sits a wyvern all in red. The wyvern is one of the heraldic menagerie of fanciful monsters; it looks like a batwinged dragon except it has no hind legs. This accentuates the length and vicious character of the tail.

The small but telling difference mentioned above is that this particular wyvern is shown wearing a special kind of coronet around its throat. In heraldic terms one might say "gorged of a coronet of Canada", for this coronet is comprised of a gold circlet around the rim of which are maple leaves of the same metal. This makes a novel and interesting change from the manner in which the national emblem is usually displayed, and may well become a valued addition to the heraldic jewel box of Canada.

ROGER DUHAMEL, F.R.S.C.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1968
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