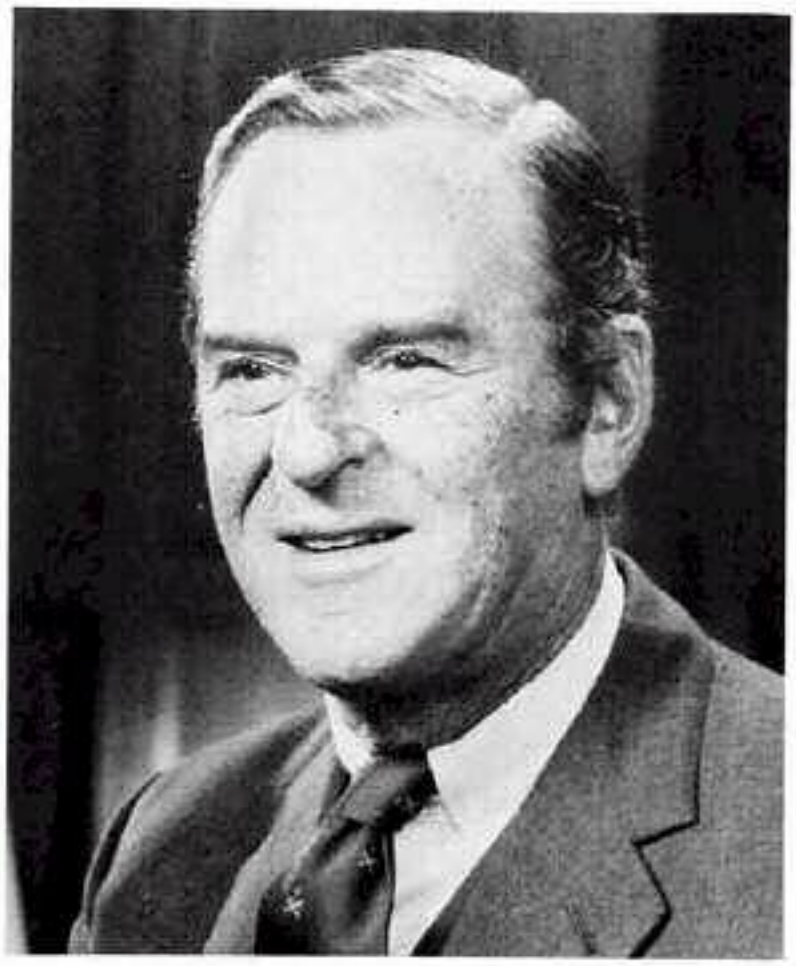
THE COMMISSIONING OF

HMCS CORMORANT

10 NOVEMBER 1978

AT DAVIE SHIPBUILDING LTD. LAUZON, QUEBEC

THE COMMISSIONING OF
HMCS CORMORANT

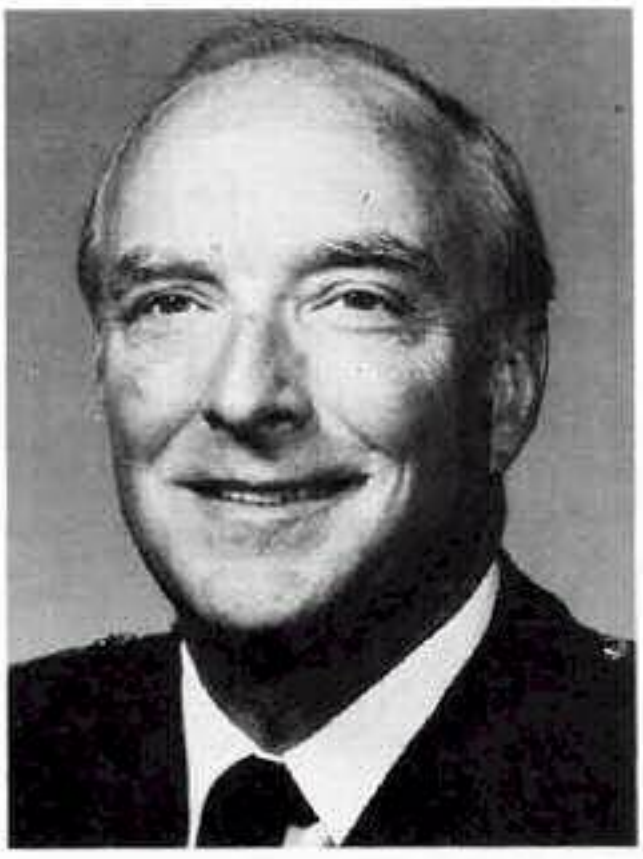


The commissioning of *HMCS CORMORANT* marks a further step forward for the Naval element of the Canadian Forces. *HMCS CORMORANT* represents a significant enhancement in Canada's capability in the field of undersea surveillance and in the investigation and control of the continental shelf.

The conversion of this ship is a further example of the ability of the Canadian Shipbuilding industry to respond to the requirements of the Canadian Forces. In her newly configured state she is a tribute to the high skill and pride of craft of those who have made her what she is today. I should like to express my congratulations to the builders and to all those who have contributed to the design, supply of material, construction and fitting out of the *CORMORANT*.

They have done their part. The ship is now entrusted to Maritime Command and more specifically to the Captain, Officers and men who will take her to sea. In the commission that lies ahead I wish them every success.

Barney Danson
MINISTER OF NATIONAL DEFENCE



The commissioning of *HMCS CORMORANT* as a fleet diving support ship is an important occasion for the Canadian Forces.

CORMORANT is the largest and most sophisticated ship ever converted in Canada for the support of undersea activity. It is not her size, however, but her function that makes *CORMORANT* such a valuable addition to the fleet. She will be the support system for the submersible SDL-1, and she also has an extensive standard diving capability. The acquisition of this sophisticated ship means that undersea surveillance and exploration are now within the navy's means.

The concept, design and construction of the *CORMORANT* have required imagination, teamwork and skill of the highest order. It is evident that the care and attention to detail of her builders have been matched by the fine workmanship of the converting yard. I would like to congratulate all those who worked on making the ship what she is today.

To the Captain, officers and men of *HMCS CORMORANT* I extend my best wishes as you embark on a new and challenging commission. You are at the forefront of a developing capability. Much will be expected of you and much I know will be given.

R.H. Falls Admiral
CHIEF OF THE DEFENCE STAFF

The commissioning of *HMCS CORMORANT* provides the fleet with a unique and most welcome addition.

In the space of literally a few months, the ship has been transformed from one undersea role to another, from a fish trawler to a vessel devoted to support of underwater activities including exploration and development. Canadians have contributed significantly to the advances being made in undersea technology and I am delighted that Maritime Command, with *CORMORANT's* presence, can now add to these achievements. The ship encompasses the best that can be provided in design, workmanship, equipment and undersea systems which makes her one of the most versatile vessels of her kind in the world.

I congratulate those who have been responsible for the successful design and conversion of *HMCS CORMORANT*, their tasks have been well executed.

The ship's heritage dating back to 1757 is now entrusted to her Captain, Officers and Men as they go forth to meet future challenges. I extend my best wishes for a fair passage and a successful commission. Godspeed.

A.L. Collier Vice-Admiral
COMMANDER MARITIME COMMAND

SHIP'S BADGE

BLAZON: Argent, a Cormorant volant, wings elevated proper, in base, three barulets undy vert

SIGNIFICANCE: The Cormorant is a splendid swimmer and is able to travel for long distances under the surface of the water. The base of water has been shown green to represent the sea as it is seen from below the surface. The Cormorant is depicted strong in flight in reference to *CORMORANT'S* endurance and agility in plowing through the waters, both salt and fresh, of Canada.

SHIP'S COLOURS: Green and White

BATTLE HONOURS:

Quebec	1759
Minorca	1798
China	1856 – 59

THE HERITAGE

The first naval vessel to bear the name *"CORMORANT"* was a 16 gun fireship that the Royal Navy obtained in 1757, *CORMORANT* saw heated action below the Plains of Abraham in 1759 and after an encounter with seven enemy fire ships, *CORMORANT* returned to England victorious.

Between 1776 and 1879 nine vessels bore the name *CORMORANT* in turn each added to the proud heritage of the name distinguishing themselves during the American War of Independance, the French Revolution, the war against Minorca and the second China War.

The eighth *"CORMORANT"* was a 4 gun despatch vessel launched in 1856. She saw extensive action during the second China War and on June 25th, 1859 was involved in a particularly disastrous attack on the Peiko Forts. With the Admiral wounded and his ship badly damaged *CORMORANT* took over the flag duties and led a rush ashore to assist the *Plover* which had grounded. At the same time unexpected assistance came from an American boat crew, in spite of the neutrality of their nation. Though all efforts failed, from this occasion dates the expression, "Blood is thicker than water".

The first Canadian *CORMORANT* was commissioned on 16 July 1956 in the Midland Boat Works Yard in Ontario. She was one of eight "Bird" class patrol vessels designed though only four were actually built. After commissioning she and two sister ships *"MAILLARD* and *BLUE HERON"* journeyed to Halifax. Enroute they formed the Escort for *"HMCS WALLACEBURG"* with the Right Honourable Vincent Massey embarked for a cruise from Quebec City to Port Alfred. Once in Halifax they performed air/sea rescue duties out of the Royal Canadian Naval Air Station *HMCS SHEARWATER*. On October 26th of the same year *CORMORANT* was involved in a difficult medical evacuation from the U.S. Transport *"Geiger"*. She received a special commendation for her part in this operation.

In 1963 the *CORMORANT* was paid off into B class Reserve where she remained except for the summers of 1965 and 1966 when she was used for Mid-Shipman Training. In the Autumn of 1970 she was sold to a resident of Halifax.

Thus a heritage of better than 200 years of Naval Service in all seas attends the new *CORMORANT*. It will be worn proudly.

MODEL OF HMCS CORMORANT

THE SHIP

HMCS CORMORANT, the new Fleet Diving Support Ship, was originally acquired from Italy in 1975 where it had been employed as a fleet stern trawler, originally named *"ASPA QUARTO"*. The ship arrived in Halifax, N.S. on 24 July 1975 and remained in Halifax undergoing maintenance and design modification prior to departing for Davie Shipbuilding Limited in Lauzon. Quebec to commence its major conversion on 1 December 1977.

The conversion involved a strip out of essentially all internal working areas and accommodation facilities with the exception of the engine and motor room. The major design changes included the addition of new equipments, structures, workshops, store rooms and personnel accommodation necessary for the new role as a submersible support ship and a conventional diving platform.

The ship's complement is 65 officers and men. She has an overall length of 245 feet, a beam of 40 feet and a deep draft displacement of eighteen feet four inches. Her displacement maximum is 2350 tons. The single screw controllable pitch four bladed propeller is powered by three Deutz diesels via two electric main motors.

CORMORANT is capable of operating two submersibles at a time with stowage space in the enclosed hangar. The hangar has controllable heating for use in northern operations. The submersible launch and recovery system is designed to lift submersibles of up to eighteen tons and in the role of conventional diving, *CORMORANT* will be fitted with mixed gas systems suitable for individual diving operations to a depth of approximately 290 feet. Additionally, *CORMORANT* is fitted with an open diving bell which will be used as a platform for divers to work from.

SUBMERSIBLE DIVER LOCKOUT (SDL-1)

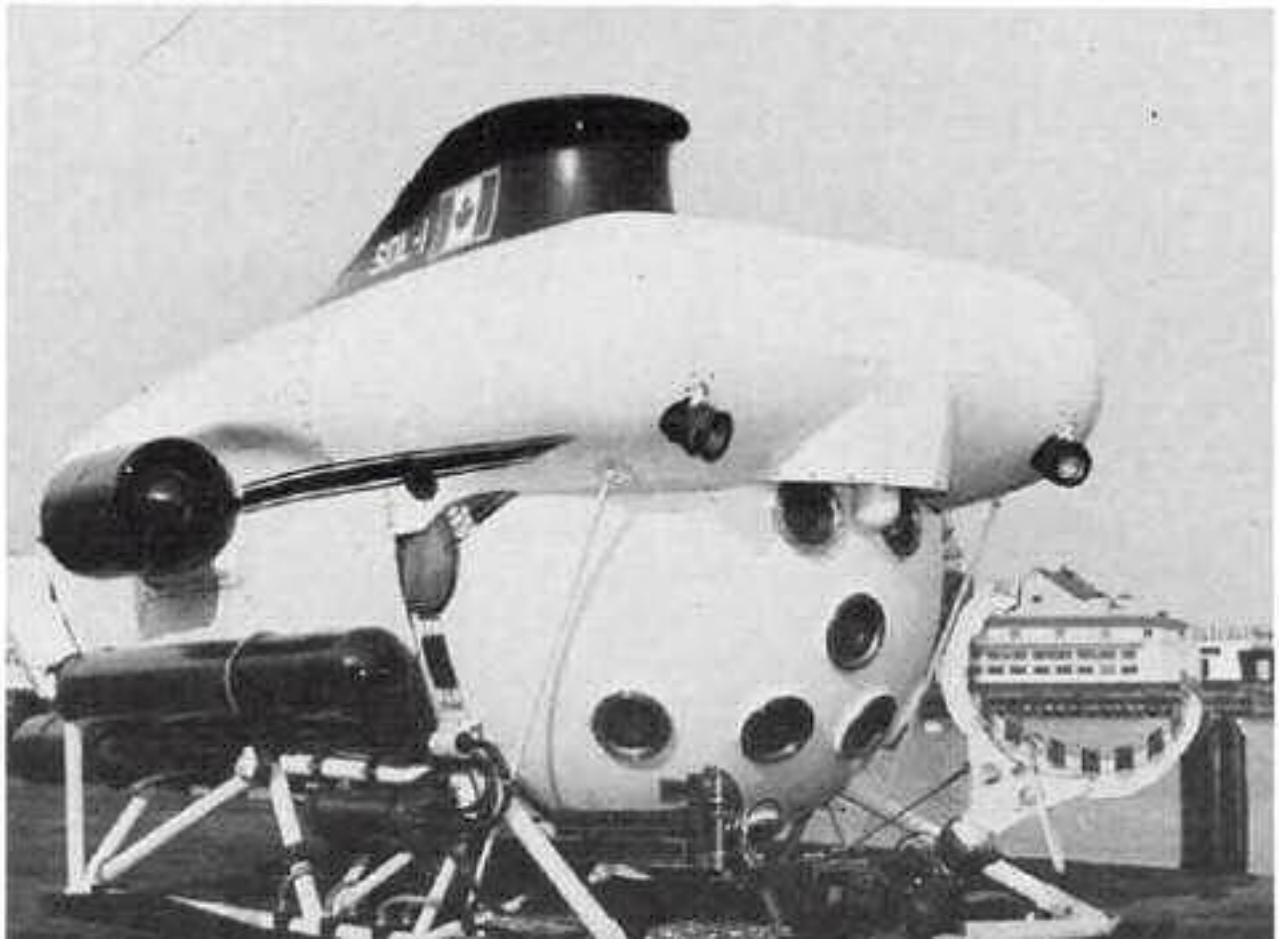
The SDL-1 is a manned, non-tethered diver lock-out submersible which is capable of operating to depths of 2,000 feet for periods up to six hours. Its pressure hull is comprised of two spheres interconnected by a cylindrical personnel transfer tube. The forward sphere is the command station of the vehicle and is manned by two pilots and an observer. The after sphere is the lock-out compartment which has a capability to accommodate and lock-out three divers to a maximum designed depth of 1,000 feet. The lock-out capability is such that the command sphere is maintained at atmospheric pressure while the lock-out compartment is pressurized to ambient sea pressure, to enable divers to lock-out and perform their respective missions. The submersible is also equipped with a manipulator arm and a torpedo claw for performing light work at depth beyond the capability of divers. SDL-1 is powered throughout by lead acid batteries and has a life support endurance in excess of 200 manhours.

The basic life support system comprises an O2 supply stored in bottles and CO2 scrubber which maintains exhaled carbon dioxide at a safe level. Special devices are provided to monitor the condition of the air supply, and Rebreathers are available for use by the crew if pollution is detected. Food, water, emergency rations, exposure suits, thermal blankets etc, are stored in the crew compartment.

Provision for crew safety is allowed for by jettisoning many items of external equipment (including special drop weights) when it is necessary to gain extra buoyancy, either to increase lift capability or in the event of an emergency, eg. entanglement on the seabed. Fire extinguishers are carried as standard equipment.

The basic navigation equipment in SDL-1 includes a gyro compass, echo sounder and depth gauges. Voice contact between the submersible and *CORMORANT* is maintained by underwater telephone when submerged and by VHF radio on the surface.

In 1972 SDL-1 was used in the recovery of a RCN Avenger aircraft that crashed in Bedford Basin in 1953. A similar operation saw SDL-1 playing a major role in the recovery of a submerged Sea King Helicopter off Halifax Harbour.



MODEL

DIVING SYSTEMS

Equipment: Submersible Diver Lockout (SDL-1)
Open Diving Bell
Rat Hat Mixed Gas System
Kirby Morgan Band Mask
Dick Long Hot Water Suit System
Six Man Recompression Chamber
Underwater Television System
Hydraulic Tool Package

The ship is equipped to act as an independent Ocean going diving unit incorporating most facets of modern day diving. *CORMORANT* will support SDL-1 and will have the capability to embark a second submersible. This capability, complimented by a very versatile surface supplied diving department will enable *CORMORANT* to provide surveillance, search inspection, salvage, installation and construction to a depth of 2000 feet on the Continental Shelf including much of the Arctic Seabed.

NAVIGATION AND SUBMERSIBLE TRACKING SYSTEMS

CORMORANT is navigationally equipped to proceed world-wide. Decca and Omega electronic navigation systems are fitted. The ship is equipped with a modern radar navigation system, a doppler speed log, two gyro compasses, and two echo sounders.

A Side Scan Sonar system will provide the ship with an effective means of searching for objects on the ocean floor.

Submersible positions will be monitored by two underwater tracking systems. The primary system, ATNAV operates on the principle of measuring the rangy from three transponders and uses this information to compute the ship and submersible positions. The transponders are positioned on the ocean floor and the computer system calibrates their position. No geographic reference is required. The secondary system, 301 Range/Bearing Receiver measures the slant range and bearing from the ship to the submersible. An underwater communication system enables the ship to maintain continuous voice communication with the submersible.

PROPULSION AND AUXILIARY MACHINERY

The ship is powered by two 900 HP electric motors which through reduction gearing maintain a constant shaft speed of 200 RPM on the single shaft. Control of the engines and the

propeller pitch is achieved from the bridge and in normal steaming condition the engine room is unmanned.

Auxillary machinery consists of 3 main Deutz diesel electric generators and 2 back-up generators also diesel electric.

Three fresh water distilling plants are fitted and will produce 21 tons of water/day.

DAMAGE CONTROL

CORMORANT has an extensive damage control system with forward and after section base teams capable of independent action. However, both section bases are normally co-ordinated by a damage control headquarters located in the Engineering Office. To reduce the danger of flooding the ship is divided into numerous watertight compartments with provision to pump water overboard should the need arise.

Pumps provide pressure for a fire main which supplies fire hydrants throughout the ship. The paint is fire resistant.

Apart from first aid fire fighting equipment, such as portable CO2 and pressurized water cylinders, there are several permanently fitted fire detection and fire suppression systems. A galley range fire suppression system is fitted by the deep fat fryer. Two manually operated CO2 fire extinguishing systems cover the Diesel Generation Compartment and Auxilliary Machinery Room. Finally an automatic Halon fire suppression system serves eight additional compartments. Fire protection is further enhanced by numerous combustion gas detectors, flame detectors, rate-of-rise and fixed temperature detectors (high). These detectors are fitted throughout the ship with visual and audible alarms installed on the Bridge, Quartermaster Position and amidship on No 2 Deck.

HABITABILITY

Habitability control is a military feature of a ship equal in importance with other military considerations. The goal in the *CORMORANT* was a comfortable and pleasant environment, an appropriate degree of privacy, adequate fittings and furniture, proper stowage of personal effects, and the necessary services to provide for needs of the individual sailor. By and large, these goals have been met.

The crew sleep in two or three tier bunks with foam rubber mattresses, pillows, and individual reading lamps. The ship is air-conditioned, temperature and humidity controlled, throughout. Aluminum clothes lockers, of the latest design, and additional drawer space for personal belongings are provided, as are mirrors and electric shaving outlets. Hot showers and

spotless washrooms will help make life at sea more comfortable. Each living space has recreational areas 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 are arranged for double occupancy except for the Commanding Officer who has separate accommodation immediately aft of the bridge area.

There is provision for cafeteria-style messing from a centrally located, electrically equipped galley. The galley contains a bakery, sections for handling pastry, meat, vegetables, and a dishwashing machine.

The main dining area can also be used for recreational purposes in the evenings. Lighting is fluorescent. The senior non-commissioned officers have a separate dining space nearby.

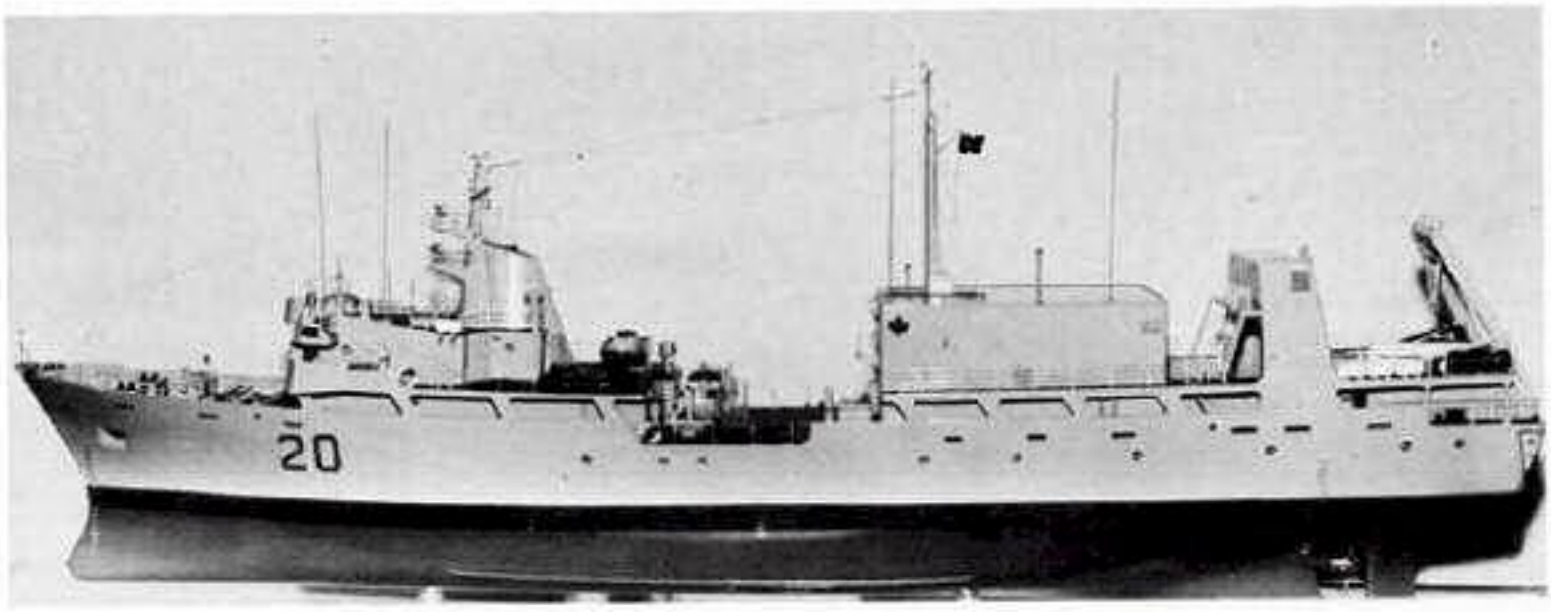
The ship has storage for 90 days' frozen provisions, compared with that for 14 days in Second World War escort ships.

LIFESAVING AND MEDICAL EQUIPMENT

The *CORMORANT* is equipped with air-tight enclosures containing inflatable rubber rafts for lifesaving at sea. These 20-man rafts inflate automatically on release into the sea or through hydrostatic pressure. 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 the wind, sun, and weather.

The sick bay contains two berths, a bathroom, an operating table with the latest type of operating light, well stocked drug and medical lockers and diagnostic facilities. *CORMORANT* will carry both a qualified Medical Doctor and Medical Assistant. The versatility of *CORMORANT* is additionally enhanced by the permanently fitted double lock hyperbaric chamber for recompression treatment. The recompression chamber is capable of handling a maximum of six personnel.

MODEL OF HMCS CORMORANT



LIEUTENANT COMMANDER J.G. MORRISON C.D.
COMMANDING OFFICER

SHIP'S COMPANY

LIEUTENANT(N) R.S. WILSON – EXECUTIVE OFFICER

OFFICERS:	LIEUT. COMMANDER	B.T. MARTIN	DIVING OFFICER
	LIEUTENANT(N)	M.G. LENNIE	ENGINEERING OFFICER
	LIEUTENANT(N)	D.L. CUDMORE	SUPPLY OFFICER
	LIEUTENANT(N)	L.D. SWEENEY	DECK OFFICER
	LIEUTENANT(N)	D.B. BINDERNAGEL	NAVIGATING OFFICER
	LIEUTENANT(N)	B.A. HOBSON	SUBMERSIBLE TECHNICAL OFFICER
	LIEUTENANT(USN)	S.O. THORNE	SUBMERSIBLE PILOT
	LIEUTENANT(N)	R.A. SEARY	MEDICAL OFFICER
COXSWAIN:	MWO(S) L.E. DOYLE CL DIV T 342		
MAINT. COORD:	SGT(S) J.J. CHAPUT CL DIV T 342		
RAD/COMMTECHSEA 251/252:	SGT(S) D.W. FINCH CPL(S) E.D. SPARLING CPL(S) R.D. CRAWFORD		
SIG SEA 261:	MCPL(S) A.L. DEY		
SONAR TECH 282:	SGT(S) D.T. JENSEN		
RADAR TECH SEA 272:	SGT(S) F.R. MURPHY		
BOATSWAIN 181:	WO(S) G.T. BRISSON CPL(S) G.M. HOLLINGER CPL(S) E.T. HOUNSEL		

SUPPLY TECH 911:	SGT(S) P.C. FERGUSON CPL(S) R.W. SHIRLOW CPS(S) J.P. DESLIPPE	
MEDICAL ASST 711:	SGT(S) F.V. PRUDHOMME	
COOK 861:	SGT(S) D. BRANNEN MCPL(S) A.J. PASSAFIUME	PTE(S) T.B. MORTON PTE(S) R.T. BATES
STEWARD 862:	MCPL J.Y. FORGET	
MARINE ENGINEER 312/311:	MWO(S) W.M. PARKER WO(S) K.W. DUTNALL SGT(S) R.E. DOWNIE SGT(S) D. F. KENT MCPL(S) D.B. WONG CPL(S) J.L. ARCAND	PTE(S) M. BARTKIW PTE(S) A.E. BOUDREAU PTE(S) W.P. WHITTAKER PTE(S) M.G. WARD PTE(S) B.E. MANNING
MARINE ELECTRICIAN TECH 332/331:	WO(S) S.C. CROUCHER SGT(S) J.P. MOLLOY SGT(S) J.C. LEDUC	MCPL(S) J.A. BEAULIEU CPL(S) R.A. DUGAS
HULL TECH 321:	SGT(S) R.G. CASWELL	MCPL(S) T.I. MUNROE
ADMINISTRATION CLERK 831:	MCPL(S) R.S. THOMPSON	
CLEARANCE DIVER 341/342:	MWO(S) D.C. MCLEOD WO(S) M.S. SEMPLE SGT(S) T.G. HAVLIK SGT(S) J.J. PAQUIN MCPL(S) J.H. DEJONG MCPL(S) N.G. SERBU MCPL(S) B.G. MILLAR MCPL(S) G.E. CRAWFORD	MCPL(S) N.J. CONNORS CPL(S) J.L. LESSARD CPL(S) S.S. BUSHELL CPL(S) J.A. WALSH CPL(S) M.M. ATKINSON CPL(S) D.C. SILVESTER CPL(S) P.J. FRAZIER
NAV.YEO.MET.TECH 121:	CPL(S) J.R. BINETTE	

Mr. Louis Rochette
President

THE BUILDERS

Founded in 1882 Davie Shipbuilding Limited of Lauzon, Quebec has grown to become Canada's largest shipyard. The yard presently has the capacity to build ships of up to 100,000 DWT and over the years has retained the flexibility which has enabled the yard to construct more than 690 vessels of every variety for both naval and mercantile accounts.

The men and women of Davie are particularly proud of the vessels they have supplied to Canada's Maritime Forces. In the past 30 years Davie Shipbuilding Limited has participated in all of the major construction programs of new ships ranging from Anti-Magnetic Minesweepers to Fleet Replenishment vessels and Destroyer Escorts, including DDH 280 Class, H.M.C.S. *"ATHABASCAN"* and H.M.C.S. *"ALGONQUIN"*. As the Federal Government prepares to embark on its most ambitious new frigate construction program for the Department of National Defence, Davie welcomes the opportunity to continue its close relationship with the Service.

In parallel to new construction, the yard has actively sought and played a key role in the Maritime Forces' major refits, modernization programs and conversions, culminating today with the commissioning of the H.M.C.S. *"CORMORANT"*.

Davie is confident that the Fleet Diving Support Ship, H.M.C.S. *"CORMORANT"* will prove a valuable addition to Canada's Fleet and wish those who sail her all the best in the future.

Mr. W.H. White
Senior Vice-
President

Mr. Marcel Lafrance
Vice-President
Operations

Mr. Maurice Provencher
Vice-President
Administration

THE INSPECTORS

At Davie Shipbuilding Limited, Lauzon, the Department of National Defence was represented by members of 201 Canadian Forces Technical Services Detachment and Designated Ship's Personnel. Their role was to provide on site technical guidance in the conversion, outfitting and conduct of trials of *HMCS CORMORANT*

The Overseeing Staff was represented by:

FRONT ROW (L. TO R.)

Warrant Officer S.C. Croucher
Lieutenant W.J. Fisher
Miss R. Lamontagne
Lieutenant Commander B. Blattmann
Master Warrant Officer T. Russell
Master Warrant Officer D.J. Kerr

BACK ROW (L. TO R.)

Master Corporal I. Monroe
Corporal R.W. Shirlow
Sergeant R.E. Downie
Sergeant J.J. Chaput
Master Warrant Off. Y Yablonski
Mr. R. Clment

FORMER COMMANDING OFFICERS

LCdr Kenneth R. Crombie	Aug – Sep 56
CPO M.H. Keeler	Sep 56 – Nov 58
CPO E.A. Rigby	Nov 58 – Aug 60
CPO J.M. Armitage	Aug 60 – Jun 63

ORDER OF SERVICE

INTRODUCTION BY:

Detachment Commander, 203 Canadian Forces Technical Services Detachment

OPENING ADDRESS BY:

Davie Shipbuilding Limited:
Mr. Louis Rochette

The Commissioning Religious Service conducted by:

LCol (Rev) F.P. DeLong Cd, Command Chaplain (P);

AND

LCol (Rev) J.E. Troy CD, Command Chaplain (RC).

The Naming Ceremony conducted by the Sponsor, Mrs. Isabelle Falls.

ADDRESS BY:

The Guest of Honour

ACCEPTANCE OF THE SHIP:

Department of National Defence
Lieutenant Commander J.G. Morrison
CD Commanding Officer

The Commanding Officer will order Her Majestys' Canadian Ship *CORMORANT* to be commissioned.

The Commanding Officer will address the ship's company.

The Ships Company "mans the ship"

The Commanding Officer is piped onboard.

The Guest of Honour, Sponsor and offical party received onboard the ship by the Commanding Officer and President of Davies Shipbuilding Ltd.

Guests proceed to the reception in the hangar of *HMCS CORMORANT*.

GUEST OF HONOUR:
ADMIRAL R.H. FALLS
CMM, CD.

SPONSOR:
MRS. R.H. FALLS