

R/V Bay Eagle Operations Manual



School of Marine Science
Virginia Institute of Marine Science
Gloucester Point, Virginia

INTRODUCTION

The *R/V Bay Eagle* was built at Crown Point, Louisiana, in 1980 as a crewboat designed to ferry personnel and supplies to oilfield platforms. This boat was converted to a research vessel by the Virginia Institute of Marine Science (VIMS) in 1987. It has performed scientific missions throughout the Chesapeake Bay and its tributaries and along the continental shelf of the Mid-Atlantic Bight.

This guide has been compiled to outline the procedures, capabilities and safety standards under which research is planned and carried out aboard the *R/V Bay Eagle*.

VESSEL SERVICE CENTER

VIMS maintains a fleet of vessels which includes more than 20 trailerable boats and 5 larger vessels.

The *R/V Bay Eagle's* home port is the School of Marine Science/Virginia Institute of Marine Science Campus, Gloucester Point, Virginia.

All correspondence and inquiries should be made to:

Virginia Institute of Marine Science
Vessel Service Center
P.O. Box 1346
Gloucester Point, Virginia 23062

Phone numbers:

Vessel Service Center: (804) 642-7056
Marine Superintendent: (804) 642-7054
R/V Bay Eagle: (804) 642-7052
FAX: (804) 642-7195

VESSEL SPECIFICATIONS AND EQUIPMENT

R/V Bay Eagle

GENERAL INFORMATION

Camcraft Model C-65-H is a welded aluminum crewboat built to a stock Camcraft design. The hull is flush deck with pilothouse on top of the main passenger cabin. Three transverse watertight bulkheads are spaced for one-compartment floodability and divide the vessel into four watertight compartments. The vessel is powered by twin 450HP diesel engines.

Length:	65'
Beam:	19'
Depth:	8'
Draft:	4.5'
Fuel:	1,200 gals.
Water:	150 gals.
Speed:	Cruising: 16 kts. Maximum: 18 kts. Minimum: <0.5 kts. (trolling gear)
Range:	400 nautical miles
Endurance:	3 to 4 days
Accommodations:	Scientists: 6 (overnight) 10 (day) Crew: 2
Propulsion:	(2) 12-V 71N Detroit Diesels Twin Disc model MG-514 2:1 reduction gears
Generator:	(1) 20-kw 1,200-rpm three phase 120/208-volt ABS & USCG-type Delco generator driven by Detroit Diesel 2-71 engine

ELECTRONIC NAVIGATION Aids

Radar: Furuno 48 Mile Model 1940

LORAN: North Star 7000/with dual independent displays

LORAN Plotter:

Furuno LP-1000

Color Video Sounder:

FCV-663

Cellular Phone

GPS: Trimble Navtrak XL GPS

VHF Radio: ICOM M-80

Integrated Instrument System:

KVH Quadro Network:

1. Flux-Gate compass
2. True wind speed (kts)
3. True wind direction
4. Fathometer (meters)
5. Seawater temperature (C)

(The KVH Quadro system is interfaced to a shipboard computer with data available to all users.)

Work Deck AND Lab Space

Aft Deck: 20' x 14' (280 sq. ft.)

Quarter Deck: 12' x 12' (144 sq. ft.)

Wet Lab: 4'6" x 10'6" (47.25 sq. ft.)

Three work stations with continuous flow of seawater.

Dry Lab: 12' x 5' (60 sq. ft.)

Work station with filtered 110 AC

P.I. Station: 3' x 5' with communication to bridge

RIGGING AND DECK GEAR

Dive Platform: 10' x 5' with submersible ladder for easy exit from water

Mast and Boom: Two booms with boom winches

a. Port boom winch: 5/16" cable/1,200-lb. capacity

b. Starboard boom winch: 1/4" cable/900-lb. capacity

Davit: Manual winch

Vessel is equipped with a 10' inflatable boat with a 6HP outboard motor

VESSEL SCHEDULING

The *R/V Bay Eagle* is used primarily to support research in the Chesapeake Bay and coastal waters of Virginia and North Carolina. The vessel occasionally conducts research beyond these boundaries.

The Vessel Service Center receives requests throughout the year. These requests are processed and scheduled by the captain. A minimum of four months' advance notice is requested. The Director for Research and Advisory Services reviews the proposed research and approves or disapproves it based on the nature of the work and competing requests for vessel time.

A blank field request form is included on pages 9 and 10. Please photocopy it for your use.

For more information, contact:

Virginia Institute of Marine Science
P.O. Box 1346
Gloucester Point, Virginia 23062
Attention: Vessel Service Center
(804) 642-7056 or 7052
FAX (804) 642-7195



GENERAL INFORMATION

The master of the ship has plenary and final responsibility for the safety of the vessel and all personnel on board, both crew and scientific personnel. There will be a chief scientist on board that will be responsible for the scientific mission, i.e., conduct of scientific personnel, organization, scope of work, and working with the captain to work out all details of how the work shall be performed.

The chief scientist will appoint someone from the scientific staff to buy and prepare meals. On an extended cruise or when vessel personnel will perform mess duties, the details shall be worked out during the planning stages.

Crew and scientific staff shall wear hardhats and workvests while working on the back deck unless otherwise notified.

Each personnel on board shall notify the captain of any illness, handicap, or prescribed drug regimen.

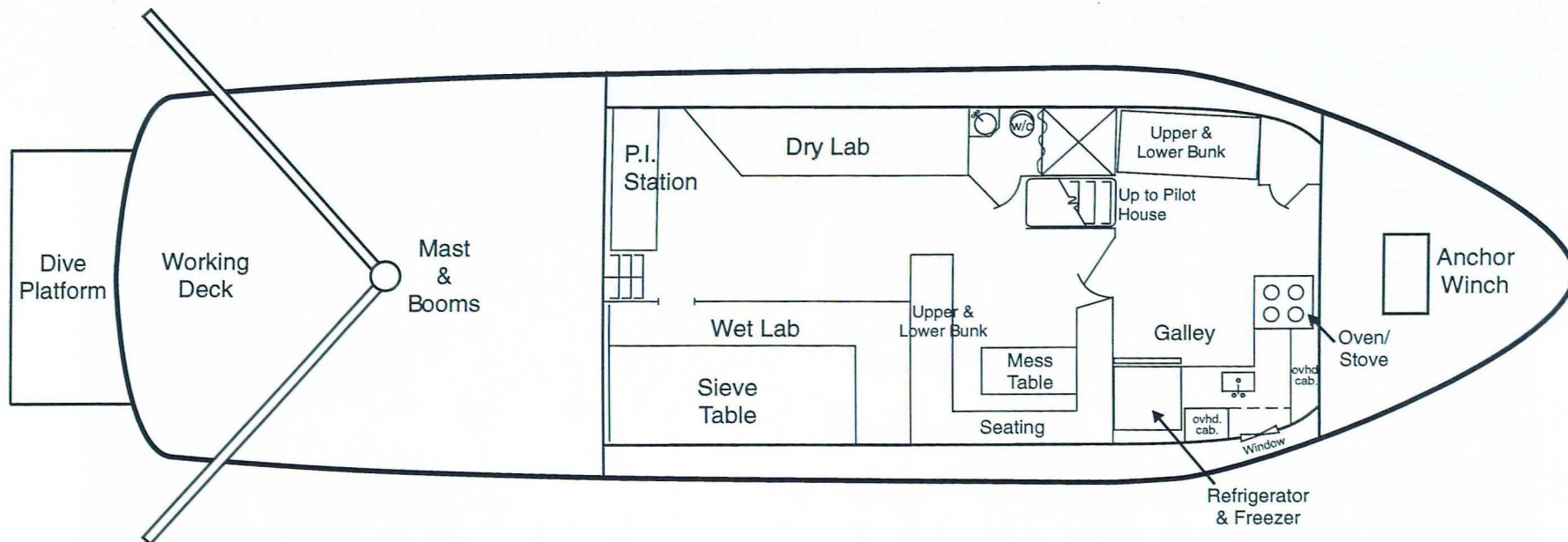
Alcoholic beverages and narcotics are not permitted aboard the vessel. All VIMS vessels have a policy of “zero tolerance” toward illegal drugs and support federal regulations concerning the use of alcohol.

All scuba diving operations shall be performed under the guidelines set forth by the American Academy of Underwater Sciences. All divers* must have been issued an approved dive plan by the VIMS Diving Officer. Since the captain will ultimately be responsible for the safety of the mission, the right to abort the diving operation will rest with the captain.

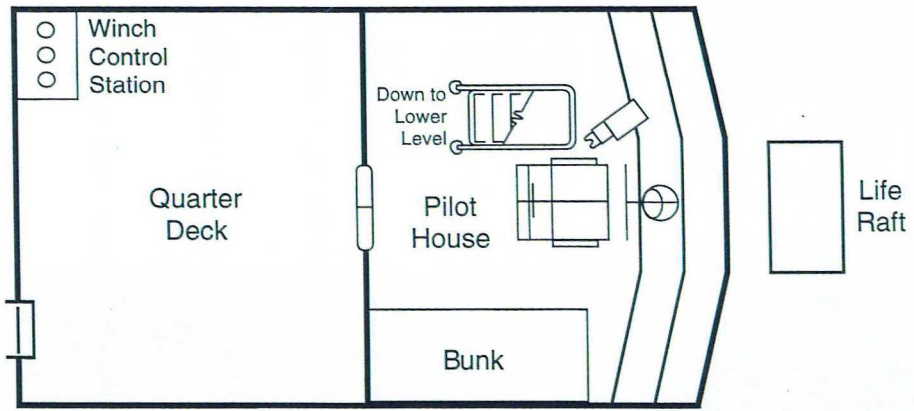
All scientific gear shall be secured before departure. This will be the responsibility of the scientific staff.

Cleanliness is a major requirement of shipboard life. We expect all personnel on board to keep their work areas clean and safe. Once the scientific mission is complete, all scientific gear will be removed, leaving the vessel in the same condition that was found at the beginning of the mission. When moving gear, care must be taken not to damage vessel surfaces.

*Please refer to the VIMS/SMS manual *Guide for Diving Safety*.



*R/V Bay Eagle
Plan View*



On Board Equipment Requirements:

Winch requirements: _____

Electrical power: _____

Navigation aid requirements: _____

Data gathering equipment to be provided by scientific party.

Number of scientific personnel to be onboard vessel: _____

Account number(s) to be charged:

Rental / Personnel: _____

Fuel: _____

Signature, Principal Investigator

Date

Division Head Review:

Complete cost estimate and forward to my office for approval to schedule.

Project approved. Schedule:

Per Principal Investigator's request

As vessel time is available

Other (specify): _____

Signature, Division Head

Date

Vessel Operations Use:

Vessel Assigned: _____

Tentative Date(s): _____

Fuel Cost Estimate: _____

Rental Cost Estimate: _____

Personnel Cost Estimate: _____

Crew Assigned:

Captain: _____

Mate: _____

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