

10°E

20'

40'

11°E

60°

60°

40'

40'

20'

20'

59°

59°

40'

40'



BOAT OPERATIONS AND TRAINING

BOAT

PROGRAM VOLUME 2



10°E

20'

40'

11°E



Part 2

Boat Crew Member Qualification

Introduction

This part contains a collection of tasks, that must be learned, practiced and performed by the trainee. These tasks represent the minimum elements of skill and knowledge necessary for safe and effective performance of a maritime law enforcement Boat Crew Member.

NOTE

This Manual is not meant to be ordered for purposes of obtaining individual qualification tasks. Qualification tasks should be reproduced locally and provided for trainees.

In this part

This part contains the following chapters:

Chapter	Title	See Page
1	Task Accomplishment Record for Boat Crew Member	2-3
2	Boat Crew Member Qualification Tasks	2-7
3	Boat Crew Member Trainee Study Guide	2-79



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Chapter 1 Task Accomplishment Record for Boat Crew Member

NOTE *~*

Instructor should remove this chapter and place it in the trainee’s training record/E-Training system.

TRAINEE NAME: _____ RATE: _____

INSTRUCTOR NAME: _____ RATE: _____

POSITION/QUALIFICATION CODE TO BE TRAINED FOR: _____

NOTE *~*

Instructors should line through those tasks not applicable to this qualification, and show them as deferred in the E-Training system as required.

Task	Date Started	Date Completed	Instructor’s Initials
BCM-01-01-ANY			
BCM-01-02-ANY			
BCM-01-03-ANY			
BCM-02-01-ANY			
BCM-02-02-ANY			
BCM-02-03-ANY			
BCM-02-04-ANY			
BCM-02-05-ANY			
BCM-02-06-ANY			
BCM-02-07-ANY			
BCM-02-08-ANY			
BCM-02-09-ANY			
BCM-02-10-ANY			
BCM-02-11-ANY			
BCM-02-12-ANY			
BCM-02-13-ANY			
BCM-02-14-ANY			
BCM-02-15-TYPE			



Part 2 – Boat Crew Member Qualification
Chapter 1 - Task Accomplishment Record for Boat Crew Member

Task	Date Started	Date Completed	Instructor's Initials
BCM-02-16-TYPE			
BCM-02-17-ANY			
BCM-02-18-ANY			
BCM-03-01-ANY			
BCM-03-02-TYPE			
BCM-03-03-TYPE			
BCM-03-04-TYPE			
BCM-03-05-TYPE			
BCM-03-06-ANY			
BCM-03-07-ANY			
BCM-03-08-ANY			
BCM-04-01-ANY			
BCM-04-02-TYPE			
BCM-04-03-TYPE			
BCM-04-04-TYPE			
BCM-04-05-ANY			
BCM-04-06-ANY			
BCM-04-07-ANY			
BCM-04-08-ANY			
BCM-04-09-ANY			
BCM-04-10-TYPE			
BCM-04-11-TYPE			
BCM-04-12-TYPE			
BCM-05-01-ANY			
BCM-05-02-ANY			
BCM-05-03-ANY			
BCM-06-01-ANY			
BCM-06-02-ANY			

Part 2 – Boat Crew Member Qualification
 Chapter 1 - Task Accomplishment Record for Boat Crew Member



BCM-06-03-ANY			
BCM-06-04-ANY			
BCM-06-05-ANY			
BCM-06-06-ANY			
BCM-06-07-ANY			
BCM-06-08-ANY			
BCM-06-09-TYPE			
BCM-06-10-TYPE			
BCM-06-11-TYPE			
BCM-06-12-TYPE			
BCM-06-13 TYPE			
BCM-06-14-TYPE			
BCM-06-15-TYPE			
BCM-07-01-TYPE			
BCM-07-02-TYPE			
BCM-07-03-ANY			
BCM-07-04-ANY			
BCM-07-05-TYPE			
BCM-07-06-ANY			
BCM-07-07-TYPE			
BCM-07-08-ANY			
BCM-07-09-ANY			
BCM-07-10-TYPE			
BCM-07-11-ANY			
BCM-07-12-TYPE			
BCM-07-13-ANY			
BCM-07-14-TYPE			
BCM-07-15-TYPE			
BCM-07-16-ANY			



Part 2 – Boat Crew Member Qualification
Chapter 1 - Task Accomplishment Record for Boat Crew Member

BCM-07-17-TYPE			
BCM-07-18-ANY			
BCM-07-19-ANY			
BCM-07-20-TYPE			
BCM-07-21-TYPE			
BCM-07-22-TYPE			
BCM-07-23-TYPE			
BCM-08-01-ANY			
BCM-08-02-ANY			
BCM-08-03-ANY			
BCM-08-04-ANY			
BCM-08-05-ANY			
BCM-08-06-ANY			
BCM-08-07-ANY			



Chapter 2

Boat Crew Member Qualification Tasks

Introduction

The following are the instructions for this chapter:

The purpose of this chapter is to provide guidance on the trainee’s progress through the qualification tasks.

The instructor should present the tasks to the trainee in a logical order using the instructions provided in *Part 1*.

Tasks should be signed, dated, and placed in the trainee’s training record/E-Training system when the instructor is satisfied that the trainee can consistently perform a task in accordance with all standards and conditions.

In this chapter

This chapter contains the following sections:

Section	Title	See Page
A.	Crew Efficiency Factors, Risk Factors and Team Coordination	2-8
B.	Physical Fitness, First Aid, and Survival	2-10
C.	Marlinespike Seamanship, Boat Nomenclature, Nautical Terminology, and Basic Stability	2-24
D.	Boat Handling	2-31
E.	Communications	2-42
F.	Navigation	2-45
G.	Mission-Oriented Operations	2-58



Section A. Crew Efficiency Factors, Risk Factors and Team Coordination

Introduction

The following are objectives of Division One:

Demonstrate knowledge of the factors that affect crew performance.
Attend Team Coordination Training.

In this section

This section contains the following tasks:

Task Number	Task	See Page
BCM-01-01-ANY	Crew Fatigue	2-8
BCM-01-02-ANY	Motion Sickness	2-9
BCM-01-03-ANY	Team Coordination Training (TCT)	2-9

TASK BCM-01-01-ANY:

Crew Fatigue

Reference

a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions

Task should be performed at any time, at facilities available to the unit.

Standards

Trainee must demonstrate knowledge of each task to the minimum standards included in each performance step.

Performance Criteria	Completed (Initials)
1. Describe the situations that may cause fatigue.	_____
2. State the crew's responsibility.	_____
3. Describe the primary symptoms of fatigue.	_____
4. Describe the prevention measures.	_____
5. State underway limits for unit's boats.	_____

Instructor _____

Date _____

Comments _____



TASK BCM-01-02-ANY: Motion Sickness

References a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
 b. *Antimotion Sickness Medications*, COMDTINST 6710.15D

Conditions Task should be performed at any time, at facilities available to the unit.

Standards Trainee must demonstrate knowledge of each task to the minimum standards included in each performance step.

Performance Criteria	Completed (Initials)
1. Explain the causes of motion sickness.	_____
2. List the symptoms of motion sickness.	_____
3. List the prevention and medication for motion sickness.	_____
4. Explain when best to take anti-motion sickness medication.	_____

Instructor _____ **Date** _____

Comments _____

TASK BCM-01-03-ANY: Team Coordination Training (TCT)

Reference a. *Team Coordination Training*, COMDTINST M1541.1 (series)

Conditions Task should be performed at any time, at facilities available to the unit.

Standards Trainee must attend the training similar to that prescribed in the reference above or successful completion of CG Institute Correspondence Course, or other nationally recognized TCT course.

NOTE

Completion of TCT training or completion of the CG Institute course must be entered into the member's E-Training system or Training record.

Performance Criteria	Completed (Initials)
1. Date initial training completed: _____	_____

Instructor _____ **Date** _____

Comments _____

Section B. Physical Fitness, First Aid, and Survival

Introduction

The following are objectives of Division Two:

Achieve and **maintain** the level of physical conditioning necessary to safely and properly carry out the duties of a Boat Crew Member aboard a maritime law enforcement patrol vessel.

Identify and **become** proficient in those skills necessary for coping with open water survival situations.

Effectively use all standard boat crew signaling and survival equipment.

In this section

This section contains the following tasks:



Task Number	Task	See Page
BCM-02-01-ANY	Personal Physical Fitness and Vision	2-11
BCM-02-02-ANY	Crew First-Aid Responsibility	2-11
BCM-02-03-ANY	Demonstrate Adult, Child, and Infant CPR	2-12
BCM-02-04-ANY	Don the Type III PFD	2-12
BCM-02-05-ANY	Don Anti-Exposure Coveralls	2-12
BCM-02-06-ANY	Don the Boat Crew Dry Suit	2-13
BCM-02-07-ANY	Identify Boat Crew Survival Vest Equipment	2-14
BCM-02-08-ANY	Use the Emergency Signaling Mirror	2-14
BCM-02-09-ANY	Demonstrate the Use of the MK-124 Smoke and Illumination Signal	2-15
BCM-02-10-ANY	Demonstrate the Use of the MK-79 Illumination Signal Kit	2-16
BCM-02-11-ANY	Operate the Distress Signal Light	2-17
BCM-02-12-ANY	Operate the Personal Locator Beacon	2-17
BCM-02-13-ANY	Don the Boat Crew Survival Vest	2-18
BCM-02-14-ANY	Don the Inflatable PFD	2-19
BCM-02-15-TYPE	Explain the Manual Deployment and Boarding Procedures for the Rescue and Survival Raft	2-20
BCM-02-16-TYPE	List Survival Procedures in Event of Boat Capsize	2-21
BCM-02-17-ANY	Open Water Survival Skills	2-22
BCM-02-18-ANY	Perform Water Survival Exercise	2-23





TASK BCM-02-01-ANY: Personal Physical Fitness and Vision

Reference a. *U. S. Coast Guard Boat Operations and Training (BOAT) Manual Vol I*, COMDINST M16114.32 (series)

Conditions Task should be performed at any time, at facilities available to the unit. Steps may be done all at once or over a period of time.

Standards Trainee must demonstrate the ability to perform the requirements set forth in the above references based on age and gender.

Performance Criteria	Completed (Initials)
1. Demonstrate normal color vision using the Farnsworth Lantern Test or the Pseudoisochromatic Plate Test.	_____
2. Accomplish all physical fitness requirements in accordance with ref. a.	_____
Age: _____ Gender: _____	

Instructor _____ **Date** _____

Comments _____

TASK BCM-02-02-ANY: Crew First-Aid Responsibility 

References a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
 b. Certifying Organization’s Training Manual

Conditions Task should be performed at any time, at facilities available to the unit. Trainee must accomplish task without prompting or use of a reference.

Standards Trainee must complete the American Red Cross, National Safety Council, American Heart Association or American Safety and Health Institute First-Aid Course to receive triennial certification.

Performance Criteria	Completed (Initials)
1. Certification Type and Date course completed. Course: _____ Date: ___/___/___	_____

Instructor _____ **Date** _____

Comments _____



TASK BCM-02-03-ANY:

Demonstrate Adult, Child, and Infant CPR



References

- a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
- b. Certifying Organization’s Training Manual

Standards



Trainee must complete the American Red Cross, American Heart Association, National Safety Council, or American Safety and Health Institute CPR course to receive certification.

Performance Criteria	Completed (Initials)
1. Certification Type and Date course completed. Course: _____ Date: ___/___/___	_____

Instructor _____

Date _____

Comments _____

TASK BCM-02-04-ANY:

Don the Type III PFD



Reference

- a. *Rescue and Survival Systems Manual*, COMDTINST M10470.10 (series)

Conditions

Task should be performed at any time, at facilities available to the unit.

Standards



In response to the instructor, the trainee shall, without error, don the Type III PFD.

Performance Criteria	Completed (Initials)
1. Demonstrate proper donning of the Type III PFD and adjust for proper fit.	_____
2. State when the Type III PFD is required to be worn.	_____

Instructor _____

Date _____

Comments _____

TASK BCM-02-05-ANY:

Don Anti-Exposure Coveralls



Reference

- a. *Rescue and Survival Systems Manual*, COMDTINST M10470.10 (series)

Conditions

Task should be performed at any time, at facilities available to the unit.

Standards



In response to the instructor, the trainee shall, without error, don the anti-exposure coveralls.



Performance Criteria	Completed (Initials)
1. Demonstrate proper donning of the anti-exposure coveralls and adjust for proper fit.	_____
2. Demonstrate proper use of the special construction features of the anti-exposure coveralls (i.e. zipper closures; ankle, thigh and wrist straps; pillow; waist belt and hood) and state how these increase hypothermia protection when utilized in the water.	_____
3. State when the anti-exposure coveralls are required to be worn.	_____
4. Demonstrate donning attached hood.	_____

Instructor _____ **Date** _____

Comments

TASK BCM-02-06-ANY: Don the Boat Crew Dry Suit

Reference a. *Rescue and Survival Systems Manual*, COMDTINST M10470.10 (series)

Conditions Task should be performed at any time, at facilities available to the unit.

NOTE This task is not required to be performed at units located in District 7, 8, 14, and Activities San Diego.

Standards In response to the instructor, the trainee shall, without error, don a boat crew dry suit.

Performance Criteria	Completed (Initials)
1. State the proper thermal protective layers to be worn under the boat crew dry suit.	_____
WARNING Cotton undergarments other than underwear are NOT authorized.	
2. Demonstrate proper donning of the boat crew dry suit and adjust for proper fit. Demonstrate proper donning of attached or neoprene hood.	_____
3. State the requirements for when a boat crew dry suit is to be worn.	_____
4. State the proper method for inspecting neck and wrist seals as well as general boat crew dry suit condition. Describe proper methods for sizing neck and wrist seals. State problems that would make a boat crew dry suit unserviceable.	_____
5. State requirements and proper methods for maintenance and stowage of the boat crew dry suit.	_____

Instructor _____ **Date** _____

Comments



TASK BCM-02-07-ANY: Identify Boat Crew Survival Vest Equipment

References

- a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
- b. *Rescue and Survival Systems Manual*, COMDTINST M10470.10 (series)

Conditions

Task should be performed at any time, at facilities available to the unit.

Performance Criteria	Completed (Initials)
1. State from memory the proper location and contents of the boat crew survival vest.	_____
2. Identify each item from the vest and explain its use: <ul style="list-style-type: none"> a. Emergency signal mirror b. Signal whistle c. MK-124 marine smoke and illumination signal d. MK-79 signal kit e. Distress signal light f. Survival knife g. PLB "Personal Locator Beacon" 	_____
3. State when the boat crew survival vest is required to be worn.	_____

Instructor _____

Date _____

Comments

TASK BCM-02-08-ANY: Use the Emergency Signaling Mirror

References

- a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
- b. *Manufacturer Guidelines*
- c. *Rescue and Survival Systems Manual*, COMDTINST M10470.10 (series)

Conditions

Task shall be performed while floating in water deeper than the trainee's height, during daylight hours. Trainee should be wearing survival gear consistent with the weather and water temperature and a boat crew personal survival vest. Sunlight should be reflected onto a predetermined target (boat, location on a wall, etc.) Trainee must accomplish the task without prompting or use of a reference.

Standards

The light rays from the sun must be reflected onto the predetermined object within one minute of trainee receiving a signal from the instructor.

Performance Criteria	Completed (Initials)
1. Locate and break out signal mirror.	_____
2. Reflect sunlight from the mirror onto a nearby surface (hand, wall, boat).	_____
3. Bring mirror to eye level, and sight target through sighting hole.	_____
4. Hold mirror close to eye and manipulate so that light spot is on designated target.	_____
5. Sweep horizon to demonstrate attention-attracting technique.	_____



Instructor _____ **Date** _____

Comments _____

TASK BCM-02-09-ANY: Demonstrate the Use of the MK-124 Smoke and Illumination Signal

- References**
- a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
 - b. *Rescue and Survival Systems Manual*, COMDTINST M10470.10 (series)

Conditions

Task is accomplished in two parts:
 Ashore - Trainee identifies the signal ends and describes sequence required to ignite the signal. Identification of signal ends should be done in a well-darkened room.
 Afloat - In water deeper than the trainee’s height, activate the signal. Trainee should wear survival gear consistent with the weather and water temperature and a boat crew personal survival vest. Either end of the signal can be activated.
 Trainee must accomplish the task without prompting or use of a reference.

Standards

Trainee must immediately identify the signal. Trainee must be able to distinguish between the day and night ends of the signal by touch alone. Trainee must be able to activate the signal while floating within one minute of receiving a signal from the instructor.

NOTE

The requirement for the trainee to activate the signal may be waived if adequate quantities of the signal are not available for training. If this requirement is waived, the trainee shall list in writing the procedures and safety precautions to be followed when igniting the MK-124.

Performance Criteria	Completed (Initials)
1. Complete the following tasks ashore: a. Identify and break out signal. b. Identify day and night ends of the signal by touch alone.	_____
2. Complete the following tasks in the water: a. Break out signal while floating. b. Remove cap on end of signal. c. Extend plastic lever out fully. d. Hold signal downwind, at arms length, at 45° angle from the horizon over the side of the raft or away from dry debris. e. Pull down on tab to ignite signal.	_____

Instructor _____ **Date** _____

Comments _____



TASK BCM-02-10-ANY: Demonstrate the Use of the MK-79 Illumination Signal Kit

References	a. <i>Boat Crew Seamanship Manual</i> , COMDTINST M16114.5 (series) b. <i>Rescue and Survival Systems Manual</i> , COMDTINST M10470.10 (series)
Conditions	Task must be accomplished while afloat in water deeper than the trainee’s height during daylight hours. Trainee should wear survival gear consistent with the weather and water temperature, and a boat crew personal survival vest. Trainee should not fire the cartridge until directed by the instructor. Trainee must accomplish the task without prompting or use of a reference.
Standards	Trainee must immediately identify the signal. Trainee must be able to load the cartridge into the launcher and fire, or simulate firing, the signal within two minutes of receiving a signal from the instructor. All steps must be done in the order listed.

NOTE


The requirement for the trainee to activate the signal may be waived if adequate quantities of the signal are not available for training. If this requirement is waived, the trainee shall list in writing the procedures and safety precautions to be followed when igniting the MK-79.

Performance Criteria	Completed (Initials)
1. Identify and break out MK-79 signal kit.	_____
2. Break out launcher and bandoleer from plastic envelope.	_____
3. Pull trigger screw of launcher into safety slot.	_____
4. Bend protective tab away from the signal.	_____
5. Load signal cartridge into launcher and rotate clockwise until signal is seated.	_____
6. Hold launcher over head with arm fully extended. Point launcher away from the body on a slight angle.	_____
7. On command of the instructor, fire signal by slipping the trigger screw out of the safety slot and into the firing slot.	_____

Instructor _____ **Date** _____


Comments



TASK BCM-02-11-ANY: **Operate the Distress Signal Light** 

References
 a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
 b. *Rescue and Survival Systems Manual*, COMDTINST M10470.10 (series)


Conditions
 Task must be accomplished while afloat in water deeper than the trainee’s height during daylight hours. Trainee should wear survival gear consistent with the weather and water temperature, and a boat crew personnel survival vest. Trainee must accomplish task without prompting or use of a reference.

Standards
 Trainee must immediately identify the signal. Trainee must be able to break out and activate the signal within one minute of entering the water or being given a signal by the instructor.

Performance Criteria	Completed (Initials)
1. Locate and remove the distress signal light from its case.	_____
2. Activate strobe light.	_____


Instructor _____ **Date** _____

Comments

TASK BCM-02-12-ANY: **Operate the Personal Locator Beacon** 

References
 a. *Personal Locator Beacon Operator’s Manual*
 b. *Rescue and Survival Systems Manual*, COMDTINST M10470.10 (series),

Conditions
 Task should be performed at any time, at facilities available to the unit. Trainee must accomplish task without prompting or use of a reference.

Standards
 In response to the instructor, the trainee shall, without error, simulate the activation of the Personal Locator Beacon.

NOTE 

For the purpose of qualification and training, PLB shall not be activated unless within prescribed PMS Standards.

Performance Criteria	Completed (Initials)
1. Locate and remove PLB.	_____
2. Simulate activation of unit.	_____

Instructor _____ **Date** _____

Comments



TASK BCM-02-13-ANY: Don the Boat Crew Survival Vest

Reference a. *Rescue and Survival Systems Manual*, COMDTINST M10470.10 (series)

Conditions Task should be performed at any time, at facilities available to the unit.

Standards In response to the instructor, the trainee shall, without error, don the boat crew survival vest.

Performance Criteria	Completed (Initials)
1. Demonstrate proper donning of the boat crew survival vest over the following PFDs and adjust for proper fit: <ul style="list-style-type: none"> a. Type III PFD b. Dry Suit and Type III c. Anti-exposure coverall 	_____
2. Access the following equipment: <ul style="list-style-type: none"> a. Distress signal light b. Whistle c. Signal mirror d. MK-124 day/night signal e. MK-79 signal kit f. Knife g. PLB (if carried) h. Tether (if carried) 	_____
3. State the requirements for when the boat crew survival vest is to be worn.	_____

Instructor _____ **Date** _____

Comments



TASK BCM-02-14-ANY:

Don the Inflatable PFD



Reference

a. *Rescue and Survival Systems Manual*, COMDTINST M10470.10 (series)

Conditions

Task should be performed at any time, at facilities available to the unit.

NOTE

This qualification task is only required at units using inflatable PFDs.

Standards



In response to the instructor, the trainee shall, without error, don the inflatable PFD and explain the policy associated with the attached survival equipment.

Performance Criteria	Completed (Initials)
1. Complete the Performance Qualification Standard for each inflatable PFD type in use at the unit.	_____
<p>NOTE</p> <p>Place the original PQS for the Inflatable PFD in the trainee's Training Record/E-Training system.</p>	
2. State when an inflatable PFD is required to be worn. State the policy associated with carrying required survival/signal equipment as part of the inflatable PFD outfit in lieu of wearing the boat crew survival vest.	_____
3. Access the following equipment: <ul style="list-style-type: none"> a. Distress signal light b. Whistle c. Signal mirror d. MK-124 day/night signal e. MK-79 signal kit f. Knife g. PLB (if carried) h. Tether (if carried) 	_____
4. State the requirements and proper methods for maintenance and stowage of the inflatable PFD.	_____

Instructor

Date

Comments

TASK BCM-02-15-TYPE Explain the Manual Deployment and Boarding Procedures for the Rescue and Survival



NOTE 

This qualification task is only required at units using a Rescue and Survival Raft.

References

- a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
- b. *Rescue and Survival Systems Manual*, COMDTINST M10470.10 (series)

Conditions

Task should be performed only for those boats equipped with a life raft. Task may be performed at any time. Trainee must accomplish the task without prompting or the use of a reference.

Standards



Trainee should be able to identify equipment and cite steps in the procedures without error. When practical, consideration should be given to deploying the raft for training (i.e., prior to yearly inspection).


Performance Criteria	Completed (Initials)	Boat Type
1. Identify and locate raft and container.	_____ _____ _____	_____ _____ _____
2. List and explain procedures for deploying and manning the raft.	_____ _____ _____	_____ _____ _____
3. Explain best location to deploy the raft dependent upon environmental conditions.	_____ _____ _____	_____ _____ _____
4. Remove raft from rack.	_____ _____ _____	_____ _____ _____
5. Place raft in water in best location for boarding.	_____ _____ _____	_____ _____ _____
6. Pull the 50 FT painter line from the raft container to inflate raft.	_____ _____ _____	_____ _____ _____
7. Board raft from alongside boat, if possible.	_____ _____ _____	_____ _____ _____

Instructor _____

Date _____

Comments



TASK BCM-02-16-TYPE **List Survival Procedures in Event of Boat Capsize** 

References a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
 b. *Specific Boat Type Operator's Handbook*, COMDTINST M16114 (series)

Conditions Task should be performed at any time, onboard the unit's boats. Trainee must accomplish task without prompting or use of a reference.

Standards Trainee should be able to list all steps in the procedure without error.



Performance Criteria	Completed (Initials)	Boat Type
1. State all egress routes in order of precedence.	_____ _____ _____	_____ _____ _____
2. Locate nearest exit to open water.	_____ _____ _____	_____ _____ _____
3. Inventory survival gear.	_____ _____ _____	_____ _____ _____
4. Select best swimmer to exit first carrying line.	_____ _____ _____	_____ _____ _____
5. First swimmer exits craft, if necessary, with PFD in hand.	_____ _____ _____	_____ _____ _____
6. First swimmer contacts crew still inside by tapping on the hull of the boat.	_____ _____ _____	_____ _____ _____
7. Rest of crew exits one at a time.	_____ _____ _____	_____ _____ _____
8. Crew activates PLB/EPIRB and stays with the boat until rescued or boat sinks.	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments



TASK BCM-02-17-ANY:

Open Water Survival Skills



References

- a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
- b. *Rescue and Survival Systems Manual*, COMDTINST M10470.10 (series)
- c. *Team Coordination Training*, COMDTINST 1541.1 (series)

Conditions

Task should be performed at any time, at facilities available to the unit.

Standards



In response to the instructor, the trainee shall explain risk-based decisions associated with open water survival skills.

Performance Criteria	Completed (Initials)
1. Explain the benefits associated with the different levels of hypothermia protective garments and how they relate to Tables 3-1 and 3-2 of the <i>Rescue and Survival Systems Manual</i> .	_____
2. Explain the factors that accelerate the onset of hypothermia.	_____
3. Describe the preventive measures that can be used to increase the chances for successful open water survival including methods of tethering.	_____
4. Explain the benefits for getting your body out of the water as much as possible in open water survival situations.	_____
5. Explain risk-based decisions associated with swimming in open water survival situations.	_____
6. Describe the method for: <ul style="list-style-type: none"> a. Climbing onto an overturned boat hull. b. Boarding a boat from the water. c. Boarding a life raft. 	_____

Instructor _____ **Date** _____

Comments



TASK BCM-02-18-ANY: Perform Water Survival Exercise



References

- a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
- b. *Rescue and Survival Systems Manual*, COMDTINST M10470.10 (series)

Conditions

This exercise shall be completed by entering water from a height of approximately 3 FT above the surface or from the level of the boat’s main deck. Trainee shall wear flotation, hypothermia protective garments and survival equipment consistent with the coldest weather and water temperature experienced at the unit. If this task is completed near a boat or unit docks, ensure the area is free of any dangers (i.e., debris, snags, shoals, excess currents, or biological hazards). An immediate means of response must be available to assist any member that develops trouble during the completion of this task. Trainee shall accomplish task without prompting or use of a reference.

Standards



In response to the instructor, the trainee shall, without error, complete all steps of the water survival exercise.

Performance Criteria	Completed (Initials)
1. Don flotation, hypothermia protective garments and survival equipment, and adjust for proper fit. Personnel wearing dry suits shall don the required attached hood or neoprene after entering the water.	_____
2. Enter the water from a height of approximately 3 FT or from the level of the boat’s main deck. <ul style="list-style-type: none"> a. Check surrounding water for debris and depth. b. Look straight ahead when entering water, but maintain awareness of surroundings (i.e., boat movement, wave action, currents). c. Maintain vertical position (body erect) upon entry into water. d. Minimize initial immersion by spreading arms and applying a scissors kick upon entry. 	_____
3. Adjust flotation, hypothermia protective garments and survival equipment to reduce water intrusion and heat loss and to improve mobility and buoyancy.	_____
4. Swim 100 yards using an energy-conserving stroke or movement.	_____
NOTE The preferred swim stroke is the resting backstroke.	
5. Demonstrate the Heat Escape Lessening Position (HELP) for a single person in the water.	_____
6. Tether to other survivors and demonstrate the HELP for multiple survivors.	_____
7. Access and demonstrate the use of the following equipment: <ul style="list-style-type: none"> a. Distress signal light b. Whistle c. Signal mirror d. MK-124 day/night signal e. MK-79 signal kit f. Knife g. PLB h. Tether (if carried) 	_____

Instructor _____

Date _____

Comments

Section C. Marlinespike Seamanship, Boat Nomenclature, Nautical Terminology, and Basic Stability

Introduction

The following are objectives of This Section:

Identify, explain the use of, and be able to consistently tie the basic knots and hitches used aboard emergency and law enforcement maritime platforms.

Demonstrate the ability to secure lines of various sizes to several types of deck and dock fittings.

Identify the different parts of a boat’s ground tackle and be able to assist in anchoring a boat.


In this section

This section contains the following tasks:



Task Number	Task	See Page
BCM-03-01-ANY	State Common Boat Nomenclature and Terminology	2-25
BCM-03-02-TYPE	Locate and Identify the Purpose of the Equipment Aboard the Boat	2-25
BCM-03-03-TYPE	Boat Characteristics - Boat Construction	2-26
BCM-03-04-TYPE	Boat Characteristics - Watertight Integrity	2-26
BCM-03-05-TYPE	Stability	2-27
BCM-03-06-ANY	Identify the Different Parts of a Line and the Hitches Used in Line Handling	2-28
BCM-03-07-ANY	Tie Various Knots, Hitches and Bends	2-29
BCM-03-08-ANY	Secure Lines to Cleats, Bitts and Posts	2-29



TASK BCM-03-01-ANY: **State Common Boat Nomenclature and Terminology** 

Reference
 a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions
 Task should be performed onboard one of the unit’s boats. Trainee must accomplish the task without prompting or use of a reference.


Standards
 In response to the instructor, the trainee must, without error, identify different locations and positions aboard the boat.



Performance Criteria	Completed (Initials)
1. Identify bow of the boat.	_____
2. On command, move forward on the boat.	_____
3. Identify starboard side of boat.	_____
4. Identify port side of boat.	_____
5. Identify athwartships.	_____
6. Identify outboard and inboard areas.	_____
7. Identify stern of the boat.	_____
8. Identify port quarter.	_____
9. Identify starboard bow.	_____
10. Identify windward and leeward side of the boat.	_____

Instructor _____ **Date** _____

Comments

TASK BCM-03-02-TYPE: **Locate and Identify the Purpose of the Equipment Aboard the Boat** 

Reference
 a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions
 Task should be performed using a simple line diagram of a boat and the boat checklist or boat outfit list. Trainee should list the location of each piece of equipment on the diagram. Trainee must accomplish the task without prompting or use of a reference.

Standards
 Trainee must label and explain the use of installed equipment and fittings.



Performance Criteria	Completed (Initials)	Boat Type
1. Label each piece of equipment or fitting.	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments _____

TASK BCM-03-03-TYPE: Boat Characteristics - Boat Construction



Reference

a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions

Task should be performed at any time, at facilities available to the unit.

Standards

Trainee must demonstrate knowledge of each task.



Performance Criteria	Completed (Initials)	Boat Type
1. Name and define the three basic types of hulls.	_____ _____ _____	_____ _____ _____
2. Define keel and name the two keel types.	_____ _____ _____	_____ _____ _____
3. Name and define the most common boat measurements (beam, height, fixed height, length, freeboard, and draft).	_____ _____ _____	_____ _____ _____
4. Name the parts of doors and hatches that are used to make them watertight.	_____ _____ _____	_____ _____ _____
5. Name and define the measurements used to define boat displacement.	_____ _____ _____	_____ _____ _____

Instructor _____

Date _____

Comments _____

TASK BCM-03-04-TYPE: Boat Characteristics - Watertight Integrity



Reference

a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions

Task should be performed at any time, onboard the unit's boats. Trainee must accomplish task without prompting or use of a reference.

Standards

Trainee must either demonstrate knowledge of or perform each task.






Performance Criteria	Completed (Initials)	Boat Type
1. State the watertight compartments of each boat type.	_____ _____ _____	_____ _____ _____
2. Describe the factors that should be determined before you open watertight doors, hatches, and scuttle covers on a damaged boat.	_____ _____ _____	_____ _____ _____
3. Open a watertight door and hatch.	_____ _____ _____	_____ _____ _____
4. Close a watertight door and hatch.	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments _____

TASK BCM-03-05-TYPE: **Stability** 

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time, at facilities available to the unit.

Standards Trainee must either demonstrate knowledge of or perform each task.




Performance Criteria	Completed (Initials)	Boat Type
1. State the two primary forces that affect a boat's stability.	_____ _____ _____	_____ _____ _____
2. Define center of gravity and describe how it changes as weight is added to or subtracted from the boat.	_____ _____ _____	_____ _____ _____
3. Define buoyancy.	_____ _____ _____	_____ _____ _____
4. Define equilibrium and describe how it is changed during rolling, heeling and listing.	_____ _____ _____	_____ _____ _____



Performance Criteria	Completed (Initials)	Boat Type
5. State the two types of stability.	_____ _____ _____	_____ _____ _____
6. Describe the two types of forces that affect stability.	_____ _____ _____	_____ _____ _____
7. List the general boat design features that influence stability.	_____ _____ _____	_____ _____ _____


Instructor _____ **Date** _____
Comments _____

TASK BCM-03-06-ANY: **Identify the Different Parts of a Line and the Hitches Used in Line Handling** 

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time, ashore or afloat, without prompting or use of a reference.

Standards In response to the instructor, the trainee must, without error, identify the different parts and configuration of a line.



Performance Criteria	Completed (Initials)
1. Define lay of line for: a. Double braid b. Plain laid	_____
2. Define line material: a. Polypropylene b. Nylon, including double braid c. Natural fiber	_____
3. Identify bitter end of line.	_____
4. Identify standing part of line.	_____
5. Make bight in the line.	_____
6. Make overhand loop in the line.	_____
7. Make underhand loop in the line.	_____
8. Make turn around an object.	_____
9. Make round turn around an object.	_____



Instructor _____ **Date** _____

Comments

TASK BCM-03-07-ANY: Tie Various Knots, Hitches and Bends 

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time, onboard one of the unit’s boats, cutter, or at the unit’s pier, without prompting or use of a reference.

Standards In response to the instructor, the trainee must, without error, tie the following hitches, knots and bends quickly and confidently.



Performance Criteria	Completed (Initials)
1. Tie a square (reef) knot.	_____
2. Tie bowline in the end of a mooring line.	_____
3. Put a temporary eye in towline, using a bowline.	_____
4. Untie knot by “breaking” the bowline.	_____
5. Secure line to a rail using a clove hitch.	_____
6. Secure clove hitch by using two half hitches.	_____
7. Mount fender using a slip clove hitch.	_____
8. Attach heaving line to a towline using a sheet bend, snap hook, bowline and/or clove hitch with two half hitches.	_____
9. Add length of mooring line to a towline using a double becket bend.	_____
10. Secure log, board or other rough surfaced object by using a timber hitch and two half hitches.	_____
11. Tie bowline around an object.	_____

Instructor _____ **Date** _____

Comments

TASK BCM-03-08-ANY: Secure Lines to Cleats, Bitts and Posts 

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time, onboard one of the unit’s boats, cutter, or at the unit’s pier, without prompting or use of a reference.

Standards In response to the instructor, the trainee must demonstrate the correct method for securing a line to cleats, bitts and posts.





Performance Criteria	Completed (Initials)
1. Locate all standard cleats on boat.	_____
2. Place complete round turn around the base of the cleat.	_____
3. Lead line over the top of the cleat and around the horns to form a figure eight.	_____
4. Secure additional figure eights until the cleat is secured with at least three figure eights.	_____
5. Feed eye of the line through the opening in the base of the cleat.	_____
6. Loop line back over horns and pull taut.	_____
7. Place eye of first mooring line over the cleat.	_____
8. Run eye of second mooring line through the eye of the first.	_____
9. Place eye of second mooring line over the cleat.	_____
10. Identify and locate all bits on boat.	_____
11. Make a complete turn around the near horn.	_____
12. Make three or more figure eights around both horns.	_____
13. Identify and locate Samson post on boat.	_____
14. Make complete round turn around the base of the Samson post.	_____
15. Make several figure eights around horns of the post.	_____

Instructor _____ **Date** _____

Comments



Section D. Boat Handling

Introduction

The following are objectives of this section:

Define the common terms used for identification aboard an emergency response or law enforcement vessel.

Identify and explain the purpose or use of the different fittings and equipment located on a boat.

Demonstrate the ability to participate in the common watches performed aboard emergency or law enforcement boats.

In this section

This section contains the following tasks:



Task Number	Task	See Page
BCM-04-01-ANY	Rig Fenders to Side of the Boat	2-32
BCM-04-02-TYPE	Make Fast a Boat to a Pier (Bow On Mooring, No Current/Wind)	2-32
BCM-04-03-TYPE	Assist in Anchoring the Boat	2-33
BCM-04-04-TYPE	Assist in Weighing the Boat's Anchor	2-34
BCM-04-05-ANY	Identify the Common Navigation Lights Displayed by Ships and Boats	2-35
BCM-04-06-ANY	Identify the Common Sound Signals Used by Ships and Boats	2-36
BCM-04-07-ANY	Identify and Describe Accepted Maritime Distress Signals	2-36
BCM-04-08-ANY	Stand a Lookout Watch	2-37
BCM-04-09-ANY	Act as a Helmsman and Steer a Compass Course	2-38
BCM-04-10-TYPE	Get the Boat Away from a Pier/Cutter	2-38
BCM-04-11-TYPE	Moor the Boat to a Pier/Cutter	2-39
BCM-04-12-TYPE	Boat Handling	2-40

TASK BCM-04-01-ANY: **Rig Fenders to Side of the Boat** 

Reference
a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)


Conditions
Task should be performed at any time onboard a unit boat, without prompting or the use of a reference.

Standards
In response to the instructor, the trainee must correctly rig fenders to the side of the boat. Fenders should be the proper height to avoid damage.

Performance Criteria	Completed (Initials)
1. Tie fenders in place using a slip clove hitch.	_____
2. Position all fenders appropriately for width and height of pilings and piers.	_____
3. Place fenders at contact points between boat and pier, dock or another boat.	_____

Instructor _____ **Date** _____

Comments

TASK BCM-04-02-TYPE: **Make Fast a Boat to a Pier (Bow On Mooring, No Current/Wind)** 

References
a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
b. Chapman Piloting

Conditions
Task should be performed at any time, onboard the unit's boats. Trainee must accomplish task without prompting or use of a reference.

Standards
In response to the instructor, the trainee must demonstrate, in proper sequence, the correct procedures for securing a boat to a pier using the boat's mooring lines.

Performance Criteria	Completed (Initials)	Boat Type
1. Place forward spring line on pier cleat tended and secure to the boat.	_____ _____ _____	_____ _____ _____
2. Place stern line on pier cleat and secure to the boat.	_____ _____ _____	_____ _____ _____
3. Place bow line on pier cleat and secure to the boat.	_____ _____ _____	_____ _____ _____



Performance Criteria	Completed (Initials)	Boat Type
4. Place aft spring line on pier cleat and secure to the boat.	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments _____

TASK BCM-04-03-TYPE:

Assist in Anchoring the Boat 

Reference

a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions

Task should be performed at any time, onboard the unit's boats. Trainee must accomplish task without prompting or use of a reference.

Standards




In response to the instructor, trainee must demonstrate, in proper sequence, the correct procedure for anchoring the boat.

Performance Criteria	Completed (Initials)	Boat Type
1. State the main parts of the anchor.	_____ _____ _____	_____ _____ _____
2. State the equipment associated with anchoring.	_____ _____ _____	_____ _____ _____
3. Establish communications with Coxswain during the evolution.	_____ _____ _____	_____ _____ _____
4. Ascertain amount of scope needed based on depth of water and type of bottom.	_____ _____ _____	_____ _____ _____
5. Break out and attach anchor line to anchor.	_____ _____ _____	_____ _____ _____
6. Deploy anchor by safest means.	_____ _____ _____	_____ _____ _____
7. Inform Coxswain of direction line tending at all times as anchor line pays out (veers).	_____ _____ _____	_____ _____ _____

Performance Criteria	Completed (Initials)	Boat Type
8. Secure anchor line to bitt at Coxswain's command.	_____ _____ _____	_____ _____ _____


Instructor _____ **Date** _____

Comments _____

TASK BCM-04-04-TYPE: **Assist in Weighing the Boat's Anchor** 

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time, onboard the unit's boats. Trainee must accomplish task without prompting or use of a reference.

Standards  The trainee must demonstrate, in proper sequence, the procedures for weighing the boat's anchor.

Performance Criteria	Completed (Initials)	Boat Type
1. Establish communications with Coxswain.	_____ _____ _____	_____ _____ _____
2. Remove slack from anchor line as boat moves ahead.	_____ _____ _____	_____ _____ _____
3. Stow anchor line below deck, away from work area, immediately as it is brought aboard.	_____ _____ _____	_____ _____ _____
4. Signal to Coxswain when the anchor line is at short stay (up and down).	_____ _____ _____	_____ _____ _____
5. Break anchor free from bottom (if anchor does not break free, trainee makes fast anchor line to bitt while Coxswain moves the boat ahead to break it free).	_____ _____ _____	_____ _____ _____
6. Determine if anchor is clear and clean.	_____ _____ _____	_____ _____ _____



Performance Criteria	Completed (Initials)	Boat Type
7. Haul anchor aboard the boat.	_____ _____ _____	_____ _____ _____
8. Make up and stow all equipment.	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____
Comments _____

TASK BCM-04-05-ANY:

Identify the Common Navigation Lights Displayed by Ships and Boats



References

- a. Chapman Piloting
- b. *Navigation Rules International-Inland*, COMDTINST M16672.2 (series)

Conditions

Task should be performed at night, onboard any unit boat or cutter. Trainee must identify the types of lights when presented with pictures or actual lights by the instructor. The navigation rules used should be those used in the unit's area of operations. Trainee must accomplish the task without prompting or use of a reference.


Standards



In response to the instructor, the trainee must, without error, verbally identify the lights listed below.


Performance Criteria	Completed (Initials)
1. Identify port side light.	_____
2. Identify starboard side light.	_____
3. Identify stern light.	_____
4. Identify anchor light.	_____
5. Identify towing lights.	_____
6. Identify sailboat masthead light.	_____
7. Identify bow combination light for boats.	_____

Instructor _____ **Date** _____
Comments _____

TASK BCM-04-06-ANY: **Identify the Common Sound Signals Used by Ships and Boats** 

References
a. Chapman Piloting
b. *Navigation Rules International-Inland*, COMDTINST M16672.2 (series)


Conditions
Task should be performed at any time, onboard any unit boat or cutter. Trainee must identify the sound signals when presented with examples of the signals. The navigation rules used should be those used in the unit’s area of operations. Trainee must accomplish the task without prompting or use of a reference.

Standards
 In response to the instructor, the trainee must, without error, verbally identify the signals listed below.

Performance Criteria	Completed (Initials)
1. Identify short blast.	_____
2. Identify prolonged blast.	_____
3. Identify danger signal.	_____
4. Identify signal for intention, coming to port (inland).	_____
5. Identify whistle signal for sailing vessels during periods of reduced visibility.	_____


Instructor _____ **Date** _____

Comments

TASK BCM-04-07-ANY: **Identify and Describe Accepted Maritime Distress Signals** 

References
a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
b. *Navigation Rules International-Inland*, COMDTINST M16672.2 (series)

Conditions
Task should be performed at any time, at facilities available to the unit. Trainee must accomplish the task without prompting or use of a reference.


Standards
 The trainee must, without error, verbally identify the distress signals listed below when given an illustration of each distress signal by the instructor.

Performance Criteria	Completed (Initials)
1. Red star shells.	_____
2. Continuous sounding fog horn.	_____
3. Orange smoke marker.	_____
4. Dye marker (any color).	_____
5. Red parachute flare.	_____
6. Flames on a boat.	_____




Performance Criteria	Completed (Initials)
7. November code flag flown over the “Charlie” code flag.	_____
8. Emergency Position Indicating Radio Beacon (EPIRB).	_____
9. Orange board with a black square over a black circle.	_____
10. “MAYDAY” radio broadcast.	_____
11. Person waving arms.	_____
12. A signal consisting of a square flag having above or below it a ball or anything resembling a ball.	_____
13. Radio telephone alarm.	_____
14. Radio telegraph alarm.	_____
15. SOS – Morse code signal.	_____
16. Gun fired at intervals of one minute.	_____
17. High intensity white light flashing at intervals of 50 to 70 times per minute (inland waters only).	_____

Instructor _____ **Date** _____
Comments _____

TASK BCM-04-08-ANY: **Stand a Lookout Watch** 

References
 a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
 b. *Navigation Rules International-Inland*, COMDTINST M16672.2 (series), *Rule 5*

Conditions
 Task should be performed at any time, onboard any of the unit’s boats or cutter. Trainee must report the range and relative bearing of objects identified by the instructor. Trainee must accomplish the task without prompting or use of a reference.

Standards
 In response to the instructor, the trainee must, without error, identify objects and state relative bearing and range.

Performance Criteria	Completed (Initials)
1. List the different types of buoys and their characteristics in the local area and the purpose of each.	_____
2. Identify three different local fixed aids.	_____
3. Identify and report the range and relative bearing of four different type vessels, common to the local area.	_____
4. Identify and report range and relative bearing to deadhead and/or other floating hazard to navigation.	_____
5. Identify whistle, bell, gong, and/or other local audio aids to navigation.	_____
6. Recognize and report different boat crossing situations.	_____
7. Recognize and report meeting situations.	_____
8. Recognize and report overtaking situations.	_____

Instructor _____ **Date** _____



Comments _____

TASK BCM-04-09-ANY:

Act as a Helmsman and Steer a Compass Course



Reference

a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions

Task should be performed at any time, onboard the unit's boats. Trainee must accomplish task without prompting or use of a reference.

Standards



In response to the Coxswain, the trainee must respond, without error, to various helm commands. All courses must be maintained to within 5° of ordered course.

Performance Criteria	Completed (Initials)
1. Steer on the course ordered by the Coxswain.	_____
2. Maintain course to within 5° of ordered course over a 10-minute staged run.	_____
3. Alter course (at least 35°) to new course on Coxswain's command.	_____
4. Steady boat up on new course and hold to within 5° of ordered course.	_____
5. Monitor engine gauges.	_____
6. Keep careful watch of the surrounding area.	_____

Instructor

Date

Comments _____

TASK BCM-04-10-TYPE:

Get the Boat Away from a Pier/Cutter



References

a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
b. Chapman Piloting

Conditions

Task should be performed at any time, onboard the unit's boats in light to moderate winds. The boat may be made fast to either side of the pier or mooring object. All mooring lines must be attached before task is begun. Trainee must accomplish the task without prompting or use of a reference.

Standards



Trainee must perform the task in accordance with the procedures in the listed steps. Any endangering of personnel or boat will cause the task to be secured until further training can be accomplished.

Performance Criteria	Completed (Initials)	Boat Type
1. Brief crew on procedure to be used and their duties.	_____ _____ _____	_____ _____ _____



Performance Criteria	Completed (Initials)	Boat Type
2. Remove mooring lines from pier as directed.	_____ _____ _____	_____ _____ _____
3. Clear stern of the boat from the pier.	_____ _____ _____	_____ _____ _____
4. Clear boat of pier.	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments

TASK BCM-04-11-TYPE: Moor the Boat to a Pier/Cutter



References

- a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
- b. Chapman Piloting

Conditions

Task should be performed at any time, onboard the unit's boats in light to moderate winds. Trainee must accomplish the task without prompting or use of a reference.

Standards



Trainee must perform the task in accordance with procedures in the listed steps. Any endangering of personnel or boat will cause the task to be secured until further training can be accomplished.

Performance Criteria	Completed (Initials)	Boat Type
1. Brief crew on procedure to be used and their duties.	_____ _____ _____	_____ _____ _____
2. Demonstrate checking engine control (forward and reverse on each engine.)	_____ _____ _____	_____ _____ _____
3. Approach slowly.	_____ _____ _____	_____ _____ _____
4. Apply appropriate power and rudder, use spring line if desired.	_____ _____ _____	_____ _____ _____
5. Bring boat alongside.	_____ _____ _____	_____ _____ _____



Performance Criteria	Completed (Initials)	Boat Type
6. Secure lines.	_____ _____ _____	_____ _____ _____


Instructor _____ Date _____

Comments _____

TASK BCM-04-12-TYPE: **Boat Handling** 

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time, onboard the unit's boats in light to moderate winds. Trainee must accomplish the task without prompting or use of a reference.

Standards  Trainee must perform each task to the minimum standards included in each performance step. Any endangering of personnel or boat will cause the task to be secured until further training can be accomplished.

Performance Criteria	Completed (Initials)	Boat Type
1. Determine the rudder limits.	_____ _____ _____	_____ _____ _____
2. Check engine control action.	_____ _____ _____	_____ _____ _____
3. Move boat forward in a straight line.	_____ _____ _____	_____ _____ _____
4. Maintain safe speed for trainee's ability and weather conditions.	_____ _____ _____	_____ _____ _____
5. Adjust speed to ensure wake causes no damage or injuries.	_____ _____ _____	_____ _____ _____
6. Turn the boat with the helm.	_____ _____ _____	_____ _____ _____



Performance Criteria	Completed (Initials)	Boat Type
7. Stop the boat in a safe manner.	_____ _____ _____	_____ _____ _____
8. Hold a course while backing the boat.	_____ _____ _____	_____ _____ _____
9. Rotate boat about the pivot point.	_____ _____ _____	_____ _____ _____
10. Turn boat with a reduced tactical diameter.	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments

Section E. Communications

Introduction

The following are objectives of this section:

Demonstrate the ability to operate a VHF-FM radiotelephone and the SSB-HF transceiver.

Demonstrate the ability to use the radiotelephone to give a position or operations report.

In this section

This section contains the following tasks:



Task Number	Task	See Page
BCM-05-01-ANY	Operate a VHF-FM Radiotelephone	2-42
BCM-05-02-ANY	Operate an Agency Radio/Transceiver	2-43
BCM-05-03-ANY	Use the VHF-FM Radiotelephone to Give an Operations and Position Report	2-44

TASK BCM-05-01-ANY:

Operate a VHF-FM Radiotelephone



References

- a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
- b. *Radiotelephone Handbook*, COMDTINST 2300.7 (series)


Conditions

Task should be performed at any time, onboard one of the agency's boats. Trainee must accomplish task without prompting or use of a reference.

Standards



In response to the instructor, the trainee must, without error, identify the different operating parts of the radio and operate the radio.

Performance Criteria	Completed (Initials)
1. Identify VHF-FM transceiver and speakers.	_____
2. Identify breaker that energizes radio.	_____
3. Identify power switch and turn radio on.	_____
4. Identify channel selection switch or buttons for emergency and working frequencies.	_____
5. Identify volume controls and adjust volume.	_____
6. Identify squelch control and adjust to the point where static disappears.	_____
7. Identify microphone and transmitting button and obtain a radio check on appropriate working frequency.	_____
NOTE  No radio checks are permitted on the International VHF distress and calling frequency, Channel 16.	

Instructor _____

Date _____

Comments _____



TASK BCM-05-02-ANY: Operate an Agency Radio/Transceiver



References

- a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
- b. *Radiotelephone Handbook*, COMDTINST M2300.7 (series)
- c. *Radio/Transceiver – Operator’s Manual*

Conditions

Task should be performed at any time, onboard one of the unit’s boats or a cutter with SSB-HF radio onboard. Trainee must accomplish task without prompting or use of a reference.

Standards

In response to the instructor, the trainee must, without error, identify the different operating parts of the radio and operate the radio.



Performance Criteria	Completed (Initials)
1. Identify transceiver and speakers.	_____
2. Identify power switch and turn radio on.	_____
3. Identify channel selection switch or buttons and select frequency.	_____
4. Identify and adjust volume control.	_____
5. Identify and adjust squelch control to just beyond the point where the static disappears.	_____
6. Identify microphone and operating button and demonstrate radio check on appropriate working frequency.	_____
NOTE	No radio checks are permitted on the International Medium Frequency (MF) distress and calling frequency 2182KHZ.

Instructor _____

Date _____

Comments



TASK BCM-05-03-ANY:

Use the VHF-FM Radiotelephone to Give an Operations and Position Report



References

- a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
- b. *Radiotelephone Handbook*, COMDTINST M2300.7 (series)

Conditions

Task should be performed at any time, onboard one of the unit’s boats or a cutter. Message to be sent should be composed by the trainee and the instructor prior to the beginning of the task. Trainee must accomplish task without prompting or use of a reference.

Standards



In response to the instructor, the trainee must, without error, send a short operations and position report. Task must be accomplished using proper radio telephone procedures, including prowords and phonetic alphabet, in accordance with the above reference.

Performance Criteria	Completed (Initials)
1. Turn on, tune, and set radio to unit’s working frequency.	_____
2. Hail Station using unit’s working frequency.	_____
3. Ensure that Channel 16 (emergency frequency) is being monitored at the same time.	_____
4. Send status of operations and position.	_____
5. Sign off using proper prowords at conclusion of the message.	_____

Instructor

Date

Comments

Section F. Navigation

Introduction

The following are objectives of this section:

- Demonstrate** the use of a nautical chart.
- Demonstrate** the ability to identify navigation and general landmark symbols on a nautical chart.
- Demonstrate** the ability to plan a voyage by laying down a track line across safe water and through marked channels.
- Demonstrate** the ability to take a fix and plot a position on a chart.
- Demonstrate** ability to calculate actual speed of boat, determine amount of water beneath keel, and recommend adjustments to boat’s course and speed to match voyage plan.

In this section

This section contain the following tasks:



Task Number	Task	See Page
BCM-06-01-ANY	Identify the Symbols, Abbreviations and Basic Parts of a Nautical Chart	2-46
BCM-06-02-ANY	Identify Common Aids to Navigation Used for Inland and Coastal Piloting	2-47
BCM-06-03-ANY	Identify Local Landmarks on a Nautical Chart	2-47
BCM-06-04-ANY	Plot a Position Using Latitude and Longitude	2-48
BCM-06-05-ANY	Plot a Magnetic Course on a Nautical Chart	2-48
BCM-06-06-ANY	Measure Distance on a Nautical Chart	2-48
BCM-06-07-ANY	Compute Time, Speed and Distance	2-49
BCM-06-08-ANY	Determine the Depth of Water Using a Fathometer, Depth Sounder	2-50
BCM-06-09-TYPE	Use Radar to Identify Objects	2-50
BCM-06-10-TYPE	Determine the Range and Bearing to Objects Using Radar	2-52
BCM-06-11-TYPE	Use Radar to Obtain and Interpret Relative Bearings and Ranges to a Moving Target to Determine if Risk of Collision Exists	2-52
BCM-06-12-TYPE	Operate the VHF-FM Direction Finder and Steer on a Signal	2-53
BCM-06-13-TYPE	Obtain a Fix Using GPS/DGPS	2-54
BCM-06-14-TYPE	Plot a Position Using LORAN-C TDsLORAN	2-56
BCM-06-15-TYPE	Operate the Electronic Charting System	2-57



TASK BCM-06-01-ANY:

Identify the Symbols, Abbreviations and Basic Parts of a Nautical Chart



Reference

a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions

Task should be performed ashore or afloat, at any time, using a chart of the local area. Trainee must accomplish task without prompting or use of a reference.

Standards



In response to the instructor, the trainee must, without error, identify the different parts of a nautical chart listed in the steps below.


Performance Criteria	Completed (Initials)
1. Identify the longitude scale.	_____
2. Identify the latitude scale.	_____
3. Identify horizontal and vertical clearances of overhead bridges and cables.	_____
4. Identify 1 NM using the latitude scale.	_____
5. Identify sounding numbers (feet/fathoms).	_____
6. Identify depth curves (contours).	_____
7. Identify the general information block.	_____
8. Identify the scale of a chart.	_____
9. Identify the latitude and longitude in minutes or seconds.	_____
10. Identify different colors and stated meaning of each.	_____
11. Identify the miles and yards scale.	_____
12. Identify aids to navigation.	_____
13. Identify the symbol for prominent local landmarks.	_____
14. Identify the compass rose and indicate the purpose of each of its prominent parts.	_____
15. Identify the symbol for a wreck, rock, or other submerged object.	_____
16. Identify latest changes to the chart determined by Notice to Mariners and Local Notice to Mariners.	_____

Instructor

Date

Comments



TASK BCM-06-02-ANY: Identify Common Aids to Navigation Used for Inland and Coastal Piloting 

References
 a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
 b. *Nautical Chart Symbols, Abbreviations, and Terms, Chart No. 1*
 c. *The American Practical Navigator*

Conditions
 Task should be performed while underway, using a nautical chart of the unit’s local operating area. Trainee must accomplish task without prompting or use of a reference.

Standards
 In response to the instructor, the trainee must, without error, identify the stated aids to navigation and their corresponding chart symbols.



Performance Criteria	Completed (Initials)
1. Identify a nun buoy and a can buoy.	_____
2. Identify a preferred channel buoy and state its purpose.	_____
3. Identify a day beacon.	_____
4. Identify an intracoastal waterways (ICW) buoy and state its markings (if applicable).	_____
5. Identify ranges and state their purpose.	_____
6. While underway, identify by type, number and characteristic the primary aids used for entering and exiting the unit’s berths.	_____

Instructor _____ **Date** _____

Comments

TASK BCM-06-03-ANY: Identify Local Landmarks on a Nautical Chart 

References
 a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
 b. *Nautical Chart Symbols, Abbreviations, and Terms, Chart No. 1*

Conditions
 Task should be performed while underway, using a nautical chart of the unit’s local operating area. Trainee must accomplish task without prompting or use of a reference.

Standards
 In response to the instructor pointing out aids to navigation and prominent landmarks, the trainee must, without error, correctly identify on the chart those objects.




Performance Criteria	Completed (Initials)
1. Identify all major piers and docks in the area.	_____
2. Identify any prominent dangerous submerged or semi-submerged rocks, shoals and structures.	_____
3. Identify all prominent submerged or partially submerged wrecks in the area.	_____
4. Identify all prominent antennas and towers used as navigational landmarks in the area.	_____
5. Identify all prominent buildings and structures used as navigational landmarks in the area.	_____
6. Identify all prominent landmarks in the area.	_____
7. Identify all bridges and their types in the area.	_____



Instructor _____ **Date** _____

Comments _____

TASK BCM-06-04-ANY: **Plot a Position Using Latitude and Longitude** 

References
a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
b. *The American Practical Navigator*

Conditions
Trainee shall be given a nautical chart and five sets of coordinates expressed in longitude and latitude. Trainee must plot the five coordinates without prompting or use of a reference.


Standards
The trainee must, without error, plot the latitude and longitude coordinates within five minutes. Positions must be within 100 yards.



Performance Criteria	Completed (Initials)
1. Plot five different positions on the chart within five minutes.	_____

Instructor _____ **Date** _____

Comments _____

TASK BCM-06-05-ANY: **Plot a Magnetic Course on a Nautical Chart** 

References
a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
b. *The American Practical Navigator*

Conditions
Trainee shall be given a nautical chart (scale 1:80,000 or less), the five positions plotted in TASK BCM-06-04-ANY, and five magnetic bearings (one bearing for each position). Trainee must accomplish task without prompting or use of a reference.

Standards
The trainee must, without error, plot the courses indicated within five minutes. Courses must be accurate to within 3°.



Performance Criteria	Completed (Initials)
1. Plot five different courses on the chart.	_____

Instructor _____ **Date** _____

Comments _____

TASK BCM-06-06-ANY: **Measure Distance on a Nautical Chart** 



References	a. <i>Boat Crew Seamanship Manual</i> , COMDTINST M16114.5 (series) b. <i>The American Practical Navigator</i>
Conditions	Trainee shall be given a nautical chart (scale 1:80,000 or less) and the set of five positions plotted in task BCM-06-04-ANY on the chart (designated A through E). All distances must be measured using nautical miles or yards as indicated by the task steps. Trainee must accomplish task without prompting or use of a reference.
Standards	The trainee must, without error, measure the distances indicated in the task's steps within three minutes. Distance must be accurate to within 200 yards.



Performance Criteria	Completed (Initials)
1. The distance from position A to B is ____ NMS.	_____
2. The distance from position B to C is ____ yards.	_____
3. The distance from position C to D is ____ yards.	_____
4. The distance from position D to E is ____ NMS.	_____
5. The distance from position E to A is ____ NMS.	_____

Instructor _____ **Date** _____

Comments _____

TASK BCM-06-07-ANY: Compute Time, Speed and Distance

References	a. <i>Boat Crew Seamanship Manual</i> , COMDTINST M16114.5 (series) b. <i>The American Practical Navigator</i>
Conditions	Trainee shall be given a nautical chart, nautical slide rule, and the positions and distance calculated in TASK BCM-06-06-ANY. All answers should be given to the nearest tenth of an hour, knot, or nautical mile as indicated in the step. Trainee must accomplish task without prompting or use of a reference.
Standards	The trainee must, without error, calculate the answer indicated for each step within five minutes.

NOTE

The Nautical Slide Rule may not be used for steps 2 and 5. In step 2 the trainee should also use speeds of 12 KTS, 6 KTS, and 3 KTS to demonstrate the 3-minute/6-minute rules.

Performance Criteria	Completed (Initials)
1. State the 3-minute and 6-minute rules.	_____
2. Calculate the time, in hours, it would take a boat traveling at a speed of 8 KTS to get from point A to point B.	_____
3. Calculate the speed, in knots, it would take a boat to get from point B to point C in 30 minutes.	_____
4. Calculate the speed, in knots, it would take a boat to get from point E to point C in 2 hours.	_____
5. Calculate the speed, in knots, it would take a boat to travel 200 yards in 3 minutes.	_____
6. Calculate the distance, in nautical miles, a boat would travel at a speed of 12 KTS for 2.4 hours.	_____

Instructor _____ **Date** _____

Comments _____


TASK BCM-06-08-ANY: Determine the Depth of Water Using a Fathometer, Depth Sounder 

- References**
- a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
 - b. Appropriate Electronics Operator's Manuals

Conditions

Task should be performed at any time, while underway, onboard one of the unit's boats. Demonstration should be performed in an area known to have accurate charted soundings. Steps 1 through 3 should be accomplished in water greater than 5 fathoms. Steps 4 and 5 should be accomplished in water less than 30 FT. Trainee must accomplish task without prompting or use of a reference.

Standards

 In response to the instructor, the trainee must, without error, identify different parts of the fathometer depth sounder and various functions. Soundings should be within 10% (allowing for range of tide) of the charted depth when working in water less than 30 FT. All other soundings should be within 2 fathoms of the charted depth.

Performance Criteria	Completed (Initials)
1. Identify location of fathometer.	_____
2. Energize fathometer/depth sounder and related equipment as required.	_____
3. Adjust illumination, backlighting and contrast as appropriate.	_____
4. Demonstrate entering "Offset Setup." Set appropriate depth.	_____
5. Correct "Offset Depth" in each piece of equipment as required.	_____
6. State the depth in three different positions. Instructor should fix position and verify readings.	_____

Instructor _____ **Date** _____

Comments _____


TASK BCM-06-09-TYPE: Use Radar to Identify Objects 

- References**
- a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
 - b. Radar Operator's Handbook
 - c. The American Practical Navigator
 - d. *Specific Boat Type Operator's Handbook*, COMDTINST M16114 (series)

Conditions

Task should be performed at any time, while underway, onboard the unit's boats. All of the objects listed must be identified using the installed radar and a local area chart, and then verified by sight. Trainee must accomplish task without prompting or use of a reference.

Standards

 In response to the instructor, the trainee must, without error, correctly demonstrate the steps in the task.



Performance Criteria	Completed (Initials)	Boat Type
1. Turn radar power switch on and allow unit to warm up.	_____ _____ _____	_____ _____ _____
2. If applicable, demonstrate toggling between transmit and standby modes.	_____ _____ _____	_____ _____ _____
3. Turn radar for maximum target return as required.	_____ _____ _____	_____ _____ _____
4. State the use of “gain,” “sea clutter” and “rain clutter.”	_____ _____ _____	_____ _____ _____
5. Demonstrate adjusting Use of “gain,” “sea clutter” and “rain clutter” as necessary.	_____ _____ _____	_____ _____ _____
6. If applicable, state the use of and demonstrate adjusting or enabling the following: a. AT A/C automatic clutter control b. Noise Rejection setting c. Interference Rejection setting d. Echo Stretch setting e. Echo Avering settings f. Echo Trails g. Change Radar Presentation Modes (North up, True Motion, Head-up, Course-up)	_____ _____ _____	_____ _____ _____
7. Recognize and visually verify three different prominent landmarks.	_____ _____ _____	_____ _____ _____
8. Recognize and visually verify two different aids to navigation.	_____ _____ _____	_____ _____ _____
9. Recognize and visually verify two different moving targets.	_____ _____ _____	_____ _____ _____
10. Identify a RACON on the radar screen (if applicable).	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____
Comments _____

TASK BCM-06-10-TYPE:

Determine the Range and Bearing to Objects Using Radar



References

- a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
- b. Radar Operator’s Handbook
- c. The American Practical Navigator

Conditions

Task should be performed at any time, while underway, onboard each of the unit’s boats. Weather should be calm to moderate. All of the steps must be accomplished using the installed radar and a local area chart, and then verified by sight. Trainee must accomplish task without prompting or use of a reference.

Standards



In response to the instructor, the trainee must, without error, identify the objects and correctly utilize the VRM and EBL functions to complete tasks two and three.

Performance Criteria	Completed (Initials)	Boat Type
1. Turn radar on and tune as required for maximum target return.	_____ _____ _____	_____ _____ _____
2. Report the ranges to three different objects.	_____ _____ _____	_____ _____ _____
3. Report the lines of position (LOPs) to three different objects.	_____ _____ _____	_____ _____ _____

Instructor _____

Date _____

Comments

TASK BCM-06-11-TYPE:

Use Radar to Obtain and Interpret Relative Bearings and Ranges to a Moving Target to

Determine if Risk of Collision Exists



References

- a. Knight’s Modern Seamanship
- b. *Navigation Rules International-Inland*, COMDTINST M16672.2 (series)
- c. Radar Operator’s Handbook
- d. The American Practical Navigator

Conditions

Task should be performed at any time, while underway, onboard the unit’s boats. Weather should be calm to moderate. All of the steps must be accomplished using the installed radar and verified by sight. Trainee must accomplish task without prompting or use of a reference.

Standards



Trainee must be able to determine the relative motion of the target within a “reasonable” amount of time and recommend an adjustment to the boat’s course to a risk of collision.



Performance Criteria	Completed (Initials)	Boat Type
1. Identify a moving target on the boat's radar.	_____ _____ _____	_____ _____ _____
2. Use the VRM and EBL or target acquisition ARP, TTM data functions to establish the target range and relative bearing.	_____ _____ _____	_____ _____ _____
3. Determine if the target is in a meeting situation or would be passing ahead or astern of the CG boat by monitoring the range and relative bearing.	_____ _____ _____	_____ _____ _____
4. Recommend course alteration, if necessary, to avoid the other boat.	_____ _____ _____	_____ _____ _____
5. State the meaning of "Constant Bearing, Decreasing Range."	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments

TASK BCM-06-12-TYPE: Operate the VHF-FM Direction Finder and Steer on a Signal

Reference a. Manufacturer's Operating Manual

Conditions Task should be performed at any time, while underway, onboard the unit's boats. Task will require the use of another radio transceiver at a known location. Trainee must accomplish task without prompting or use of a reference.

Standards In response to the instructor, the trainee must demonstrate the use of the FM direction finder. Course should be steered within 5° of the charted LOP.

Performance Criteria	Completed (Initials)	Boat Type
1. Identify direction finder and speakers.	_____ _____ _____	_____ _____ _____
2. Identify off/on switch and turn direction finder on.	_____ _____ _____	_____ _____ _____
3. Identify front panel indicator and controls.	_____ _____ _____	_____ _____ _____



Performance Criteria	Completed (Initials)	Boat Type
4. Identify volume control and adjust.	_____ _____ _____	_____ _____ _____
5. Identify squelch control and adjust to just beyond the point where static disappears.	_____ _____ _____	_____ _____ _____
6. Establish communications with another unit using appropriate working frequency.	_____ _____ _____	_____ _____ _____
7. Press the CH key.	_____ _____ _____	_____ _____ _____
8. Enter the appropriate channel using the numerical keypad, then press ENT.	_____ _____ _____	_____ _____ _____
9. State the direction of the signal.	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments

TASK BCM-06-13-TYPE: Obtain a Fix Using GPS/DGPS 

- References**
- a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
 - b. GPS Operator's Handbook
 - c. The American Practical Navigator

Conditions Task should be performed at any time, onboard the unit's boats. Trainee must accomplish task without prompting or use of a reference.

Standards In response to the instructor, the trainee must correctly demonstrate the use of the GPS/DGPS receiver.



Performance Criteria	Completed (Initials)	Boat Type
1. Energize set and verify set receiving a signal.	_____ _____ _____	_____ _____ _____



Performance Criteria	Completed (Initials)	Boat Type
2. Read and report latitude and longitude position to instructor.	_____ _____ _____	_____ _____ _____
3. Plot latitude and longitude position on chart.	_____ _____ _____	_____ _____ _____
4. Demonstrate using “Sailplan” and “Reverse Sailplan” or Route and Reverse Route (as applicable).	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments



TASK BCM-06-14-TYPE: Plot a Position Using LORAN-C TDs

References a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
 b. *The American Practical Navigator*

Conditions Task should be performed at any time, onboard the unit’s boats. Trainee must accomplish task without prompting or use of a reference.


Standards Trainee must either demonstrate knowledge or perform each task to the minimum standards included in each performance step.

Performance Criteria	Completed (Initials)	Boat Type
1. Describe LORAN-C and its purpose.	_____ _____ _____	_____ _____ _____
2. Explain Time Difference (TD) and how it is used.	_____ _____ _____	_____ _____ _____
3. Plot 3 loran positions by converting TD to Lat/Long using SINS or capable GPS.	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments



TASK BCM-06-15-TYPE: **Operate the Electronic Charting System** 

Reference a. *Electronic Charting System Operation Manual*

Conditions Task should be performed at any time, at facilities available to the unit.

Standards Trainee must either demonstrate knowledge or perform each task to the minimum standards included in each performance step.



Performance Criteria	Completed (Initials)	Boat Type
1. Describe the purpose of electronic charting.	_____ _____ _____	_____ _____ _____
2. State the specific features of the electronic charting system.	_____ _____ _____	_____ _____ _____
3. Describe the information provided in the cursor data box.	_____ _____ _____	_____ _____ _____
4. Describe the basic purpose of the soft keys, dedicated keys, and trackpad.	_____ _____ _____	_____ _____ _____
5. Perform the basic procedures for changing the chart scale and displaying information about objects.	_____ _____ _____	_____ _____ _____
6. Complete procedure for using quick routes.	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments

Section G. Mission-Oriented Operations

Introduction

The following are objectives of this section:

Demonstrate actions to take during a man overboard emergency.

Demonstrate procedures to signal an emergency.

Demonstrate procedures for helo hoist operation.

Demonstrate procedures for towing astern and alongside.

Demonstrate procedures for dewatering another boat.

Demonstrate procedures to combat a fire onboard own boat or another boat.

In this section

This section contains the following tasks:



Task Number	Task	See Page
BCM-07-01-TYPE	Participate in a Man Overboard Evolution as a Pointer	2-59
BCM-07-02-TYPE	Participate in a Man Overboard Evolution as a Recovery/Pickup Person	2-60
BCM-07-03-ANY	Participate in a Man Overboard Evolution as a Surface Swimmer	2-61
BCM-07-04-ANY	Stokes Litter	2-62
BCM-07-05-TYPE	Recover a Person-in-the-Water with the Stokes Litter	2-62
BCM-07-06-ANY	Helicopter Operations	2-63
BCM-07-07-TYPE	Conduct Helo-Ops	2-63
BCM-07-08-ANY	Fire the MK-127A1 Parachute Illumination Signal	2-64
BCM-07-09-ANY	Bend a Heaving Line to a Bridle and Pass the Heaving Line to Another Boat	2-65
BCM-07-10-TYPE	Pass a Towline to Another Boat	2-65
BCM-07-11-ANY	Connect a Towline to a Trailer Eyebolt Using a Shackle or Skiff Hook	2-66
BCM-07-12-TYPE	Secure an Alongside Tow	2-67
BCM-07-13-ANY	Prepare the Portable Pump for Operation, Start, and Obtain Suction	2-67
BCM-07-14-TYPE	Assist in Passing a Portable Pump Directly to Another Boat	2-69
BCM-07-15-TYPE	Rig and Operate an Eductor to Obtain Suction	2-70
BCM-07-16-ANY	Identify the Different Classes of Fires, State the Fuel Sources, and State the Extinguishing Agents for Each Class of Fire	2-71
BCM-07-17-TYPE	Locate and Identify the Firefighting Equipment Carried Onboard the Boat	2-71



Task Number	Task	See Page
BCM-07-18-ANY	Demonstrate Knowledge of the Operation of a CO2 Fire Extinguisher	2-72
BCM-07-19-ANY	Demonstrate Knowledge of the Operation of a Dry Chemical Fire Extinguisher	2-73
BCM-07-20-TYPE	Assemble Equipment for the Boat's Main Firefighting System	2-73
BCM-07-21-TYPE	Engage the Boat's Main Fire Pump	2-74
BCM-07-22-TYPE	Operate a Vari-Nozzle	2-75
BCM-07-23-TYPE	Demonstrate Knowledge of the Procedures to Combat a Fire in the Engine Space	2-76

TASK BCM-07-01-TYPE: Participate in a Man Overboard Evolution as a Pointer

Reference

a. *Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)*

Conditions

Task should be performed during the day and at night, while underway onboard the unit's boats. Where possible, this task should be performed with an actual person in the water. When not possible due to weather conditions or water temperature, Training boat crews for Person in the Water Recovery requires the use of a lifelike dummy (OSCAR). The recommended OSCAR is a stuffed and weighted (approximately 180 lbs dry) Anti-Exposure Coverall secured at the neck and feet. Trainee must accomplish task without prompting or use of a reference.

Standards

In response to the instructor, the trainee must move to his/her correct Station and perform the task steps without hesitation.

Performance Criteria	Completed (Initials)	Boat Type
1. Keep Person in the Water (PIW) in sight continuously and sound alarm.	_____ _____ _____	_____ _____ _____
2. Proceed immediately to assigned position.	_____ _____ _____	_____ _____ _____
3. Keep Coxswain continuously informed of PIW position both vocally and by pointing.	_____ _____ _____	_____ _____ _____
4. Upon command, move to assigned position, and assist with pickup of PIW.	_____ _____ _____	_____ _____ _____

Instructor _____

Date _____

Comments



TASK BCM-07-02-TYPE: **Participate in a Man Overboard Evolution as a Recovery/Pickup Person**



Reference

a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions

Task should be performed at any time, onboard the unit's boats. Where possible, this task should be performed with an actual person in the water. When not possible due to weather conditions or water temperature, Training boat crews for Person in the Water Recovery requires the use of a lifelike dummy (OSCAR). The recommended OSCAR is a stuffed and weighted (approximately 180 lbs dry) Anti-Exposure Coverall secured at the neck and feet. Trainee must accomplish task without prompting or use of a reference.

Standards



In response to the instructor, the trainee must move to his/her correct Station and perform the task steps without hesitation.

Performance Criteria	Completed (Initials)	Boat Type
1. Proceed immediately to assigned position (should be lowest point of freeboard away from screws).	_____ _____ _____	_____ _____ _____
2. Prepare a rescue heaving line, if PIW is conscious.	_____ _____ _____	_____ _____ _____
3. On command, throw a rescue heaving line to PIW, if PIW is conscious.	_____ _____ _____	_____ _____ _____
4. Pull PIW alongside the boat, if PIW is conscious.	_____ _____ _____	_____ _____ _____
5. Pull the PIW aboard using two persons.	_____ _____ _____	_____ _____ _____

Instructor

Date

Comments



TASK BCM-07-03-ANY: Participate in a Man Overboard Evolution as a Surface Swimmer 

References

- a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
- b. *Rescue and Survival Systems Manual*, COMDTINST M10470.10 (series)
- c. *U.S. Coast Guard Addendum to the United States National Search and Rescue Supplement (NSS) to the International Aeronautical and Maritime Search and Rescue Manual*, COMDTINST M16130.2 (series)

Conditions

Where possible, this task should be performed with an actual person in the water. When not possible due to weather conditions or water temperature, Training boat crews for Person in the Water Recovery requires the use of a lifelike dummy (OSCAR). The recommended OSCAR is a stuffed and weighted (approximately 180 lbs dry) Anti-Exposure secured at the neck and feet.

Standards



In response to the instructor, the trainee must perform the task steps without hesitation. Review the policy outlined in references (b) and (c).

NOTE 

The intent of this task is to ensure crew member can remove another person from the water. Task may need to be modified, depending upon equipment carried as part of boat outfit.

Performance Criteria	Completed (Initials)
1. State the surface swimmer policy as outlined in the above references.	_____
2. Don necessary rescue equipment/PPE.	_____
3. On command, enter the water feet first.	_____
4. Hold PIW in cross shoulder position, while pulled back to boat by tender.	_____
5. Place PIW in stokes litter (only if person is seriously injured and seas are calm).	_____
6. Assist while PIW hauled onboard.	_____

Instructor _____

Date _____

Comments



TASK BCM-07-04-ANY: Stokes Litter

Reference	a. <i>Rescue and Survival Systems Manual</i> , COMDTINST M10470.10 (series)
Conditions	Task should be performed at any time at facilities available to the unit.
Standards	Trainee must either demonstrate knowledge or perform each task to the minimum standards included in each performance step.

Performance Criteria	Completed (Initials)
1. Review stokes litter policy and guidelines provided in the <i>Rescue and Survival Systems Manual</i> , COMDTINST M10470.10 (series).	_____
2. State what type of stokes litter is authorized for use.	_____
3. State procedures necessary for securing a patient in the litter.	_____
4. State flotation kit requirements.	_____

Instructor _____ **Date** _____

Comments _____

TASK BCM-07-05-TYPE: Recover a Person-in-the-Water with the Stokes Litter

References	a. <i>Boat Crew Seamanship Manual</i> , COMDTINST M16114.5 (series) b. <i>Rescue and Survival Systems Manual</i> , COMDTINST M10470.10 (series)
Conditions	Task should be performed at any time, onboard the unit’s boats. Where possible, this task should be performed with an actual person in the water. When not possible due to weather conditions or water temperature, Training boat crews for Person in the Water Recovery requires the use of a lifelike dummy (OSCAR). The recommended OSCAR is a stuffed and weighted (approximately 180 lbs dry) Anti-Exposure Coverall secured at the neck and feet. Trainee must accomplish task without prompting or use of a reference.
Standards	In response to the instructor, the trainee must perform the task steps without hesitation. Review the policy outlined in the <i>Boat Crew Seamanship Manual</i> , COMDTINST M16114.5 (series) and the <i>Rescue and Survival Systems Manual</i> , COMDTINST M10470.10 (series).

NOTE

The intent of this task is to ensure crew member can remove another person from the water. Task may need to be modified, depending upon equipment carried as part of the boat outfit.

Performance Criteria	Completed (Initials)	Boat Type
1. Make ready stokes litter, manila tending lines, and patient securing straps.	_____ _____ _____	_____ _____ _____
2. Place stokes litter in water and tend with assistance of another crew member.	_____ _____ _____	_____ _____ _____



Performance Criteria	Completed (Initials)	Boat Type
3. Place patient or Oscar in litter and attach all straps in correct order.	_____ _____ _____	_____ _____ _____
4. Assist while patient is hauled onboard (head first).	_____ _____ _____	_____ _____ _____
5. Check the patient to assess his/her physical condition and give first aid as needed.	_____ _____ _____	_____ _____ _____
6. Assist in carrying stokes litter with patient from the boat to the shore.	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments _____

TASK BCM-07-06-ANY: Helicopter Operations

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time at facilities available to the unit.

Standards Trainee must either demonstrate knowledge or perform each task to the minimum standards included in each performance step.

Performance Criteria	Completed (Initials)
1. Review air operations chapter of the <i>Boat Crew Seamanship Manual</i> , COMDTINST M16114.5 (series).	_____
2. State delivery and hoisting methods.	_____
3. State safety precautions associated with delivery and hoisting.	_____

Instructor _____ **Date** _____

Comments _____

TASK BCM-07-07-TYPE: Conduct Helo-Ops

NOTE

Task **ONLY** applies to boats 40 FT and above.

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed onboard the unit's boats during daylight hours, in fair weather



conditions. All crew members should be wearing gloves, helmets, goggles, PFDs, hearing protection, in addition to appropriate exposure gear and boat crew personnel survival vests. Rescue device and/or line must not become entangled or otherwise attached to the boat at any time. Rescue device must be grounded to the boat before crew members handle it. Trainee must accomplish task without prompting or use of a reference.

NOTE

If no helicopter training is available, this task may be deferred. Task must be completed at the earliest possible time.

Standards

In response to the instructor, the trainee should perform the tasks in accordance with the steps listed below.

Performance Criteria	Completed (Initials)	Boat Type
1. Secure loose gear before operations.	_____ _____ _____	_____ _____ _____
2. Ground rescue device using a deadman stick.	_____ _____ _____	_____ _____ _____
3. Bring rescue device onto the boat's deck by hand or by using a tag line.	_____ _____ _____	_____ _____ _____
4. Tend rescue device as it is lifted from boat and hoisted to helicopter.	_____ _____ _____	_____ _____ _____

Instructor _____

Date _____

Comments

TASK BCM-07-08-ANY:

Fire the MK-127A1 Parachute Illumination Signal

Reference

a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions

Task should be performed at night, ashore or underway. Trainee must accomplish task without prompting or use of a reference.

Standards

Trainee must break out, prepare, and launch the MK-127A1 signal.

Performance Criteria	Completed (Initials)
1. Remove signal from its container.	_____
2. Hold signal in left hand with red band facing up.	_____
3. Withdraw firing cap from lower end.	_____
4. Inspect cork sealing disc for looseness. If disc is loose, flare should not be fired.	_____
5. Point ejection end, opposite the red band, away from body and other people or objects.	_____



Performance Criteria	Completed (Initials)
6. Push firing cap slowly onto primer end until cap is aligned with the lower edge of the red band.	_____
7. Position signal so that firing end is perpendicular to the deck with the firing cap facing downward.	_____
8. Fire signal by striking firing cap bottom with the palm of the right hand.	_____
9. Keep the arm rigid and pointed straight up.	_____


Instructor _____ **Date** _____

Comments

TASK BCM-07-09-ANY: Bend a Heaving Line to a Bridle and Pass the Heaving Line to Another Boat 

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time onboard one of the unit's boats. Heaving line used should be at least 75 FT long. The target boat must be at least 40 FT away from the boat at the time of the toss. Trainee must accomplish task without prompting or use of a reference.

Standards  In response to the instructor, the trainee must pass the line to the target boat, in accordance with the steps listed below, on two out of three throws. The heaving line should pass over the target boat, but not hit it.

Performance Criteria	Completed (Initials)
1. Wet heaving line to relieve stiffness.	_____
2. Bend one heaving line onto the bridle eye using a bowline and second onto the throat using a clove hitch with two half hitches, or a snap hook.	_____
3. Make heaving line into tight coils.	_____
4. Place two-thirds of coil in casting hand.	_____
5. Instruct people on other boat to take cover.	_____
6. On command, throw heaving line over the target boat and tend.	_____

Instructor _____ **Date** _____

Comments

TASK BCM-07-10-TYPE: Pass a Towline to Another Boat 

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time, onboard the unit's boats, while taking another boat in tow. Trainee must accomplish task without prompting or use of a reference.

Standards In response to the instructor, the trainee must, in accordance with the procedures listed below, perform all line handling related to passing a tow line.



Performance Criteria	Completed (Initials)	Boat Type
1. Using heaving lines, pass towline to the boat to be towed.	_____	_____
2. Tend towline while people on other boat make attachment.	_____	_____
3. Place a proper working turn around the towing bitt and pay out the line, as directed.	_____	_____
4. On command, secure towline to the towing bitt.	_____	_____
5. On command, break towing bitt down to a working turn, pay towline out.	_____	_____
6. On command, make up bitt.	_____	_____

Instructor _____ **Date** _____

Comments _____

TASK BCM-07-11-ANY: Connect a Towline to a Trailer Eyebolt Using a Shackle or Skiff Hook

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time, onboard any of the unit's boats, while taking another boat in tow. Trainee must accomplish task without prompting or use of a reference.

Standards In response to the instructor, the trainee must, in accordance with the procedures listed below, perform all line handling related to connecting a towline to a boat's trailer eyebolt.

Performance Criteria	Completed (Initials)
1. Prepare towing line with skiff hook assembly or shackle attached.	_____
2. Connect towline to eyebolt using skiff hook assembly or shackle, while disabled boat is off either quarter.	_____
3. Tend towline from towing boat with proper working-turn around the tow bitt.	_____
4. On command, secure towline to the tow bitt.	_____
5. On command, break down the tow bitt to a working turn, and pay out towline.	_____



Performance Criteria	Completed (Initials)
6. On command, make up tow bitt.	_____

Instructor _____ **Date** _____

Comments _____

TASK BCM-07-12-TYPE: **Secure an Alongside Tow**

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time, onboard the unit's boats. Trainee must accomplish task without prompting or use of a reference.

Standards In response to the instructor, the trainee must, without prompting, correctly tend and secure the towline and side lines in accordance with the procedures listed below.



Performance Criteria	Completed (Initials)	Boat Type
1. Rig fenders and set up lines on the side where tow will be secured.	_____ _____ _____	_____ _____ _____
2. If using stern towline, upon command, walk towline forward and fake out excess line on deck, out of the way.	_____ _____ _____	_____ _____ _____
3. If using stern towline, upon command, lead tow line forward and use as the bow line.	_____ _____ _____	_____ _____ _____
4. Secure other lines as directed by the Coxswain.	_____ _____ _____	_____ _____ _____
5. Explain the purpose of each line (bow, stern, towing strap, back spring).	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments _____

TASK BCM-07-13-ANY: **Prepare the Portable Pump for Operation, Start, and Obtain Suction**

NOTE

Task **DOES NOT** apply to cutterboats.



References	a. Dewatering Pump Manufacturer’s Instructions b. <i>Rescue and Survival Systems Manual</i> , COMDTINST M10470.10 (series)
Conditions	Task should be performed at any time, onboard the unit’s boats. Trainee must accomplish task without prompting or use of a reference.
Standards	In response to the instructor, the trainee must, without error, prepare and start the pump in accordance with the procedures listed below. The pump must take suction in order for this task to be considered successful.

Performance Criteria	Completed (Initials)
1. Open and remove pump from pump can.	_____
2. Check oil. Fill if needed.	_____
3. Mount and connect fuel tank (if applicable).	_____
4. Connect and unroll discharge hose.	_____
5. Connect suction hose.	_____
6. Place suction hose strainer in water.	_____
7. Prime pump.	_____
8. Start pump engine within six pulls.	_____
9. Take suction and discharge water from the pump.	_____
10. Drain, flush out with freshwater, clean up and secure pump.	_____

Instructor _____ **Date** _____

Comments _____



TASK BCM-07-14-TYPE: Assist in Passing a Portable Pump Directly to Another Boat

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time, onboard the unit’s boats, acting as a member of a two-man team. Trainee must accomplish task without prompting or use of a reference.

Standards In response to the instructor, the trainee must demonstrate passing the pump in accordance with the procedures listed below.

Performance Criteria	Completed (Initials)	Boat Type
1. Attach mooring line to pump can handle.	_____ _____ _____	_____ _____ _____
2. Secure heaving line to mooring line using bowline or double becket bend.	_____ _____ _____	_____ _____ _____
3. Attach mooring line to other handle.	_____ _____ _____	_____ _____ _____
4. Pass heaving line to other boat.	_____ _____ _____	_____ _____ _____
5. Tend pump can using mooring line while people on other boat haul it in (lines should never be allowed to lay slack in the water around the boats).	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments



TASK BCM-07-15-TYPE: Rig and Operate an Eductor to Obtain Suction

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time, pierside or underway, on boats carrying eductor equipment. Task should be performed using the installed pump onboard the boat. Trainee must accomplish task without prompting or use of a reference.

Standards In response to the instructor, the trainee must prepare the eductor and put it into operation in accordance with the procedures listed below. The eductor must take suction in order for this task to be considered successful.

Performance Criteria	Completed (Initials)	Boat Type
1. Connect eductor supply hose to pump outlet using 25 FT length of hose.	_____ _____ _____	_____ _____ _____
2. Connect 1½-inch supply hose to the eductor.	_____ _____ _____	_____ _____ _____
3. Connect 2½-inch discharge hose to the eductor.	_____ _____ _____	_____ _____ _____
4. Submerge eductor in the water to be pumped.	_____ _____ _____	_____ _____ _____
5. Engage pump engine.	_____ _____ _____	_____ _____ _____
6. Observe suction and discharge water through the eductor. Ensure discharge flowing overboard.	_____ _____ _____	_____ _____ _____
7. Secure pump.	_____ _____ _____	_____ _____ _____
8. Drain, flush out with fresh water, clean up and secure pump.	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____


Comments



TASK BCM-07-16-ANY: Identify the Different Classes of Fires, State the Fuel Sources, and State the Extinguishing Agents for Each Class of Fire 

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time ashore or afloat. Trainee must accomplish task without prompting or use of a reference.

Standards  In response to the instructor, the trainee must, without error state, the answers called for in the steps below.

Performance Criteria	Completed (Initials)
1. State most common fuels for Class A fires, and state the primary extinguishing agent for a Class A fire.	_____
2. State most common fuels for Class B fires, and state the primary extinguishing agent for a Class B fire.	_____
3. State most common source for Class C fires, and state the primary extinguishing agent for a Class C fire.	_____
4. State most common fuels for Class D fires, and state the primary agents for containing a Class D fire.	_____


Instructor _____ **Date** _____

Comments _____

TASK BCM-07-17-TYPE: Locate and Identify the Firefighting Equipment Carried Onboard the Boat 

Reference a. Boat outfit or daily checkoff list for the boat

Conditions Task should be performed at any time, onboard the unit's boats. Only those items carried on the boat need to be identified. Trainee must accomplish task without prompting or use of a reference.

Standards  In response to the instructor, the trainee must identify all of the firefighting equipment carried on the boat, and state the purpose of each piece.

Performance Criteria	Completed (Initials)	Boat Type
1. Identify and state the purpose of the installed fire pump and controls.	_____ _____ _____	_____ _____ _____
2. Identify and state the purpose of the portable fire pump(s).	_____ _____ _____	_____ _____ _____
3. Identify and state the purpose of all fire hoses.	_____ _____ _____	_____ _____ _____



Performance Criteria	Completed (Initials)	Boat Type
4. Identify and state the purpose and capabilities of the nozzle.	_____ _____ _____	_____ _____ _____
5. Identify and state the purpose of all Y or tri-gates and hose fittings.	_____ _____ _____	_____ _____ _____
6. Identify and state the purpose of all spanner wrenches.	_____ _____ _____	_____ _____ _____
7. Identify and state the purpose of the fixed extinguishing system.	_____ _____ _____	_____ _____ _____
8. Identify and state the purpose of all CO ₂ fire extinguishers.	_____ _____ _____	_____ _____ _____
9. Identify and state the purpose of all dry chemical extinguishers.	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments _____

TASK BCM-07-18-ANY:

Demonstrate Knowledge of the Operation of a CO₂ Fire Extinguisher



Reference

a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions

Task should be performed at any time, ashore or afloat. Trainee must accomplish task without prompting or use of a reference.

Standards




In response to the instructor, the trainee must demonstrate the use of a CO₂ fire extinguisher in accordance with the guidelines listed below.

Performance Criteria	Completed (Initials)
1. Carry extinguisher in upright position.	_____
2. Identify the locking pin and explain its purpose, and remove from valve (simulate removing pin).	_____
3. Ground cylinder by placing it on deck.	_____
4. Point horn at target and explain how to activate the extinguisher.	_____
5. Direct CO ₂ at the base of the fire (simulate).	_____



Instructor _____ **Date** _____

Comments

TASK BCM-07-19-ANY: Demonstrate Knowledge of the Operation of a Dry Chemical Fire Extinguisher 

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time, ashore or afloat. Trainee must accomplish task without prompting or use of a reference.

Standards In response to the instructor, the trainee must demonstrate the use of a dry chemical fire extinguisher in accordance with the guidelines listed below.



Performance Criteria	Completed (Initials)
1. Check fill cap for tightness.	_____
2. Identify and explain removal of the locking pin from the cutter assembly.	_____
3. Explain how puncture lever is pushed down, and why this is done.	_____
4. Approach fire from the windward side.	_____
5. Remain at least 8 FT from the fire.	_____
6. Point extinguisher at base of fire, explain discharge procedure.	_____

Instructor _____ **Date** _____

Comments

TASK BCM-07-20-TYPE: Assemble Equipment for the Boat’s Main Firefighting System (Installed System or Portable Pump with Vari Nozzle optional Hose)

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time, onboard the unit’s boats, acting as a member of a team. Only those steps applicable to the boat type need to be accomplished. Trainee must accomplish task without prompting or use of a reference.

Standards In response to the instructor, the trainee must correctly connect those pieces of equipment necessary to use the boat’s firefighting equipment for fighting a fire. Demonstration should be completed within 15 minutes.

Performance Criteria	Completed (Initials)	Boat Type
1. Connect Y or tri-gate to the firemain (as applicable).	_____ _____ _____	_____ _____ _____



Performance Criteria	Completed (Initials)	Boat Type
2. Connect 1½-inch hose to Y or tri-gate and attach vari-nozzle.	_____ _____ _____	_____ _____ _____
3. Place correct gates of the Y or tri-gate in open position.	_____ _____ _____	_____ _____ _____
4. Charge fire hose.	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments _____

TASK BCM-07-21-TYPE: Engage the Boat’s Main Fire Pump

Reference a. *Specific Boat Type Operator’s Handbook*, COMDTINST M16114 (series)

Conditions Task should be performed at any time, onboard the unit’s boats. Task need only be done for those boats with an installed firefighting system, or a semi-attached portable pump used for firefighting. Only those steps applicable to the boat type should be done. Trainee must accomplish task without prompting or use of a reference.

Standards In response to the instructor, the trainee must correctly demonstrate the use of the boat’s fire pump in accordance with the guidelines listed below. Task must be completed within 10 minutes.

Performance Criteria	Completed (Initials)	Boat Type
1. Place engine in neutral.	_____ _____ _____	_____ _____ _____
2. Open firemain sea suction valve.	_____ _____ _____	_____ _____ _____
3. Energize fire pump.	_____ _____ _____	_____ _____ _____
4. Break out and rig portable pump.	_____ _____ _____	_____ _____ _____



Performance Criteria	Completed (Initials)	Boat Type
5. Connect all gates and hoses.	_____ _____ _____	_____ _____ _____
6. Open discharge valve.	_____ _____ _____	_____ _____ _____
7. Open air vent valve.	_____ _____ _____	_____ _____ _____
8. Start pump engine (if separate).	_____ _____ _____	_____ _____ _____
9. Engage and charge system.	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments _____

TASK BCM-07-22-TYPE: Operate a Vari-Nozzle

Reference a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)

Conditions Task should be performed at any time, onboard the unit's boats. Hose should be charged and water discharged. Trainee must accomplish task without prompting or use of a reference.

Standards In response to the instructor, the trainee must demonstrate the use of the vari-nozzle in accordance with the guidelines listed below. Task should be completed within five minutes.

Performance Criteria	Completed (Initials)	Boat Type
1. Connect nozzle to 1½-inch hose.	_____ _____ _____	_____ _____ _____
2. Man nozzle and open nozzle.	_____ _____ _____	_____ _____ _____
3. Demonstrate wide-angle fog.	_____ _____ _____	_____ _____ _____



Performance Criteria	Completed (Initials)	Boat Type
4. Demonstrate narrow angle fog (power cone).	_____ _____ _____	_____ _____ _____
5. Demonstrate straight stream.	_____ _____ _____	_____ _____ _____
6. Demonstrate flush feature.	_____ _____ _____	_____ _____ _____


Instructor _____ **Date** _____

Comments _____

TASK BCM-07-23-TYPE: Demonstrate Knowledge of the Procedures to Combat a Fire in the Engine Space or Outboard Engine. 

Reference a. *Specific Boat Type Operator's Handbook*, COMDTINST M16114 (series)

Conditions Task should be performed at any time, acting as a member of a team, onboard the unit's boats. Trainee must accomplish task without prompting or use of a reference.

Standards  In response to the instructor, the trainee must demonstrate the use of the main fire extinguishing system and the procedures for fighting engine space fires in accordance with the guidelines listed below. The demonstration must be accomplished within five minutes.

Performance Criteria	Completed (Initials)	Boat Type
1. Sound alarm to other crew members by shouting: "FIRE, FIRE, FIRE."	_____ _____ _____	_____ _____ _____
2. Secure engines (upon command).	_____ _____ _____	_____ _____ _____
3. Secure air supply to engine space (upon command, if possible).	_____ _____ _____	_____ _____ _____
4. Simulate and explain activating fixed firefighting system, if available.	_____ _____ _____	_____ _____ _____



Performance Criteria	Completed (Initials)	Boat Type
5. Aim fire extinguisher, if used, at base of the fire, simulating fighting the fire.	_____ _____ _____	_____ _____ _____

Instructor _____ Date _____


Comments _____

TASK BCM-07-24-TYPE: Demonstrate the Appropriate Response to the Basic Engineering Casualty Control

Exercises (BECCE) 

References
 a. *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
 b. Manufacturer’s Operator’s Manual and Technical Publication

Conditions
 Task should be performed at any time, onboard the unit’s boats. Trainee must accomplish task without prompting or use of a reference.

Standards
 In response to the instructor, the trainee must, without error, demonstrate the steps taken for each of the BECCEs listed, as stated in the above reference.

Performance Criteria	Completed (Initials)	Boat Type
1. Fire in the engine room or outboard engine.	_____ _____ _____	_____ _____ _____
2. Loss of steering (cable/hydraulic).	_____ _____ _____	_____ _____ _____
3. Loss of steering (jammed rudder).	_____ _____ _____	_____ _____ _____
4. Accidental grounding.	_____ _____ _____	_____ _____ _____
5. Collision with submerged object.	_____ _____ _____	_____ _____ _____
6. Reduction gear failure.	_____ _____ _____	_____ _____ _____



Performance Criteria	Completed (Initials)	Boat Type
7. Main engine high water temperature.	_____ _____ _____	_____ _____ _____
8. Loss of main engine lube oil pressure.	_____ _____ _____	_____ _____ _____
9. Loss of fuel oil pressure.	_____ _____ _____	_____ _____ _____
10. Loss of control of engine RPM.	_____ _____ _____	_____ _____ _____
11. General starting difficulties, including engine not starting and emergency starting procedures.	_____ _____ _____	_____ _____ _____
12. Cooling system casualties.	_____ _____ _____	_____ _____ _____
13. Propeller damage and excessive cavitation.	_____ _____ _____	_____ _____ _____
14. Immersed outboard.	_____ _____ _____	_____ _____ _____
15. Loss of electrical power.	_____ _____ _____	_____ _____ _____

Instructor _____ **Date** _____

Comments _____



Chapter 3

Boat Crew Member Trainee Study Guide

Introduction

This chapter should be removed and given to the trainee to keep. Its purpose is to provide guidance for the trainee’s reading assignments and is not a part of the training record/E-Training system.

The trainee should read the appropriate reading assignment and answer the related questions prior to beginning training in each new task. The instructor should then discuss the trainee’s answers to ensure understanding of the subject matter prior to beginning instruction for each new task.

NOTE

If there is no reading assignment assigned for a specific task, then the task will not have a page number to reference.

In this chapter

This chapter contains the following sections:

Section	Title	See Page
A.	Reading AssignmentsA	2-80
B.	Reading AssignmentsB	2-82
C.	Reading AssignmentsC	2-90
D.	Reading AssignmentsD	2-94
E.	Reading Assignments	2-100
F.	Reading Assignments	2-102
G.	Reading Assignments	2-108



Section A. Reading Assignments

Introduction

The reading assignment(s) should be read prior to beginning instruction of each task.

In this section

This section contains the following reading assignments:

Task Number	Task Title	Reading Assignment	See Page
BCM-01-01-ANY	Crew Fatigue	<ul style="list-style-type: none">• <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series)	2-81
BCM-01-02-ANY	Motion Sickness	<ul style="list-style-type: none">• <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series)	2-81
BCM-01-03-ANY	Team Coordination Training (TCT)	<ul style="list-style-type: none">• None assigned	



TASK BCM-01-01-ANY: Crew Fatigue

1. Mental and physical fatigue is among the _____ during rough weather operations.
 2. The primary symptoms of fatigue are:
 - a.
 - b.
 - c.
 - d.
 - e.
 - f.
 3. Some preventive measures are:
 - a.
 - b.
 - c.
 - d.
 - e.
 - f.
 4. Some other environmental conditions that also promote fatigue are:
 - a.
 - b.
 - c.
 - d.
-

TASK BCM-01-02-ANY: Motion Sickness

1. Motion sickness occurs when there is an imbalance between _____ images and the portion of the _____ which senses motion.
 2. Reading chart work, or other tasks that require close attention, will _____ motion sickness.
 3. *Anti-motion Sickness Medications*, COMDTINST 6710.15D, restricts medication use. Specifically, it must not be given under the following circumstances:
 - a.
 - b.
 - c.
-



Section B. Reading Assignments

Introduction

The reading assignment(s) should be read prior to beginning instruction of each task.

In this section

This section contains the following reading assignments:

Task Number	Task Title	Reading Assignment	See Page
BCM-02-01-ANY	Personal Physical Fitness and Vision	<ul style="list-style-type: none"> None Assigned 	
BCM-02-02-ANY	Crew First-Aid Responsibility	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-84
BCM-02-03-ANY	Demonstrate Adult, Child and Infant CPR	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-84
BCM-02-04-ANY	Don the Type III PFD	<ul style="list-style-type: none"> <i>Rescue and Survival Systems Manual</i>, COMDTINST M10470.10 (series) 	2-85
BCM-02-05-ANY	Don Anti-Exposure Coveralls	<ul style="list-style-type: none"> <i>Rescue and Survival Systems Manual</i>, COMDTINST M10470.10 (series) 	2-85
BCM-02-06-ANY	Don the Boat Crew Dry Suit	<ul style="list-style-type: none"> <i>Rescue and Survival Systems Manual</i>, COMDTINST M10470.10 (series) 	2-85
BCM-02-07-ANY	Identify Boat Crew Survival Vest Equipment	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) <i>Rescue and Survival Manual</i>, COMDTINST M10470.10 (series) 	2-86
BCM-02-08-ANY	Use the Emergency Signaling Mirror	<ul style="list-style-type: none"> None assigned 	
BCM-02-09-ANY	Demonstrate the Use of the MK-124 Smoke and Illumination Signal	<ul style="list-style-type: none"> None assigned 	
BCM-02-10-ANY	Demonstrate the Use of the MK-79 Illumination Signal Kit	<ul style="list-style-type: none"> None assigned 	
BCM-02-11-ANY	Operate the Distress Signal Light	<ul style="list-style-type: none"> None assigned 	
BCM-02-12-ANY	Operate the Personal Locator Beacon	<ul style="list-style-type: none"> None assigned 	
BCM-02-13-ANY	Don the Boat Crew Survival Vest	<ul style="list-style-type: none"> <i>Rescue and Survival Systems Manual</i>, COMDTINST M10470.10 (series) 	2-87
BCM-02-14-ANY	Don the Inflatable PFD	<ul style="list-style-type: none"> <i>Rescue and Survival Systems Manual</i>, COMDTINST M10470.10 (series) 	2-87
BCM-02-15-TYPE	Explain the Manual Deployment and Boarding Procedures for the Rescue and Survival Raft	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) <i>Rescue and Survival Manual</i>, COMDTINST M10470.10 (series) 	2-87
BCM-02-16-TYPE	List Survival Procedures in Event of Boat Capsize	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-88



Task Number	Task Title	Reading Assignment	See Page
BCM-02-17-ANY	Open Water Survival Skills	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) • <i>Rescue and Survival Systems Manual</i>, COMDTINST M10470.10 (series) • <i>Team Coordination Training</i>, COMDTINST 1541.1 	2-88
BCM-02-18-ANY	Perform Water Survival Exercise	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) • <i>Rescue and Survival Systems Manual</i>, COMDTINST M10470.10 (series) 	2-89



TASK BCM-02-02-ANY: Crew First-Aid Responsibility

1. What are dressings and bandages used for?
 2. What is the first step in caring for bleeding wounds?
 3. What should you do if you think a victim has serious internal bleeding?
 4. What should you do for someone who is suffering from a heat-related illness?
 5. What should you do if you find someone with a piece of glass sticking out of their arm?
 6. Why should you cover burns with a clean or sterile dressing?
-

TASK BCM-02-03-ANY: Demonstrate Adult, Child and Infant CPR

1. In a life-threatening situation, what is the most important thing you can do to help an adult?
 2. What is a signal of breathing difficulty?
 3. What should you do to determine whether a victim requires rescue breathing?
 4. In a life-threatening situation, what is the most important thing you can do to help a child?
 5. What is a signal of breathing difficulty?
 6. In a life-threatening situation, what is the most important thing you can do to help an infant?
 7. What is a signal of breathing difficulty?
 8. What should you do to determine whether or not a victim requires rescue breathing?
 9. What should you do for a conscious adult who is choking and cannot cough?
 10. When should you stop CPR?
 11. One cycle of CPR for an adult includes ____ compressions and ____ breath(s).
 12. Where on an adult victim should you feel for a pulse?
 13. Where do you check for a pulse on an infant?
 14. How often should you give rescue breaths to a child who is not breathing but does have a pulse?
 15. One cycle of CPR for a child includes ____ compressions and ____ breath(s).
-



TASK BCM-02-04-ANY: Don the Type III PFD

1. The Type III PFD is normally worn aboard boats when _____ is required.
 2. True or False. The Type III PFD will turn a crew member face up if he/she falls overboard and is rendered unconscious.
 3. The Type III PFD has a tendency to _____ on the wearer in the water.
-

TASK BCM-02-05-ANY: Don Anti-Exposure Coveralls

1. True or False. Wearing a Type I or III PFD over an anti-exposure coverall may be dangerous in certain situations.
 2. The anti-exposure coveralls have straps located at the _____, _____, _____ and _____ which should be tightened before entering the water.
 3. The anti-exposure coveralls is ideal for cold weather operations with _____ cockpit boats.
-

TASK BCM-02-06-ANY: Don the Boat Crew Dry Suit

1. The dry suit shall be worn in _____ cockpit boats when the water temperature is below _____ ° F and the air temperature is below _____ ° F.
 2. The dry suit has watertight seals at the _____, _____ and _____.
 3. To afford the maximum protection from hypothermia, the dry suit must be worn with the _____.
 4. True or False. The dry suit must never be worn over regular clothing.
 5. A _____ must be worn over a dry suit at all times.
-



TASK BCM-02-07-ANY: Identify Boat Crew Survival Vest Equipment

1. The boat crew survival vest was designed to aid personnel to _____ in hazardous situations.
 2. The survival knife is used to _____ yourself if you become entangled.
 3. The emergency signaling mirror is used to attract the attention of passing _____, _____ or boats.
 4. Reflected light from the emergency signal mirror can be seen at a _____ from the point of origin.
 5. It does this by _____ light at them.
 6. To use the mirror, you should face a point about _____ between the sun and the object you wish to signal.
 7. The night end of the MK-124 smoke and illumination signal produces a _____.
 8. The day end of the signal produces _____ smoke.
 9. Two prominent bands around the circumference identify the _____ end.
 10. After the seal has been broken, the signal is activated by a pull on the _____.
 11. The signal should be held downwind and overhead at a _____° angle _____ flame.
 12. The signal in the MK-79 kit can be fired to an altitude of 250 FT to _____ FT.
 13. The second step in preparing the signal for launching is to move the _____ screw into the safety slot.
 14. The protective tab should be bent _____ from the signal.
 15. The signal should be mated to projector and rotated _____ until the signal is seated.
 16. When firing, the arm should be extended _____.
 17. Spent signals or misfires should be _____ overboard.
 18. The Distress Signal Light emits a high _____ visual distress signal visible for great distances.
 19. The light is intended to omit approximately ____ - ____ flashes per minute.
 20. If the light, with a new battery, does not operate within limits, _____ the light from service.
-



TASK BCM-02-13-ANY: Don the Boat Crew Survival Vest

1. The Type III PFD is normally worn when the water temperature is greater than _____ ° F.
 2. The Type III PFD has a minimum of _____ lbs of buoyancy.
 3. The flotation characteristics of the anti-exposure coveralls is similar to those of a Type _____ PFD.
 4. The anti-exposure coveralls have an orally inflated _____ for better flotation angle.
 5. True or False. The anti-exposure coveralls are the same as a dry suit.
 6. True or False. The Boat Crew Survival Vest should only be worn under a PFD.
-

TASK BCM-02-14-ANY: Don the Inflatable PFD

1. The inflatable type PFD uses _____ as the inflating agent.
 2. True or False. The inflatable type PFD should be inflated before entering the water.
 3. The inflatable type PFD will probably have a _____ and _____ attached to it.
 4. To maintain the buoyancy of the inflatable PFD, an _____ tube is provided.
-

TASK BCM-02-15-TYPE: Explain the Manual Deployment and Boarding Procedures for the Rescue and Survival Raft

1. The raft may be inflated either _____ or automatically.
 2. The raft may be inflated manually by completely pulling the _____ line from the raft container.
 3. The raft should be considered as a means of _____ persons stranded in areas where a boat cannot go.
 4. If practical, the raft should be _____ directly from the boat - avoid entering the _____.
 5. After boarding the raft, you should try to remain in the same general area as the _____.
 6. Food and water should be _____.
-



TASK BCM-02-16-TYPE: List Survival Procedures in Event of Boat Capsize

1. While capsizing, personnel should _____ something sturdy.
 2. If trapped in or under a boat, personnel should seek out an _____ near the _____.
 3. Before attempting to escape, an inventory should be made of all _____ that might be taken along.
 4. Because air will eventually leak or run out, every effort should be made to _____.
 5. Sometimes it is necessary to _____ your PFD in order to exit. If necessary, it should be attached to a _____ so it can be _____ after exiting.
 6. If the engines are still running, you should _____ the stern.
 7. When trapped in an open cockpit, you should exit by swimming _____ the gunwales and _____ alongside the boat.
 8. If trapped in an enclosed cabin, you must remember that all exits are _____ when the boat capsizes.
 9. If line is available, the _____ swimmer should exit first taking an end of the line with him/her.
 10. If no line is available, the _____ swimmer should go out first, followed by the _____ swimmers, and lastly by a _____ swimmer.
 11. When free, the first swimmer out should contact the people inside by _____.
-

TASK BCM-02-17-ANY: Open Water Survival Skills

1. State the four types of hypothermia clothing used by the Coast Guard.
 - a.
 - b.
 - c.
 - d.
 2. _____ clothing robs the body of heat by breaking down the thermal protection of insulated clothing.
 3. If a dry suit is worn, Boat Crew Members must wear a _____ at all times.
 4. The anti-exposure coveralls are Type _____ PFD.
 5. True or False. If possible, board the life raft from the sinking boat to avoid entering the water.
 6. The length of time a person can stay alive in cold water depends on three factors. What are these three factors?
 7. True or False. It is best to climb on an overturned boat hull from the windward side.
 8. If a Coast Guard boat is greater than _____ FT, it will normally carry a survival raft.
 9. If trapped under an inverted boat, seek out an _____ near the top.
 10. True or False. When swimming out from under an inverted boat, a PFD should be worn at all times.
-



TASK BCM-02-18-ANY: Perform Water Survival Exercise

1. The bright light spot on the signal mirror is used to _____ the mirror.
 2. Where can directions for use of the signal mirror be easily found?
 3. The use of a whistle is especially helpful to rescuers during periods of _____.
 4. A signal whistle's audible sound may be heard up to _____ yards.
 5. The MK-124 day/night pyrotechnic device produces _____ colored smoke for daytime conditions and _____ colored flare as a night signal.
 6. Each end of the MK-124 will burn for about _____ seconds.
 7. In the dark, the night end of the MK-124 is identifiable by _____ on the night end.
 8. Each MK-79 signal kit contains _____ cartridge type aerial flares and _____ pencil type projector.
 9. The aerial flares in the MK-79 signal kit can attain an altitude of _____ to _____ FT and remain illuminated for about _____ seconds.
 10. The distress signal light is designed to emit about _____ flashes per minute and is capable of flashing _____ hours if used continuously.
 11. Define the acronym HELP in regards to water survival.
 12. True or False. Swimming in cold water will warm you up and increase your chances for survival.
-



Section C. Reading Assignments

Introduction

The reading assignment(s) should be read prior to beginning instruction of each task.

In this section

This section contains the following reading assignments:

Task Number	Task Title	Reading Assignment	See Page
BCM-03-01-ANY	State Common Boat Nomenclature and Terminology	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-91
BCM-03-02-TYPE	Locate and Identify the Purpose of the Equipment Aboard the Boat	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-91
BCM-03-03-TYPE	Boat Characteristics – Boat Construction	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-92
BCM-03-04-TYPE	Boat Characteristics – Watertight Integrity	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-92
BCM-03-05-TYPE	Stability	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-93
BCM-03-06-ANY	Identify the Different Parts of a Line and Hitches Used in Line Handling	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-93
BCM-03-07-ANY	Tie Various Knots, Hitches and Bends	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-93
BCM-03-08-ANY	Secure Lines to Cleats, Bitts and Posts	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-93



TASK BCM-03-01-ANY: State Common Boat Nomenclature and Terminology

1. The front end of the boat is the _____.
 2. When proceeding toward the bow, you are going _____.
 3. The right side of the bow is the _____ bow.
 4. The central or middle area of the boat is _____.
 5. The left center side of the boat is the _____.
 6. The rear of the boat is the _____.
 7. The left rear section of the boat is the port _____.
 8. A line running from one side of the boat to the other is said to be _____.
 9. From the center line toward either side is referred to as _____.
 10. From either side toward the centerline is called _____.
 11. The side of the boat against a dock is also called _____.
 12. If you go down inside the boat, you are going _____.
 13. If you are up into the rigging of the boat, you are going _____.
-

TASK BCM-03-02-TYPE: Locate and Identify the Purpose of the Equipment Aboard the Boat

1. A _____ is used to allow the anchor line to spin freely.
 2. 75 FT and 100 FT _____ are used for passing the towline when maneuverability is restricted.
 3. A _____ is used to attach a towline to a trailer eyebolt on boats.
 4. When securing chafing gear to a line, you should use _____.
 5. Ring _____ are used during man overboard emergencies.
-



TASK BCM-03-03-TYPE: Boat Characteristics – Boat Construction

1. The three basic types of hull forms based on boat speed are _____, _____, and semi-displacement.
 2. A displacement hull boat pushes away (displaces) water allowing the _____ to _____ into the water.
 3. Heavy displacement hulls cannot exceed a speed of _____ times the _____ of their waterline length without requiring excessive power.
 4. Once “on top,” the _____ skims along the _____ of the water, whereas the displacement hull always forces water around it.
 5. The semi-displacement hull is a combination of characteristics of the _____ hull and the _____ hull. Many _____ boats are this type.
 6. The _____ is the backbone of the boat.
 7. _____ are attached to the keel, which extend athwartships. The _____ of the boat is attached to the frames.
 8. _____ controls the direction of the boat and may vary widely in size, design, and method of construction.
 9. The three rudder types are _____, _____, and _____.
 10. _____ is the distance a propeller advances in _____ revolution with no slip.
 11. _____ frames provide hull strength along the _____ of the hull.
 12. A _____ is a seagoing floor and provides strength to the _____ by reinforcing the transverse _____ and deck beams.
 13. If decks are seagoing floors, then hatches are seagoing _____.
 14. _____ are small openings.
 15. Watertight doors are designed to resist as much _____ as the _____ through which they provide access.
-

TASK BCM-03-04-TYPE: Boat Characteristics – Watertight Integrity

1. _____ doors are designed to resist as much pressure as the bulkheads through which they provide access.
 2. If _____ are seagoing floors, then _____ are seagoing doors.
 3. Watertight closures must have clean, bright, unpainted, smooth _____ for gaskets to press against.
 4. Scuttles must be secured for _____ at all times except when they are open for inspection, cleaning, or painting.
 5. The interior of a boat is compartmentalized into bulkheads, decks, and hatches. The hatches are actually “doors” though the bulkheads. With the hatches closed, the space between them becomes watertight and is called a _____.
-



TASK BCM-03-05-TYPE: Stability

1. The tendency to remain upright is its (the boat's) _____.
 2. _____ and _____ are the two primary forces acting upon a floating boat that affect stability.
 3. The _____ is the point at which the weight of the boat acts vertically downwards.
 4. The _____ is the upward force of water displaced by the hull.
 5. When a boat is at rest, the center of buoyancy acting upward/vertically is below the center of gravity acting downwards. A boat is considered to be in _____.
 6. A boat has two principal types of stability: _____ and _____.
 7. The two principal forces that affect stability are _____ and _____ forces.
 8. General boat design features that influence stability include:
 - a. _____
 - b. _____
-

TASK BCM-03-06-ANY: Identify the Different Parts of a Line and Hitches Used in Line Handling

1. The running or free end of a line is called the _____.
 2. The long, unused or belayed end is called the _____.
 3. An overhang loop is made by crossing the _____ over the standing part.
 4. A bight is a _____ formed by turning the line back on itself.
 5. A _____ is a single turn and a _____ is two complete turns around an object.
-

TASK BCM-03-07-ANY: Tie Various Knots, Hitches and Bends

1. The advantage of a bowline is that it does not _____.
 2. The best all-around hitch for securing a line to a ring, spar, or other round or near round object is the _____.
 3. Timber hitches are used to secure a line to logs, planks, or other _____ objects.
 4. _____ are used to lengthen one line by bending one to another.
-

TASK BCM-03-08-ANY: Secure Lines to Cleats, Bitts and Posts

1. Deck fittings permit easy handling of lines and reduce _____ and friction on lines.
 2. When securing a line to a cleat, bitt, or post, you should first take a _____ around the deck fitting.
 3. You should finish securing the line by forming several figure _____ and securing them with a half _____ over each horn.
 4. To facilitate speed and safety, the dipping the _____ method should be used when two mooring lines have to be placed on the same cleat.
-



Section D. Reading Assignments

Introduction

The reading assignment(s) should be read prior to beginning instruction of each task.

In this section

This section contains the following reading assignments:

Task Number	Task Title	Reading Assignment	See Page
BCM-04-01-ANY	Rig Fenders to Side of the Boat	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-95
BCM-04-02-TYPE	Make Fast a Boat to a Pier	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) <i>Chapman Piloting</i>, 61st edition, Pages 200-201 	2-95
BCM-04-03-TYPE	Assist in Anchoring the Boat	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-95
BCM-04-04-TYPE	Assist in Weighing the Boat's Anchor	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-95
BCM-04-05-ANY	Identify the Common Navigation Lights Displayed by Ships and Boats	<ul style="list-style-type: none"> <i>Chapman Piloting</i>, 61st Edition <i>Navigation Rules International-Inland</i>, COMDTINST M16672.2 (series) 	2-96
BCM-04-06-ANY	Identify the Common Sound Signals Used by Ships and Boats	<ul style="list-style-type: none"> <i>Chapman Piloting</i>, 61st Edition <i>Navigation Rules International-Inland</i>, COMDTINST M16672.2 (series) 	2-96
BCM-04-07-ANY	Identify and Describe Accepted Maritime Distress Signals	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) <i>Navigation Rules International-Inland</i>, COMDTINST M16672.2 (series) 	2-97
BCM-04-08-ANY	Stand a Lookout Watch	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) <i>Navigation Rules International-Inland</i>, COMDTINST M16672.2 (series) 	2-97
BCM-04-09-ANY	Act as a Helmsman and Steer a Compass Course	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-97
BCM-04-10-TYPE	Get the Boat Away From a Pier	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) <i>Chapman Piloting</i>, 61st Edition, Page 207 	2-98
BCM-04-11-TYPE	Moor the Boat	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-98
BCM-04-12-TYPE	Boat Handling	<ul style="list-style-type: none"> <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-99



TASK BCM-04-01-ANY: Rig Fenders to Side of the Boat

1. When docking or taking another boat alongside, you should always rig fenders to prevent _____ damage.
 2. Fenders should be adjusted to cushion points of _____.
 3. Fenders should be secured using a _____ or _____.
 4. Fenders should be secured to a stanchion, _____, bitt or cleat.
-

TASK BCM-04-02-TYPE: Make Fast a Boat to a Pier

1. All fenders should be rigged and _____ should be broken out and ready before reaching the dock.
 2. The _____ of the mooring line should be secured to the dock before the bitter end is fixed to the boat cleat.
 3. Normally the after _____ spring line is secured first.
 4. The order in which the lines are attached depends on the _____ evaluation of the situation.
-

TASK BCM-04-03-TYPE: Assist in Anchoring the Boat

1. Most Coast Guard boats use a _____ type anchor.
 2. The _____ of the anchor are the parts that dig into the bottom to provide holding power.
 3. The anchor line, or chafing chain, is secured to the _____.
 4. A _____ is used to attach the chain so that the anchor line can spin freely.
 5. Never stand in the _____ of an anchor line.
 6. The anchor line should be tended directly from the _____ locker if possible.
 7. The anchor line should always form an angle of _____ or less with the bottom.
-

TASK BCM-04-04-TYPE: Assist in Weighing the Boat's Anchor

1. Slack in the anchor line should be _____ as the boat is moved ahead.
 2. As the line is brought aboard, it should be faked on deck or stowed below _____.
 3. If the anchor refuses to break free, the line should be _____ around the forward bitt while the Coxswain moves ahead a few feet to break it free.
-



TASK BCM-04-05-ANY: Identify the Common Navigation Lights Displayed by Ships and Boats

1. The purpose of navigational lights is to _____ vessels of the presence or approach of another boat.
 2. Navigational lights also aid in determining the _____ of the boat.
 3. Lights must be used from _____ to _____ and in times of restricted visibility.
 4. A green sidelight means you are looking at a boat's _____ side.
 5. A red sidelight means you are looking at a boat's _____ side.
 6. If you see both a red and green sidelight, it means you are looking at the boat _____.
 7. A power-driven boat 50 meters or more in length must display red and _____ sidelights, a masthead light, a stern light, and a _____ light.
 8. A power-driven boat less than 50 meters in length must display red and _____ sidelights, a masthead light, and a _____ light.
 9. A power-driven boat less than 7 meters and whose maximum speed does not exceed 7 KTS only has to show an _____ light.
 10. Sailing vessels less than 12 meters (international) or 20 meters (inland) in length must display red and green sidelights, or a red and green _____ light, along with a stern light.
 11. On sailboats and rowboats less than 7 meters in length, if regular running lights are unavailable, they may display _____ or torch.
-

TASK BCM-04-06-ANY: Identify the Common Sound Signals Used by Ships and Boats

1. A short blast is about _____ second(s) in duration.
 2. A prolonged blast is from _____ to _____ seconds in duration.
 3. Vessels 12 meters in length or more must carry a _____ along with a whistle.
 4. If you hear a gong, you know the boat is at least _____ meters long.
 5. Vessels under 12 meters in length are required to _____.
 6. A power-driven boat underway in conditions of reduced visibility sounds _____.
 7. Sailing vessels during periods of reduced visibility sound _____.
 8. Bells and gongs are used by vessels that are _____.
-



TASK BCM-04-07-ANY: Identify and Describe Accepted Maritime Distress Signals

1. MAYDAY, MAYDAY, MAYDAY is the _____ priority of urgency call.
 2. A gun fired at intervals of about _____ minute(s) may be used as an emergency signal.
 3. Rockets, shells, or flares should be of a _____ color to indicate an emergency.
 4. A square flag above a _____ also can be a distress signal.
 5. Two _____ lights in a _____ line may be used to indicate that a boat is broken down.
 6. Slowly _____ and _____ outstretched arms indicates an emergency.
 7. The signal '··· - - - ···' means _____ and indicates an _____ situation.
-

TASK BCM-04-08-ANY: Stand a Lookout Watch

1. It is the lookout's job to report everything _____ or _____ to the boat Coxswain.
 2. When making reports, the lookout should first _____ the object and then give the direction in _____ to the object.
 3. Lookouts should always remain at their Station until _____.
 4. If a report to the Coxswain is not acknowledged, it should be _____.
 5. When looking for a person or object in the water, a _____ scanning technique should be used.
 6. Dark adaptation requires _____ or more, but may be destroyed in less than _____.
-

TASK BCM-04-09-ANY: Act as a Helmsman and Steer a Compass Course

1. The arc of the compass card is divided into _____ °.
 2. A reading of 000° on the compass card should point toward _____ North.
 3. The _____ is in line with the boat's centerline and indicates the boat's _____.
 4. To ensure understanding, the helmsman should always _____ all orders given to him/her by the Coxswain.
 5. The helmsman should attempt to maintain a course within _____ °.
 6. The helmsman should not execute any orders unless _____ by the Coxswain.
-



TASK BCM-04-10-TYPE: Get the Boat Away From a Pier

- Single-Screw Boats**
1. While leaving a pier, when in the clear, the Coxswain moves ahead and applies right or left rudder _____.
 2. The pivot point is normally _____ of the way aft of the bow.
 3. When clearing a pier, against a current, the Coxswain should go ahead slowly then put the rudder over toward the _____.
 4. When the stern is clear, the bow _____ should be cast off and the Coxswain should shift the rudder and back away.
- Twin-Screw Boats**
5. The screws are arranged so that the top of each blade moves _____.
 6. The starboard screw is right-handed and the port screw is _____-handed.
 7. With the starboard screw astern and the port screw stopped, the stern of the boat will move to _____.
 8. With the starboard screw ahead and the port screw astern, the boat will _____ in a leftward direction.
 9. When clearing a pier, port side to, against the wind or current, the Coxswain should go ahead on the _____ engine and astern on the _____ with full _____ rudder, until the stern clears.
-

TASK BCM-04-11-TYPE: Moor the Boat

- Single-Screw Boats**
1. When mooring port side to, with a wind or current from astern, the approach should be made using an approximately _____° angle.
 2. When mooring port side to, against the wind or current, the approach should be made on an angle, as the wind will tend to throw the _____ out.
 3. When mooring port side to, against the wind or current, after the bow spring line is secured, the Coxswain should use full _____ rudder and kick the engine _____.
 4. When mooring starboard side to, with no wind or current, the approach angle should be as _____ as possible.
- Twin-Screw Boats**
5. When mooring port side to, the approach should be made slowly at an approximately _____° angle.
 6. When mooring port side to, after securing the bow line, the Coxswain should apply _____ full rudder and go ahead on the _____ engine.
-



TASK BCM-04-12-TYPE: Boat Handling

Environmental Forces

1. The _____ acts on the hull, topsides, and, on smaller boats, the crew.
2. _____ affect the boat handling in various ways, depending on their height and direction and the particular boat's characteristics.
3. A one-knot _____ may affect a boat to the same degree as 30 KTS of wind. Strong _____ will easily move a boat upwind.

Vessel Generated Forces

4. When rotating to move in a forward direction, a _____ draws its supply of water from every direction forward of and around the blades.
 5. Regardless of whether the propeller is turning to go ahead or astern, the water flow pattern in the propeller's arc of rotation is called _____.
 6. In addition to the thrust along the shaft axis, another effect of propeller rotation is _____.
 7. The speed of the water flowing past the _____ greatly enhances the _____ force.
 8. When a hull moves forward through the water, the effective _____ moves forward.
 9. In single-screw vessels, propeller side force presents a major obstacle to _____ in the direction you want.
-



Section E. Reading Assignments

Introduction

The reading assignment(s) should be read prior to beginning instruction of each task.

In this section

This section contains the following reading assignments:

Task Number	Task Title	Reading Assignment	See Page
BCM-05-01-ANY	Operate a VHF-FM Radiotelephone	<ul style="list-style-type: none">• <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i>	2-101
BCM-05-02-ANY	Operate	<ul style="list-style-type: none">• <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i>• <i>Radio/Transceiver – Operator’s Manual</i>	2-101
BCM-05-03-ANY	Use the VHF-FM Radiotelephone to Give a Position or Operations Report	<ul style="list-style-type: none">• <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i>	2-101



TASK BCM-05-01-ANY: Operate a VHF-FM Radiotelephone

1. The effective range of the VHF-FM radio is up to _____ miles.
 2. The squelch control should be turned counterclockwise until just beyond the point where the _____ disappears.
 3. The CG VHF-FM radios will automatically monitor Channel _____.
 4. 156.65 MHz, Channel 13 is the boat _____ to _____ frequency.
 5. 156.8 MHz, Channel _____ is the international VHF-FM calling and distress frequency.
-

TASK BCM-05-02-ANY: Operate an Agency Radio

1. Agency boats carry an _____ radio as a _____ communications system.
 2. The noise limiter should be _____ as necessary to reduce _____ noise (static) while receiving.
 3. The international distress and calling frequency is _____ KHz.
 4. _____ is designated a _____ frequency, and used for multiple agencies to communications with them.
-

TASK BCM-05-03-ANY: Use the VHF-FM Radiotelephone to Give a Position or Operations Report

1. Every transmission should be ended with the words _____ or _____.
 2. Message should be sent _____ so that the receiving party will have a chance to copy the entire message.
 3. The microphone should not be _____ until you are ready to speak.
 4. Unofficial conversations should/should not be transmitted.
 5. Only _____ prowords or abbreviations should be used.
 6. The _____ alphabet is used to spell difficult words, which are hard to understand over a radio.
-



Section F. Reading Assignments

Introduction

The reading assignment(s) should be read prior to beginning instruction of each task.

In this section

This section contains the following reading assignments:

Task Number	Task Title	Reading Assignment	See Page
BCM-06-01-ANY	Identify the Symbols, Abbreviations and Basic Symbols of a Nautical Chart	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> • <i>Nautical Chart Symbols Abbreviations and Terms Chart No. 1</i> 	2-104
BCM-06-02-ANY	Identify Common Aids to Navigation Used for Inland and Coastal Piloting	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> • <i>Nautical Chart Symbols Abbreviations and Terms Chart No. 1</i> • <i>The American Practical Navigator</i> 	2-104
BCM-06-03-ANY	Identify Local Landmarks on a Nautical Chart	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> • <i>Nautical Chart Symbols Abbreviations and Terms Chart No. 1</i> 	2-104
BCM-06-04-ANY	Plot a Position Using Latitude and Longitude	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> • <i>The American Practical Navigator</i> 	2-105
BCM-06-05-ANY	Plot a Magnetic Course on a Nautical Chart	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> • <i>The American Practical Navigator</i> 	2-105
BCM-06-06-ANY	Measure Distance on a Nautical Chart	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> • <i>The American Practical Navigator</i> 	2-105
BCM-06-07-ANY	Compute Time, Speed, and Distance	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> • <i>The American Practical Navigator</i> 	2-105
BCM-06-08-ANY	Determine the Depth of Water Using a Fathometer/Depth Sounder	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> • <i>Fathometer Depth Sounder Operator's Handbook</i> 	2-105
BCM-06-09-TYPE	Use Radar to Identify Objects	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> • <i>The American Practical Navigator</i> • <i>Radar Operator's Handbook</i> 	2-106



Task Number	Task Title	Reading Assignment	See Page
BCM-06-10-TYPE	Determine the Range and Bearing to an Object Using Radar	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> • <i>The American Practical Navigator</i> • <i>Radar Operator's Handbook</i> 	2-106
BCM-06-11-TYPE	Use Radar to Obtain and Interpret Relative Bearings and Ranges to a Moving Target to Determine if Risk of Collision Exists	<ul style="list-style-type: none"> • <i>Knights Modern Seamanship; Eighteenth Edition, Pages 611-616</i> • <i>The American Practical Navigator</i> • <i>Radar Operator's Handbook</i> 	2-106
BCM-06-12-TYPE	Operate the VHF-FM Direction Finder and Steer on a Signal	<ul style="list-style-type: none"> • <i>Manufacturer's Operating Manual</i> 	2-107
BCM-06-13-TYPE	Obtain a Fix Using GPS/DGPS	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> • <i>The American Practical Navigator</i> 	2-107
BCM-06-14-TYPE	Plot a Position Using LORAN-C TDs	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> • <i>The American Practical Navigator</i> 	2-107
BCM-06-15-TYPE	Operate the Electronic Charting System	<ul style="list-style-type: none"> • None assigned 	



TASK BCM-06-01-ANY: Identify the Symbols, Abbreviations and Basic Symbols of a Nautical Chart

1. One degree is equal to _____ minutes.
 2. One minute of _____ is equal to 1 NM.
 3. _____ of latitude are normally indicated by lines running from side to side.
 4. Latitude scales are normally indicated along the _____ margins.
 5. The meridian that passes through Greenwich, England is designated as _____ (o).
 6. All meridians intersect at the _____.
 7. Charts are oriented with _____ at the top.
 8. Any location on a chart can be expressed in terms of _____ and _____.
 9. True direction is printed around the _____ of the compass rose.
 10. The sounding numbers show the water level at _____ tide.
 11. The scale of a chart is a ratio of a distance on the chart and the actual distance on the _____.
 12. A buoy's type is indicated by the _____ printed with it.
 13. The color of a buoy symbols print indicates the _____ of the buoy.
 14. The symbol for a lighthouse or other fixed light is a black _____ with a magenta _____.
 15. Ranges are indicated by the symbol for lights and a _____ indicating the direction.
 16. Day beacons are indicated by small _____.
 17. Coastlines are viewed at both _____ and _____ water.
-

TASK BCM-06-02-ANY: Identify Common Aids to Navigation Used for Inland and Coastal Piloting

1. When steering on a range, if the top and bottom marks are in line, it means you are _____ of the center of the channel.
 2. A cylindrical buoy that tapers to a blunt point at the top is called a _____ buoy.
 3. Channel buoys that are painted green should be taken on the _____ side of the boat when entering a harbor.
 4. Permanent navigation aids positioned the same as a buoy are _____ beacons.
 5. If the top stripe of an obstruction or junction buoy were red, it would indicate that it should be taken on the _____ side when leaving the harbor.
-

TASK BCM-06-03-ANY: Identify Local Landmarks on a Nautical Chart

1. Prominent landmarks such as towers, smoke stacks, and flagpoles are pinpointed by a standard symbol of a dot surrounded by a _____.
 2. All symbols and abbreviations found on a nautical chart are defined in _____.
 3. How are piers, jetties, and wharves displayed on a nautical chart?
-



TASK BCM-06-04-ANY: Plot a Position Using Latitude and Longitude

1. The lines are parallel to the Equator are known as _____.
 2. To measure latitude, put one point of a pair of dividers on the _____ nearest the object.
 3. To measure longitude, put one point of a pair of dividers on the _____ nearest the object.
 4. For latitude, use the _____ scale.
 5. For longitude, use the _____ scale.
-

TASK BCM-06-05-ANY: Plot a Magnetic Course on a Nautical Chart

1. Direction, generally referred to as a bearing, is measured in degrees _____ through _____.
 2. In boat navigation you will usually use _____ courses and bearings.
 3. When measuring magnetic direction using a parallel rule, place the rule so the edge passes through the _____ of the compass rose and the bearing number on the inner ring.
-

TASK BCM-06-06-ANY: Measure Distance on a Nautical Chart

1. In piloting, distance is measured in _____ or _____.
 2. The _____ mile is used for measurement on most navigable waters.
 3. One nautical mile is approximately _____ yards.
 4. Distance should be measured using the latitude scale _____ to the latitude where the distance is being measured.
 5. When the distance to be measured is greater than the span of the dividers, the dividers should be set at a given number of minutes and then used to _____ off the distance between the points to be measured.
-

TASK BCM-06-07-ANY: Compute Time, Speed, and Distance

1. In working time, distance, and speed problems when piloting a boat, the distance is always measured in _____ miles, the speed in _____, and the time in _____.
 2. Distance should be expressed to the nearest _____ of a nautical mile, speed to the nearest _____ of a knot, and time to the nearest _____.
 3. The nautical _____ was designed to solve time, distance, and speed problems.
 4. By setting any two of the values on their opposite scales, the third can be read from the appropriate _____.
-

TASK BCM-06-08-ANY: Determine the Depth of Water Using a Fathometer/Depth Sounder

1. Because the transducer for the fathometer depth sounder is normally mounted above the low point of the hull, the difference must be _____ from the reading in order for the reading to be accurate.
 2. Water depth is indicated by a _____ on the video screen per digital readout.
 3. The fathometer depth sounder is turned on by turning the _____ switch.
 4. The fathometer depth sounder can be set to measure either _____ or _____.
-



TASK BCM-06-09-TYPE: Use Radar to Identify Objects

1. Radar navigation depends on the operator's _____ with radar operation and knowledge of the _____ operating area.
 2. The advantages of radar are:
 - a. Can be used at night or periods of _____ visibility.
 - b. Fixes can be obtained _____.
 - c. Fixes are available at greater distances from _____ than from most other methods of piloting.
 3. The disadvantages of radar are:
 - a. It is subject to mechanical and _____ failure.
 - b. There are both _____ and _____ range limitations.
 - c. Charts do not always give information necessary for the _____ of radar echoes.
 4. The brilliance control should be set so that the sweep is barely _____.
 5. The _____ control adjusts the receiver for best reception.
 6. The _____ selects the operating range and marker interval.
 7. The plan position indicator indicates _____ bearing of a target and presents a _____ representation of the area around the boat.
 8. The center of the screen represents the position of your _____.
 9. Sandy spits, mud flats, and sandy beaches return the _____ and _____ echoes.
 10. Buoys with radar reflectors will appear _____ to their actual size.
-

TASK BCM-06-10-TYPE: Determine the Range and Bearing to an Object Using Radar

1. The bearing of a target is represented by the direction of its _____ from the center of the screen and the range is represented by its _____.
 2. Radar bearings are measured _____ the same as you would visual bearings.
 3. When reading bearings, the cursor line is placed over the target and the bearing is read where the cursor crosses the _____ ring.
 4. When obtaining target ranges, _____ must be used between rings.
 5. If the radar has a _____ range marker, the ranges can be read directly.
-

TASK BCM-06-11-TYPE: Use Radar to Obtain and Interpret Relative Bearings and Ranges to a Moving Target to Determine if Risk of Collision Exists

1. When two power-driven vessels are crossing so as to avoid risk of collision, the boat which has the other on her own _____ side shall keep out of the way and shall, if the circumstances of the case admit, avoid crossing _____ of the other boat.
 2. Unless otherwise agreed, when two power-driven vessels are meeting on _____ or nearly _____ courses so as to avoid risk of collision, each shall alter her course to starboard so that each shall pass on the _____ side of the other boat.
 3. Just as is true of a visual bearing, the radar bearing of an approaching boat that remains fairly _____ (with a decreasing _____), is indicative of a collision course and requires immediate and substantial action.
 4. Assumptions shall not be made on the basis of _____, especially scanty radar information.
-



TASK BCM-06-12-TYPE: Operate the VHF-FM Direction Finder and Steer on a Signal

1. The VHF-FM homer allows you to zero in on the _____ of FM radio signal you are receiving.
 2. The direction is shown on a _____ display screen.
 3. The source must continue to _____ as you track it.
 4. After tuning the set, the boat is swung in the direction of the pointer until it _____ itself.
 5. After centering, the boat's head should be swung _____° to be sure the source is ahead, not aft.
-

TASK BCM-06-13-TYPE: Obtain a Fix Using GPS/DGPS

1. GPS is a radio navigation system of _____ satellites operated by the _____.
 2. It is available _____ hours per day, _____, in all weather conditions.
 3. In a process called "_____", a GPS receiver on the boat uses the signal to determine the distance between it and the satellite.
 4. Once the receiver has computed the range for at least _____ satellites, it processes a three-dimensional position that is accurate to about _____ meters.
 5. GPS provides two levels of service - _____ (SPS) for civilian users, and _____ (PPS) for military users.
-

TASK BCM-06-14-TYPE: Plot a Position Using LORAN-C TDs

1. LORAN-C is used for precise _____ over long distance.
 2. LORAN-C can pinpoint a boat position within _____ of a mile almost anywhere in the world.
 3. You determine your position by matching the line figures displayed on the set to set of Loran _____ superimposed on a chart.
-



Section G. Reading Assignments

Introduction

The reading assignment(s) should be read prior to beginning instruction of each task.

In this section

This section contains the following reading assignments:

Task Number	Task Title	Reading Assignment	See Page
BCM-07-01-TYPE	Participate in a Man Overboard Evolution as a Pointer	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-110
BCM-07-02-TYPE	Participate in a Man Overboard Evolution as a Recovery/Pickup Person	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) • <i>U.S. Coast Guard Addendum to the United States National Search and Rescue Supplement (NSS) to the International Aeronautical and Maritime Search and Rescue Manual</i>, COMDTINST M16130.2 (series) 	2-110
BCM-07-03-ANY	Participate in a Man Overboard Evolution as a Surface Swimmer	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) • <i>U.S. Coast Guard Addendum to the United States National Search and Rescue Supplement (NSS) to the International Aeronautical and Maritime Search and Rescue Manual</i>, COMDTINST M16130.2 (series) • <i>Rescue and Survival Systems Manual</i>, COMDTINST M10470.10 (series) 	2-110
BCM-07-04-ANY	Stokes Litter	<ul style="list-style-type: none"> • None assigned 	
BCM-07-05-TYPE	Recover a Person-in-the-Water with the Stokes Litter	<ul style="list-style-type: none"> • <i>Rescue and Survival Systems Manual</i>, COMDTINST M10470.10 (series) 	
BCM-07-06-ANY	Helicopter Operations	<ul style="list-style-type: none"> • None assigned 	
BCM-07-07-TYPE	Conduct Helo-Ops	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-111
BCM-07-08-ANY	Fire the MK-127A1 Parachute Illumination Signal	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-111
BCM-07-09-ANY	Bend a Heaving Line to a Bridle and Pass the Heaving Line to Another Boat	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-112
BCM-07-10-TYPE	Pass a Towline to Another Boat	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-112
BCM-07-11-ANY	Connect a Towline to a Trailer Eyebolt Using a Shackle or Skiff Hook	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-112
BCM-07-12-TYPE	Secure an Alongside Tow	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual</i>, COMDTINST M16114.5 (series) 	2-112



Task Number	Task Title	Reading Assignment	See Page
BCM-07-13-ANY	Prepare Portable Pump for Operation, Start, and Obtain Suction	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> 	2-113
BCM-07-14-TYPE	Assist in Passing a Portable Pump Directly to Another Boat	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> 	2-113
BCM-07-15-TYPE	Rig and Operate an Eductor to Obtain Suction	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> 	2-113
BCM-07-16-ANY	Identify the Different Classes of Fires and State the Fuel Sources; State the Primary Extinguishing Agents for Each Class of Fire	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> 	
BCM-07-17-TYPE	Locate and Identify the Firefighting Equipment Carried Onboard the Boat	<ul style="list-style-type: none"> • None assigned 	2-114
BCM-07-18-ANY	Demonstrate Knowledge of the Operation of a CO ₂ Fire Extinguisher	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> 	2-114
BCM-07-19-ANY	Demonstrate Knowledge for the Operation of a Dry Chemical Fire Extinguisher	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> 	
BCM-07-20-TYPE	Assemble Equipment for the Boat's Main Firefighting System	<ul style="list-style-type: none"> • None assigned 	
BCM-07-21-TYPE	Engage the Boat's Main Fire Pump	<ul style="list-style-type: none"> • None assigned 	2-114
BCM-07-22-TYPE	Operate a Navy Vari-Nozzle	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> 	2-114
BCM-07-23-TYPE	Demonstrate Knowledge of the Procedures to Combat a Fire in the Engine Space	<ul style="list-style-type: none"> • <i>Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)</i> 	
BCM-07-24-TYPE	Demonstrate the Appropriate Response to the Basic Engineering Casualty Control Exercises (BECCE)	<ul style="list-style-type: none"> • None assigned 	



TASK BCM-07-01-TYPE: Participate in a Man Overboard Evolution as a Pointer

1. The first crew member to observe a person overboard should give the alarm by yelling “man _____” followed by either “_____ side” or “_____ side”.
 2. The pointer should _____ proceed to his/her _____ Station.
 3. The pointer will keep the victim in _____ and continuously _____ to the victim’s position.
-

TASK BCM-07-02-TYPE: Participate in a Man Overboard Evolution as a Recovery/Pickup Person

1. The recovery/pickup person prepares the _____ heaving line for casting to the victim.
 2. After the victim has been brought alongside the boat, the recovery/pickup person should _____ aboard.
-

TASK BCM-07-03-ANY: Participate in a Man Overboard Evolution as a Surface Swimmer

1. A rescue swimmer is designated when the man overboard is _____ or _____.
 2. The rescue swimmer must wear a _____ or wet _____, with a PFD, a swimmers _____, and a helmet.
-

TASK BCM-07-05-TYPE: Recover a Person-in-the-Water with the Stokes Litter

1. The stokes litter will float upright at a _____ angle with the feet submerged.
 2. The stokes litter is _____-righting.
 3. Five restraining straps and mesh netting are for patient restraint. The strap colors are _____, _____, _____, _____, and _____ with flotation pad.
 4. The _____ strap goes first, under the patient’s arms and over the chest.
 5. Secure the remaining restraint around the patient working from _____ to _____.
 6. The litter may be a _____ one-piece or _____ two-piece design.
-



TASK BCM-07-07-TYPE: Conduct Helo-Ops

1. Emergency exits on USCG helicopters are marked with _____ and _____ lettering.
2. There are _____ emergency exits on the HH-60J .
3. The basket should be _____ before being touched by any crew member.
4. Trail line, basket slings, or hoisting cables should never be _____ to the boat during the operation.
5. The hoisting cable and trail lines should be _____ at all times.
6. During breakaway procedures, the crew member is responsible for _____ the litter or basket, _____ line, and loose cable over the side.

TASK BCM-07-08-ANY: Fire the MK-127A1 Parachute Illumination Signal

1. Upon ignition, the MK-127A1 produces a _____ star.
2. The MK-127A1 can climb to an altitude of _____ to _____ FT.
3. The flare will provide illumination for approximately _____ seconds.

TASK BCM-07-09-ANY: Bend a Heaving Line to a Bridle and Pass the Heaving Line to Another Boat

1. A minimum of _____ turns of towline should always be kept on the reel.
 2. For offshore work, it is recommended that a minimum of _____ FT of towline be carried.
 3. You cannot tow beyond the design characteristics of any towing boat simply by _____ the line size.
 4. Thimbles are used to _____ load on the eye and provide maximum protection to the inner top of the eye from abrasion and wear.
 5. The towline should be inspected frequently for damage resulting from cutting, _____, fusing, and snagging.
 6. A towing bridle should be used in cases where a _____ attachment point is not available on the boat to be towed.
 7. The message line is simply a length of light line, which can be _____, propelled, or floated further than the tow line.
 8. Having the _____ working with the heaving line increases the range.
 9. The heaving line should be _____ to make it more flexible and less susceptible to becoming tangled.
-



TASK BCM-07-10-TYPE: Pass a Towline to Another Boat

1. Where conditions permit and the towing boat can maneuver enough, the towline should be passed _____ to one of the people on the other boat.
 2. Before attaching the towline, make certain the fitting attachment it is to be attached to is _____ to the deck with through bolts and backing plates.
 3. When attaching to tow bow cleats or bitts, a _____ should be used.
 4. Single leg bridles are generally used in towing _____.
-

TASK BCM-07-11-ANY: Connect a Towline to a Trailer Eyebolt Using a Shackle or Skiff Hook

1. The trailer eyebolt is normally located on the _____.
 2. Skiff hook assemblies breaking strength should be _____ or greater than the breaking strength of the towline.
 3. Connecting the towline with a shackle should only be done in _____ or moderate weather conditions.
 4. After tightening the shackle _____, it should be moused.
-

TASK BCM-07-12-TYPE: Secure an Alongside Tow

1. When taking a boat alongside, the _____ takes the strain of forward movement.
 2. When taking a boat alongside, the _____ takes the strain of backing down.
 3. Always rig _____ to prevent hull damage.
 4. When shortening the tow, you should _____ in the slack from the towline to bring the disabled boat alongside.
 5. When securing the boat alongside, you should lead the _____ forward to use as the bow line.
-

TASK BCM-07-13-ANY: Prepare Portable Pump for Operation, Start, and Obtain Suction

1. Pull the handle to release a _____ on the storage container.
 2. Connect a discharge hose and lay it out on deck so there are no _____ or _____.
 3. A pump can run dry for _____, but it was designed to be started only after suction has been taken.
 4. The engine will run approximately _____ hours on one tank of fuel, depending on conditions.
 5. A pump watch must be alert for _____ around the strainer and must ensure the strainer remains _____. Watch for _____.
-



TASK BCM-07-14-TYPE: Assist in Passing a Portable Pump Directly to Another Boat

1. The bridle should be attached to the _____ container handles.
 2. A _____ line should be rigged to control the movement of the pump after the pump is in the water.
 3. After passing the heaving line, the _____ is lowered over the side and the people on the other boat are directed to _____ in on the line.
-

TASK BCM-07-15-TYPE: Rig and Operate an Eductor to Obtain Suction

1. Dewatering, using an eductor, is performed when weather conditions permit your boat to _____ the disabled boat safely.
 2. After rigging, the eductor is _____ in the flooded area.
 3. Vacuum or _____ pulls the water up through the suction hose and out the discharge hose.
-

TASK BCM-07-16-ANY: Identify the Different Classes of Fires and State the Fuel Sources; State the Primary Extinguishing Agents for Each Class of Fire

1. Fire is a chemical _____ known as combustion.
 2. The four elements of a fire are oxygen, heat, _____, and _____ chain reaction.
 3. Fires fueled by common combustible materials, such as wood, cloth, or paper, are classified as Class _____ fires. The best extinguishing agent for this class fire is _____.
 4. Fires fueled by flammable or combustible liquids, flammable gases, or similar material are classified as Class _____ fires. The primary extinguishing agent for this class fire is _____.
 5. Fires involving combustible _____, with fuel sources such as sodium, potassium, or magnesium, are classified as Class _____ Fires. Given that these type fires are not easily extinguished, the best agents to use for control of the fire are _____ or _____.
 6. Fires involving energized _____ equipment, such as conductors or appliances, are classified as Class _____ fires.
 7. The principle remedy for these type fires is to secure the _____ and to apply _____ to the fire.
-



TASK BCM-07-18-ANY: Demonstrate Knowledge of the Operation of a CO₂ Fire Extinguisher

1. The standard CO₂ fire extinguisher used on Coast Guard boats is the _____ pound.
 2. The range of the extinguisher is approximately _____ FT.
 3. The CO₂ is released in the form of a fine white _____.
 4. Be careful not to let the extinguisher's discharge touch your _____.
 5. When using the extinguisher, the cylinder should be kept _____.
-

TASK BCM-07-19-ANY: Demonstrate Knowledge for the Operation of a Dry Chemical Fire Extinguisher

1. The effective range for a dry chemical fire extinguisher is _____ FT.
 2. When using dry chemical approach the fire from the _____ side of the fire.
 3. The dry chemical should be pointed at the _____ of the fire and use a _____ motion.
-

TASK BCM-07-22-TYPE: Operate a Navy Vari-Nozzle

1. Straight stream is employed when _____ and penetrating power are critical.
 2. Wide-angle fog can cool a much _____ surface than a steady stream.
 3. The vari-nozzle has _____ different positions.
 4. When the handle is forward the nozzle is in the _____ position.
 5. To change patterns you _____ the black tip.
 6. When the handle is back, the nozzle is in the _____ position.
-

TASK BCM-07-23-TYPE: Demonstrate Knowledge of the Procedures to Combat a Fire in the Engine Space

1. The first thing to do in the case of an engine space fire is to secure the _____(s).
 2. Some of the causes of engine space fires are electrical, _____ line leaks and lube oil line leaks.
 3. The quickest, most likely way to attack an engine space fire is with CO₂ and _____ extinguishers.
 4. After all fire extinguishers have been expended, and if possible, the _____ supply to the space should be secured.
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