



Boat Crew Qualification Handbook, Volume 4 – Ice Rescue *“Train, Maintain, Operate”*



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BOAT CREW QUALIFICATION HANDBOOK, VOLUME 4 – ICE RESCUE – BQH 16115.4

Subj: BOAT CREW QUALIFICATION HANDBOOK, VOLUME 4 – ICE RESCUE

1. PURPOSE. This Handbook provides standardized performance objectives and guidance for the purpose of training and certifying personnel as crewmembers on Coast Guard boats.
2. DIRECTIVES AFFECTED. U.S. Coast Guard Boat Operations and Training (BOAT) Manual, Volume I, COMDTINST M16114.32E, and U.S. Coast Guard Boat Operations and Training (BOAT) Manual, Volume II, COMDTINST M16114.33D, have been reorganized.
3. DISCUSSION. This Handbook provides guidance on how to engage in safe and effective boat operations.
4. MAJOR CHANGES. No major changes.
5. DISCLAIMER. This guidance is not a substitute for applicable legal requirements, nor is it itself a rule. It is intended to provide operational guidance for Coast Guard personnel and is not intended to nor does it impose legally-binding requirements on any party outside the Coast Guard.
6. IMPACT ASSESSMENT. No impact assessment warranted.
7. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS.
 - a. The development of this Handbook and the general guidance contained within it have been thoroughly reviewed by the originating office in conjunction with the Office of Environmental Management, and are categorically excluded (CE) under current USCG CE #33 from further environmental analysis, in accordance with Section 2.B.2. and Figure 2-1 of the National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts, COMDTINST M16475.1 (series). Because this Handbook contains guidance documents that implement, without substantive change, the applicable Commandant Instruction and other guidance documents, Coast Guard categorical exclusion #33 is appropriate.
 - b. This Handbook will not have any of the following: significant cumulative impacts on the human environment; substantial controversy or substantial change to existing environmental conditions; or inconsistencies with any Federal, State, or local laws or administrative

determinations relating to the environment. All future specific actions resulting from the general guidance in this Handbook shall be individually evaluated for compliance with the National Environmental Policy Act (NEPA), Department of Homeland Security (DHS) and Coast Guard NEPA policy, and compliance with all other environmental mandates.

7. DISTRIBUTION. No paper distribution will be made of this Handbook. An electronic version will be located on the Office of Boat Forces (CG-731) Portal site:
<https://cg.portal.uscg.mil/units/cg731/SitePages/Manuals.aspx>.
8. FORMS/ REPORTS. None
9. REQUESTS FOR CHANGES. To recommend edits and changes to this Handbook, please submit a formal request at the following link:
<https://cg.portal.uscg.mil/communities/bfco/doctrine/SitePages/Home.aspx>.

J. BRIAN RUSH
U.S. Coast Guard
Chief, Office of Boat Forces

Record of Changes

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PART 1

Introduction to CG Boat Crew Qualification System

In this Part This Part contains the following Chapters:

Chapter	Title	See Page
1	How to Use this Handbook	1-2
2	Boat Crew Qualifications	1-3
3	Qualification System Structure	1-4
4	Task Designations	1-5
5	Overview of Qualification Tasks	1-6
6	Instructor Guidance	1-9
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Instructors Instructors have several key responsibilities. They must:

- (01) Be proficient with all installed boat equipment and operational procedures. All instructors must ensure that their boat crew position certifications remain current.
- (02) Instruct in a way which maintains a high level of professionalism yet encourages each trainee toward challenges that the instructor understands to be within the trainee's grasp.
- (03) Completely execute the training qualification process described in this Part.



CHAPTER 1

How to Use this Handbook

References for this Chapter

Commandant directives and other official reference documents are listed here. References will be provided at the beginning of each Chapter.

Part Layout


The first page of each *Part* includes an *In this Part*, which lists each Chapter title.

In the left column of most pages are block titles, which provide descriptive words for the corresponding blocks of text to their right.


Warnings, Cautions, and Notes

The following definitions apply to “Warnings, Cautions, and Notes” found throughout the Handbook.


Warning

WARNING  Operating procedures or techniques that must be carefully followed to avoid personal injury or loss

Caution

CAUTION!  Operating procedures or techniques that must be carefully followed to avoid equipment damage.

Note

NOTE  An operating procedure or technique that is essential to emphasize.



CHAPTER 2

Boat Crew Qualifications

A.1. Qualification List

The *qualification Parts* are:

Qualification	Part
Ice Rescuer Qualification	PART 2
SKF-ICE Operator Qualification	PART 3
Air Boat Crew Member Qualification (AIRBCM)	PART 4
Air Boat Coxswain (AIRCOXN) Qualification	PART 5
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">NOTE </div> <div style="border: 1px solid black; padding: 5px; flex-grow: 1;"> Tactical and Pursuit Lvl IV qualification programs are contained in U.S. Coast Guard Boat Operations and Training (BOAT) Manual, Volume III, COMDTINST M16114.42 </div> </div>	

Table 1-1
Boat Crew Qualification Parts



CHAPTER 3

Qualification System Structure

A.1. Organization

Each *qualification part* is structured as follows:

Chapter	Title	Provides:
1	<i>Task Accomplishment Record</i>	The Instructor's task-level record of trainee's qualification progress. Contains <u>Instructor's initials</u> and <u>task completion date</u> signifying the trainee successfully performed the task in accordance with the prescribed standards.
2	<i>Qualification Tasks</i> This Chapter is sub-divided into lettered <i>sections</i> representing training <i>divisions</i> . (e.g. Section B. Physical Fitness, First Aid and Survival.)	The instructor's criterion-level record of trainee's qualification progress. Contains: (01) <u>Instructor's initials</u> and <u>completion date</u> , signifying the trainee successfully performed each criterion in accordance with the prescribed standards. (02) <u>Comments</u> . Circumstances or conditions which may affect task completion (including if task was attempted/ completed under more arduous conditions than those required) and failure to complete any performance criterion.
3	<i>Trainee Study Guide</i> This Chapter's sections match those found in Chapter 2.	Reading assignments and questions. Chapter 3 is to be removed and retained by the trainee.

Table 1-2
Qualification Part Structure

NOTE

Boat Crew Qualification Handbooks should be reproduced locally and provided to trainees.



CHAPTER 4

Task Designations

A.1. Task Designation Components

A task designation is comprised of three elements followed by the word “ANY” or “TYPE.” The three elements of a task designation are:

- (01) Qualification
- (02) Division Designation Number
- (03) Task Designation Number

Below are two examples:

A.2. Task Structure

A task designation is a combination of qualification, task sequence numbers and the word “ANY” or “TYPE.” Below are two examples:

BCM-01-01-ANY

BCM-07-05-TYPE

ANY: task can be accomplished on any boat, *provided the boat is capable of the task*. ANY tasks are considered transferable from boat to boat and, therefore, are to be completed only once.

TYPE: task must be done individually for each different boat type for which qualification is desired.

Task designation number. The task is a knowledge or skill objective to be performed.

Division designation number

Qualification (e.g. Boat Crew Member).

A.3. Task Completion Requirement

All tasks shall be completed unless specifically stated otherwise. When situations exist that preclude a member from completing a task, the task may be eligible for *deferment*, per *U.S. Coast Guard Boat Operations and Training (BOAT) Manual, Volume II*, COMDTINST M16114.33 (series).



CHAPTER 5

Overview of Qualification Tasks

A.1. Organization

Each task is organized into four components:

- (01) Reference(s)
- (02) Conditions
- (03) Standards
- (04) Performance Criteria

Locate the four components in the *sample task* shown below.

A.2. Sample Task

TASK ENG-01-33 TYPE

Identify the Breaker Panels

Reference

- a. 45 FT Response Boat-Medium (RB-M) Operator's Handbook, COMDTINST M16114.41 (series)

Conditions

Task should be performed at any time aboard any of the unit's standard boats without the use of reference or prompting.

Standards

Update per new RB-M tasks.

Performance Criteria	Completed (Initials)
Update per new RB-M tasks.	<u>IMU</u>
Update per new RB-M tasks.	<u>IMU</u>
Update per new RB-M tasks.	<u>IMU</u>

Instructor

BM1 I. M. UNDERWAY

Date

10DEC13

Comments



A.3. References *References* are the information sources which describe how to do the task.

A.4. Conditions *Conditions* are the environmental and physical circumstances under which the tasks must be performed. Any tools or special equipment needed for the completion of the task are listed here. The conditions listed with each task must be met. The following table describes task conditions and standards terms that are not contained in the stated references used in this Handbook:

Term	Definition	
Sea Conditions	Calm	Seas less than 4 FT
	Moderate	Seas 4 to 10 FT
	Heavy	Platform specific. See U.S. Coast Guard Boat Operations and Training (BOAT) Manual, Volume I, COMDTINST M16114.32 (series).
Wind Conditions	Calm	Less than 1 to 6 knots.
	Moderate	7 to 19 knots
	Heavy	20 knots and above.
Note: During qualification, the minimum sea conditions are just that, minimums. The qualification period should include demonstration of skills during wind and sea conditions appropriate for the area. <i>The unit CO/OIC should consider maximum weather limitations in conjunction with Commandant policies to ensure trainees gradually build confidence and platform proficiency.</i> The trainee must practice in varied conditions within the above ranges and not just the minimums prior to certification.		

Table 1-3
Wind and Sea Conditions Definitions



A.5. Standards *Standards* describe how well a task must be performed in order to be acceptable. Standards will often refer to *task criteria* to put steps into logical order for learning. Successful task completion is a function of how well a trainee is able to complete the task without assistance. Generally, the task performance standards are as follows:

Type	Requirement
Parameter	A specific standard must be met, e.g. “recover a man overboard within X minutes.” X is the parameter.
Knowledge	Recite, from memory, the required information. <i>Instructors may wish to ask questions concerning particular steps for accomplishment in order to measure the trainee’s total comprehension of the subject matter.</i>
Skill	Perform tasks without prompting or assistance from the instructor. (Prompting should not be confused with cueing. A cue is a signal, such as a word or action, used to initiate another step in a procedure, etc. Example: when the instructor announces “Man Overboard,” that is a cue, not a prompt.) Each task demonstration must follow the correct sequence with little or no hesitation between the steps for accomplishment.

Table 1-4
Task Performance Standards

A.6. Criteria *Criteria* are the specific learning items required for each task. Criteria work hand-in-hand with *Reading Assignments* to move the trainee from gaining knowledge (facts, concepts and principles) to demonstrating skills.



CHAPTER 6

Instructor Guidance

A.1. General Process

Tasks are meant to be learned through constant practice under the instructor's guidance and evaluation. The process normally proceeds as follows:

Initial Preparation
Provide Chapter 3 of the appropriate <i>qualification Part</i> (e.g. <i>Part 2, Boat Crew Member</i>) to trainee
Qualification Process:
Assign the task
Assign reading
Confirm the completion of the reading assignment
Demonstrate the task
Walk-through the task
Monitor performance
Evaluate performance
Sign-off the task
Maintain records
Certification Process:
Schedule Boat Crew Examination Board (BCEB) comprehensive examination
Schedule Practical assessment.
BCEB: recommend certification

Table 1-5
General Task Process

A.2. Provide Chapter 3

Remove *Chapter 3* from the appropriate Part and give it to the trainee to retain.

A.3. Assign Task

While *divisions* may at times be done concurrently, the tasks within each division should be accomplished in the order listed.

- (01) Tasks are based on the crew position and type of boat for which the trainee is being qualified. Where needed, *notes* specifying applicability may be found at the beginning of each task.
- (02) Tasks designated as TYPE are considered to be specific to each boat type. These must be completed individually for each desired boat type qualification.
- (03) Tasks designated as ANY are considered general in nature. Completion of these tasks on any boat type is sufficient for the qualification process and need not be repeated when qualification is desired on another boat type.



A.4. Assign Reading

Provide the trainee the reading assignments and study guide questions.

A.5. Confirm Knowledge

Review study guide questions for completeness and accuracy. Clarify any misunderstandings the trainee might have about the material.

Instructors should identify consistent problem areas for trainees, and forward recommendations for improvements via the chain of command.

A.6. Demonstrate Task

Demonstrate the steps required to complete the task. During the demonstration, the instructor should narrate the procedures, including problem solving (also known as “thinking out loud”).

A.7. Walk-Through Task

Walking a trainee through a procedure can take several forms and sessions. Walk-throughs typically begin with the trainee observing the instructor, while describing to the instructor the instructor’s actions and any problem solving. Next, the trainee performs the procedure for the instructor, including describing any problem solving. There is no limit to the number of times the instructor performs the walk-through, however, trainee understanding must be ensured before continuing.

Successive walk-throughs should be used to allow the trainee to master basic skills before attempting more complex skills.

A.8. Monitor Progress

Qualification does not end the first time a task is successfully completed; it ends when successful task completion can be met consistently, during operations and training.

A.9. Evaluate

Verify that the trainee’s performance meets the standard. This includes two parts:

- (01) The trainee must perform the task to established standards and conditions.
- (02) The trainee must perform the task with no assistance.

The trainee is expected to perform each task on a consistent basis in accordance with the established standards and conditions.

A.10. Sign-Off

The instructor signs the task at the bottom of the page when he/she is confident that the trainee can perform the task consistently, while unsupervised.

A.11. Records

Maintain records as follows:

Paper documentation: Transfer records to individual members following qualification entry in Abstract of Operations System (AOPS) / Training Management Tool (TMT). *It is the responsibility of the member to retain the original completed qualification tasks in his/her personal records.*

Electronic documentation: Make AOPS/TMT entries as each task is completed and/or when all qualification tasks are complete.



A.12. Changes to Qualification Requirement	If qualification requirements change due to issuance of a new Handbook or change to a Handbook, then a qualified boat crewmember is grandfathered, unless specifically stated otherwise. A member may only be grandfathered if the member was previously qualified or had started the qualification process prior to the effective date of the new Handbook or change.
A.13. Comprehensive Examination and Practical Assessment	<p>Inform the unit CO/OIC when all qualification tasks are completed. When the trainee has completed all of the required tasks for the position and boat type, the qualification process is complete.</p> <p>The instructor should inform the Boat Crew Examination Board and schedule the trainee for a comprehensive examination and practical assessment.</p>
A.14. Recommend Certification	When the Boat Crew Examination Board is satisfied with the trainee's performance and abilities, they may recommend to the unit CO/OIC that the trainee be certified.



CHAPTER 7

Trainee Guidance

A.1. Introduction

This guidance is written to you, the trainee. *What* you learn during qualification, as well as *how well* you learn, will impact your future, as well as those who follow you. Taking the time to thoroughly learn the qualification knowledge and skills will prove invaluable when you advance to the role of instructor.

If you have not read the material in Chapters 1 through 5 of this Part, do so.

A.2. Qualification Learning Tips

The following tips will help you in your qualification process:

- (01) You will have many reading assignments. Always make sure that you are using up-to-date material. Commandant directives may be superseded by record message traffic.
 - (02) Always complete the written questions, and if an answer is found to be in error, correct it.
 - (03) If information must be recited from memory, practice reciting information out loud.
 - (04) Help improve training materials. Often trainees are in a position to spot inconsistencies in publications, procedures, etc. When this happens, work with your instructor to resolve any issues, and when needed, report recommendations up the chain of command.
-



PART 2

Ice Rescuer Qualification

Introduction

This Part contains a collection of tasks, which 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 Coast Guard Ice Rescuer.

In this Part

This Part contains the following chapters:

Chapter	Title	See Page
1	Task Accomplishment Record for Ice Rescuer	2-2
2	Ice Rescuer Qualification Tasks	2-4
3	Ice Rescuer Trainee Study Guide	2-16



CHAPTER 1

Task Accomplishment Record for Ice Rescuer

NOTE

Instructors shall use a copy of this form (for each trainee) to record accomplishment of tasks. Following task completion, task shall be recorded in AOPS/TMT.

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 TMT as required.

Task	Date Started	Date Completed	Instructor's Initials
BCM-01-01-ANY			
BCM -01-03-ANY			
BCM-02-01-ANY			
BCM-02-02-ANY			
BCM-02-03-ANY			
BCM-02-04-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-02-17-ANY			
BCM-02-18-ANY			
BCM-03-07-ANY			
BCM-05-01-ANY			
BCM-05-03-ANY			
BCM-06-13-ANY			

Part 2 – Ice Rescuer Qualification
Chapter 1 – Task Accomplishment Record for Ice Rescuer



Task	Date Started	Date Completed	Instructor's Initials
BCM-07-06-ANY			
BCM-07-08-ANY			
IR-03-01-ICE			
IR-03-02-ICE			
IR-03-03-ICE			
IR-03-04-ICE			
IR-06-01-ICE			
IR-06-02-ICE			
IR-06-03-ICE			
IR-06-04-ICE			
IR-06-05-ICE			
IR-06-06-ICE			
IR-06-08-ICE			
IR-06-09-ICE			
IR-06-10-ICE			



CHAPTER 2

Ice Rescuer Qualification Tasks

Introduction

The following are the instructions for this Chapter:

- (01) The purpose of this Chapter is to provide guidance on the trainee's progress through the qualification task
- (02) The instructor should present the tasks to the trainee in a logical order using the instructions provided in *Part 1*.
- (03) Tasks should be signed, dated, and placed in the trainee's training record/TMT 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	Ice Rescuer Qualification Tasks	2-5



Section A. Ice Rescuer Qualification Tasks

Introduction

The following are objectives of Division One:

- (01) **Don** the ice rescue dry suit and associated personal protective equipment.
- (02) **Identify** different ice formations and characteristics.
- (03) **Identify** and describe signs of weak ice.
- (04) **Locate** and identify the purpose of the equipment in the ice rescue kit.

In this Section


This Section contains the following tasks:

Task Number	Task	See Page
IR-03-01-ICE	Don the Ice Rescue Dry Suit and Associated Personal Protective Equipment	2-6
IR-03-02-ICE	Identify Different Ice Formations and Characteristics	2-7
IR-03-03-ICE	Identify and Describe Signs of Weak Ice	2-8
IR-03-04-ICE	Locate and Identify the Purpose of the Equipment in the Ice Rescue Kit	2-8



TASK IR-03-01-ICE: Don the Ice Rescue Dry Suit and Associated Personal Protective Equipment

Reference	a. <i>Rescue and Survival Systems Manual, COMDTINST M10470.10 (series)</i> b. <i>Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1</i>
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 ice rescue dry suit and associated personal protective equipment

Performance Criteria	Completed (Initials)
1. State the proper thermal protective layers to be worn under the ice rescue dry suit	_____
WARNING  <div style="border: 1px solid black; padding: 5px; display: inline-block;">Cotton undergarments other than personnel underwear are NOT authorized.</div>	_____
2. Demonstrate proper donning of the ice rescue dry suit and adjust for proper fit.	_____
3. Demonstrate proper donning of the neoprene hood.	_____
4. Demonstrate proper donning of ice cleats, lifeguard systems harness, helmet, neoprene gloves.	_____
5. State the requirements for when an ice rescue dry suit is to be worn.	_____
6. State the proper method for inspecting neck and wrist seals as well as general ice rescue suit condition. Describe proper methods for sizing neck and wrist seals. State problems that would make an ice rescue dry suit unserviceable.	_____
7. State requirements and proper methods for maintenance and stowage of the ice rescue dry suit.	_____

Instructor _____ **Date** _____

Comments



TASK IR-03-02-ICE: Identify Different Ice Formations and Characteristics

Reference a. *Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1*

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 must, without error, identify ice formations and characteristics.

Performance Criteria	Completed (Initials)
1. Identify and define the following: <ul style="list-style-type: none"> a. Frazil/ slush b. Brash c. Pancake d. Clear or plate e. Snow f. Layered g. Ice pack or fault h. Lead i. Polynya j. Floe k. Pack l. Windrow/ pressure ridge m. Ice rubble n. Candle 	

Instructor _____ **Date** _____

Comments _____



TASK IR-03-03-ICE: Identify and Describe Signs of Weak Ice

Reference a. *Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1*

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 must, without error, identify ice formations and characteristics.

Performance Criteria	Completed (Initials)
1. Identify and describe signs of weak ice. a. Elements of water chemistry b. Indicators of fluctuating water levels c. Signs of deterioration in ice d. Effects of air temperature(s) on ice e. Effects of wind on ice f. Effects of snow on ice g. Effects of currents on ice	

Date

Instructor _____
Comments _____

TASK IR-03-04-ICE: Locate and Identify the Purpose of the Equipment in the Ice Rescue Kit

Reference a. *Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1*

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 must, without error, identify the purpose of the equipment in the ice rescue kit.

Performance Criteria	Completed (Initials)
1. Identify each piece of ice rescue equipment.	

Instructor _____ **Date** _____
Comments _____



Section B. Ice Rescue Oriented Operations

Introduction

The following are objectives of Division Two:

- (01) **Demonstrate** techniques for transiting on ice.
- (02) **Demonstrate** procedures for setting up the MARSARS shuttle.
- (03) **Demonstrate** actions as a line tender.
- (04) **Explain** and **demonstrate** procedures for self-rescue, reach, and go techniques.
- (05) **Explain** and **demonstrate** victim transport procedures
- (06) **Prepare** the SKF-ICE for use.
- (05) **Perform** a rescue using the SKF-ICE.

In this Section

This Section contains the following tasks:

Task Number	Task	See Page
IR-06-01-ICE	Demonstrate Technique for Transiting on Ice.	2-10
IR-06-02-ICE	Demonstrate Procedures for Rigging a MARSARS Shuttle for Victim Retrieval.	2-10
IR-06-03-ICE	Demonstrate Actions as a Line Tender.	2-11
IR-06-04-ICE	Explain and Demonstrate Self -Rescue Techniques.	2-11
IR-06-05-ICE	Explain and Demonstrate a Reach Technique using the MARSARS Shuttle Board Forearm Sling.	2-12
IR-06-06-ICE	Explain and Demonstrate a rescue using the MARSARS Cold Water Rescue Sling.	2-12
IR-06-07-ICE	Explain and Demonstrate a rescue using the MARSARS Shuttle Board and Cold Water Rescue Sling.	2-13
IR-06-08-ICE	Explain and Demonstrate Victim Transport Procedures.	2-13
IR-06-09-ICE	Prepare the SKF-ICE for use.	2-14
IR-06-10-ICE	Perform a Rescue using the SKF-ICE.	2-15



Part 2 – Ice Rescuer Qualification
Chapter 2 – Ice Rescuer Qualification Tasks

TASK IR-06-01-ICE: Demonstrate Technique for Transiting on Ice

References	a. <i>Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1</i>
Conditions	Task should be performed on actual ice, available to the unit, day or night. Trainee must accomplish task without prompting or use of a reference.
Standards	In response to the instructor, the trainee must, demonstrate the proper methods for transiting on ice.

Performance Criteria	Completed (Initials)
1. Don ice rescue personal protective equipment (PPE).	_____
2. Demonstrate using spud bar or boat hook to check ice conditions.	_____
3. State difference in sound of strong and weak ice.	_____
4. Demonstrate using spud bar or boat hook to distribute weight evenly.	_____
5. Demonstrate safely transiting on ice using a low profile.	_____

Instructor _____ **Date** _____
Comments _____

TASK IR-06-02-ICE: Demonstrate Procedures for Rigging a MARSARS Shuttle for Victim Retrieval

References	a. <i>Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1</i>
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 must demonstrate the proper methods for rigging a MARSARS shuttle for ice rescue.

Performance Criteria	Completed (Initials)
1. MARSARS shuttle attached to tending line.	_____
2. Ice rescuer's harness attached to MARSARS shuttle.	_____
3. Victim hook properly adjusted.	_____

Instructor _____ **Date** _____
Comments _____



TASK IR-06-03-ICE: Demonstrate Actions as a Line Tender

References	a. <i>Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1</i>
Conditions	Task should be performed on actual ice, available to the unit, day or night. Trainee must accomplish task without prompting or use of a reference.
Standards	In response to the instructor, the trainee must demonstrate the proper methods as a line tender.

Performance Criteria	Completed (Initials)
1. Don ice rescue personal protective equipment (PPE).	_____
2. Attach MARSARS shuttle tether line to tending line.	_____
3. Tend line as ice rescuer and MARSARS shuttle proceed to victim.	_____
4. Retrieve victim and/or ice rescuer.	_____

Instructor _____ **Date** _____

Comments _____

TASK IR-06-04-ICE: Explain and Demonstrate Self Rescue Techniques

References	a. <i>Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1</i>
Conditions	Task should be performed on actual ice, available to the unit, day or night. Trainee must accomplish task without prompting or use of a reference
Standards	In response to the instructor, the trainee must demonstrate the proper methods for a self-help rescue.

Performance Criteria	Completed (Initials)
1. Explain self rescue techniques.	_____
2. Don proper ice rescue personal protective equipment (PPE)	_____
3. Enter water feet first.	_____
4. Without ice awls or ice staff, exit water and roll to stronger ice.	_____
5. Using ice awls, exit water and roll to stronger ice.	_____
6. Using ice staff, exit water and roll to stronger ice.	_____

Instructor _____ **Date** _____

Comments _____



TASK IR-06-05-ICE: Explain and Demonstrate a Reach Technique using the MARSARS Shuttle Board Forearm Sling

References	a. <i>Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1</i>
Conditions	Task should be performed on actual ice, available to the unit, day or night. Trainee must accomplish task without prompting or use of a reference
Standards	In response to the instructor, the trainee must demonstrate the proper methods for a reach technique.

Performance Criteria	Completed (Initials)
1. Explain reach technique (MARSARS Forearm Sling).	_____
2. Don proper ice rescue personal protective equipment (PPE).	_____
3. Properly transit ice.	_____
4. Make verbal contact with victim.	_____
5. Using MARSARS Forearm Sling, pull a simulated victim onto the ice.	_____

Instructor _____ **Date** _____

Comments _____

TASK IR-06-06-ICE: Explain and Demonstrate a rescue using the MARSARS Cold Water Rescue Sling

References	a. <i>Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1</i>
Conditions	Task should be performed at any time, on actual ice, available to the unit. Trainee must accomplish task without prompting or use of a reference.
Standards	In response to the instructor, the trainee must demonstrate the proper methods for a go technique.

Performance Criteria	Completed (Initials)
1. Explain proper go technique.	_____
2. Don proper ice rescue personal protective equipment (PPE)	_____
3. Properly transit ice.	_____
4. Make verbal contact with victim.	_____
5. Using the MARSARS Cold Water Rescue Sling, pull a simulated victim onto the ice.	_____

Instructor _____ **Date** _____

Comments _____



TASK IR-06-07-ICE: Explain and Demonstrate a rescue using the MARSARS Shuttle Board and Cold Water Rescue Sling

References	a. <i>Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1</i>
Conditions	Task should be performed at any time, on actual ice, available to the unit. Trainee must accomplish task without prompting or use of a reference.
Standards	In response to the instructor, the trainee must demonstrate the proper methods for a go technique.

Performance Criteria	Completed (Initials)
1. Explain proper go technique.	_____
2. Don proper ice rescue personal protective equipment (PPE)	_____
3. Properly transit ice.	_____
4. Make verbal contact with victim.	_____
5. Using the MARSARS Shuttle Board and Cold Water Rescue Sling, pull a simulated victim onto the ice.	_____

Instructor _____ **Date** _____

Comments _____

TASK IR-06-08-ICE: Explain and Demonstrate Victim Transport Procedures

References	a. <i>Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1</i>
Conditions	Task should be performed during both day and night, on actual ice, available to the unit. Trainee must accomplish task without prompting or use of a reference.
Standards	In response to the instructor, the trainee must demonstrate the proper methods for a go technique.

Performance Criteria	Completed (Initials)
1. Explain and demonstrate victim transport procedures.	_____

Instructor _____ **Date** _____

Comments _____



Part 2 – Ice Rescuer Qualification
Chapter 2 – Ice Rescuer Qualification Tasks

TASK IR-06-09-ICE: Prepare the SKF-ICE for use

References	a. <i>Ice Rescue Operations (IROPs) Tactics Techniques, and Procedures, CGTTP 3-50.1</i>
Conditions	Task should be performed during both day and night, on actual ice, available to the unit. Trainee must accomplish task without prompting or use of a reference.
Standards	In response to the instructor, the trainee must demonstrate the proper methods for inflating and deploying the SKF-ICE during an ice rescue exercise.

Performance Criteria	Completed (Initials)
1. Unfold SKF-ICE on Flat surface where nothing interferes with inflation process.	_____
2. Remove air fill valve caps and set air release poppet valves to the closed position.	_____
3. Attach the AFM to the three air fill valves.	_____
4. Attach AFM to the air source (Compressor or SCUBA tank).	_____
5. Inflate SKF-ICE to full capacity and replace valve covers.	_____
6. Transport SKF-ICE to launch site using approved techniques.	_____
7. Launch SKF-ICE.	_____

Instructor _____ **Date** _____

Comments _____



TASK IR-06-10-ICE: Perform a rescue using the SKF-ICE

References	a. <i>Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1</i>
Conditions	Task should be performed during both day and night, on actual ice, available to the unit. Trainee must accomplish task without prompting or use of a reference.
Standards	In response to the instructor, the trainee must demonstrate knowledge of the safety precautions of the SKF-ICE and safely perform a rescue using approved techniques.

Performance Criteria	Completed (Initials)
1. State operating parameters of the SKF-ICE.	_____
2. Properly configure tow strap.	_____
3. Connect SKF-ICE to tending line.	_____
4. Maneuver the SKF-ICE bow opening over “victim”.	_____
5. Rescuer places MARSARS sling over victim and resizes it.	_____
6. Rescuer connects rescue sling to safety harness.	_____
7. Rescuer uses legs for leverage, stands and falls backwards to extract victim from the ice.	_____
8. Rescuer signals “Heave Around”.	_____

Instructor _____ **Date** _____

Comments _____



CHAPTER 3

Ice Rescuer 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.

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 Assignments	2-17



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
IR-03-01-ICE	Don the Ice Rescue Dry Suit and Associated Personal Protective Equipment	<i>Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1</i>	N/A
IR-03-02-ICE	Identify Different Ice Formations and Characteristics	<i>Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1</i>	N/A
IR-03-03-ICE	Identify and Describe Signs of Weak Ice	<i>Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1</i>	N/A
IR-03-04-ICE	Locate and Identify the Purpose of the Equipment in the Ice Rescue Kit	<i>Ice Rescue Operations (IROPS) Tactics Techniques, and Procedures, CGTTP 3-50.1</i>	N/A
IR-06-01-ICE	Demonstrate Technique for Transiting on Ice.	<i>None Assigned</i>	N/A
IR-06-02-ICE	Demonstrate Procedures for Rigging a MARSARS Shuttle for Victim Retrieval.	<i>None Assigned</i>	N/A
IR-06-03-ICE	Demonstrate Actions as a Line Tender.	<i>None Assigned</i>	N/A
IR-06-04-ICE	Explain and Demonstrate Self - Rescue Techniques.	<i>None Assigned</i>	N/A
IR-06-05-ICE	Explain and Demonstrate a Reach Technique using the MARSARS Shuttle Board Forearm Sling.	<i>None Assigned</i>	N/A
IR-06-06-ICE	Explain and Demonstrate a rescue using the MARSARS Cold Water Rescue Sling	<i>None Assigned</i>	N/A
IR-06-07-ICE	Explain and Demonstrate a rescue using the MARSARS Shuttle Board and Cold Water Rescue Sling	<i>None Assigned</i>	N/A
IR-06-08-ICE	Explain and Demonstrate Victim Transport Procedures	<i>None Assigned</i>	N/A
IR-06-09-ICE	Prepare the SKF-ICE for use	<i>None Assigned</i>	N/A
IR-06-10-ICE	Perform a Rescue using the SKF-ICE	<i>None Assigned</i>	N/A



TASK IR-03-01-ICE: Don the Ice Rescue Dry Suit and Associated Personal Protective Equipment

1. The dry suit shall be worn 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 the dry suit at all times.
-

TASK IR-03-02-ICE: Identify Different Ice Formations and Characteristics

1. Windrows are caused by _____.
 2. Explain how “snow ice” is formed and describe its consistency and strength.
 3. What is “plate ice”?
 4. Describe the affect that snow cover has on ice formation.
 5. What is the temperature of the water immediately below the ice?
-

TASK IR-03-03-ICE: Identify and Describe Signs of Weak Ice

1. Areas of weak ice can be caused by (list 3 causes) _____, _____, and _____.
 2. When tapped by the shepherds crook or spud bar, weak ice will make a _____ sound.
-

TASK IR-03-04-ICE: Locate and Identify the Purpose of the Equipment in the Ice Rescue Kit

1. What is the breaking strength of the ice rescuer’s tending line?
 2. The Shepherds Crook is used for _____ and is considered part of the _____ technique.
 3. The Velcro strap on the cold water rescue sling is for _____.
 4. The MARSARS shuttle board is used to _____.
 5. The hook used to attach items to the tending line is called a _____.
 6. What is the purpose of the ice awls?
 7. Goggles are equipped with inter-changeable _____ lenses to protect the eyes from sunlight.
 8. True/False: The D-ring on the back of the harness is used to recover the Ice Rescuer in an emergency.
-



PART 3

SKF-ICE Operator Qualification

Introduction

This Part contains a collection of tasks, which 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 SKF-ICE Operator.

In this Part

This Part contains the following chapters:

Chapter	Title	See Page
1	Task Accomplishment Record for SKF-ICE Operator	3-2
2	SKF-ICE Operator Qualification Tasks	3-4
3	SKF-ICE Operator Trainee Study Guide	3-13



CHAPTER 1

Task Accomplishment Record for SKF-ICE Operator

NOTE

Instructors shall use a copy of this form (for each trainee) to record accomplishment of tasks. Following task completion, task shall be recorded in AOPS/TMT.

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 enter them as deferred tasks in AOPS/TMT.

Task	Date Started	Date Completed	Instructor's Initials
Ice Rescuer Qualified			
OP-02-01-SKFICE			
OP-02-02-SKFICE	Not currently assigned.		
OP-02-03-SKFICE			
OP-03-01-SKFICE	Not currently assigned.		
OP-03-02-SKFICE	Not currently assigned.		
OP-03-03-SKFICE	Not currently assigned.		
OP-03-04-SKFICE			
OP-03-05-SKFICE	Not currently assigned.		
OP-03-06-SKFICE			
OP-03-07-SKFICE	Not currently assigned.		
OP-03-08-SKFICE			
OP-03-09-SKFICE	Not currently assigned.		
OP-03-10-SKFICE	Not currently assigned.		
OP-03-11-SKFICE			
OP-03-12-SKFICE			

Part 3 – SKF-ICE Operator Qualification
Chapter 1 – Task Accomplishment Record for SKF-ICE Operator



Task	Date Started	Date Completed	Instructor's Initials
OP-03-13-SKFICE			
OP-07-01-SKFICE			



CHAPTER 2

SKF-ICE Operator Qualification Tasks

Introduction

The following are the instructions for this Chapter:

- (01) The purpose of this Chapter is to provide guidance on the trainee's progress through the qualification tasks.
- (02) The instructor should present the tasks to the trainee in a logical order using the instructions provided in *Part 1* of this Handbook.
- (03) Tasks should be signed, dated, and transferred into AOPS/TMT 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	SKF-ICE Construction, Equipment and Fittings	3-5
B	SKF-ICE Propulsion, Operating and Maneuvering	3-7
C	SKF-ICE Rescue and Assistance	3-11



Section A. SKF-ICE Construction, Equipment and Fittings

Introduction

The following are objectives of section A:

Demonstrate knowledge of the construction, equipment and fittings of the SKF-ICE.

In this Section

This Section contains the following tasks:

Task Number	Task	See Page
OP-02-01-SKFICE	State Basic Construction and Design Features of the SKF-ICE	3-6
OP-02-02-SKFICE	Not currently assigned.	
OP-02-03-SKFICE	Locate and State the Purpose of Deck Equipment and Fittings on the SKF-ICE	3-6



TASK OP-02-01-SKFICE: State Basic Construction and Design Features of the SKF-ICE

Reference	a. <i>Ninth District Ice Rescue Manual</i> b. <i>SKF-ICE Operator's Handbook</i>
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. State the type of material used to construct the SKF-ICE	_____
2. State the number and construction style of the inflatable chambers	_____
3. State the purpose of the up-turned bow and opening	_____

Instructor _____ **Date** _____
Comments _____

TASK OP-02-03-SKFICE: Locate and state the purpose of deck equipment and fittings on the SKF-ICE

Reference	a. <i>Ninth District Ice Rescue Manual</i> b. <i>SKF-ICE Operator's Handbook</i>
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. State the contents and purpose of each item in the SKF-ICE Outfit List	_____
2. State the purpose of the fittings attached to the SKF-ICE	_____
3. State the purpose of the optional motor mount and tow shield	_____

Instructor _____ **Date** _____
Comments _____



Section B. SKF-ICE Propulsion, Operating and Maneuvering

Introduction

The following are objectives of Section B:

- (01) State the characteristics and components of the propulsion system.
- (02) Perform a pre-start check of the outboard motor.
- (03) Perform a pre-underway check-off for the SKF-ICE
- (04) Launch, Operate and Maneuver the SKF-ICE
- (05) Secure the SKF-ICE after use.

In this Section

This Section contains the following tasks:

Task Number	Task	See Page
OP-03-01-SKFICE	Not currently assigned	
OP-03-02-SKFICE	Not currently assigned	
OP-03-03-SKFICE	Not currently assigned	
OP-03-04-SKFICE	Locate and State the Characteristics of the Components and Accessories of the Propulsion System	3-8
OP-03-05-SKFICE	Not currently assigned.	
OP-03-06-SKFICE	Conduct a Pre-Start Check-Off	3-8
OP-03-07-SKFICE	Not currently assigned	
OP-03-08-SKFICE	Conduct a Pre-Underway Check-Off	3-9
OP-03-09-SKFICE	Not currently assigned	
OP-03-10-SKFICE	Not currently assigned	
OP-03-11-SKFICE	Secure the SKF-ICE after Operations	3-10
OP-03-12-SKFICE	Deploy the SKF-ICE and Get Underway	3-10
OP-03-13-SKFICE	Maneuver the SKF-ICE in Tight Quarters	3-10



TASK OP-03-04-SKFICE: Locate and State the Characteristics of the Components and Accessories of the Propulsion System

Reference	a. <i>Ninth District Ice Rescue Manual</i> b. <i>SKF-ICE Operator's Handbook</i> c. <i>3.5hp Mercury Outboard Motor Owner's Manual</i>
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. Locate and state the characteristics of the fuel system and oil lubrication system.	_____
2. Locate and describe the function of the “stop” and “kill” switches.	_____
3. Locate and describe the operation of the choke and pull-start.	_____
4. Locate and describe the operation of the throttle and gear change lever.	_____

Instructor _____ **Date** _____
Comments _____

TASK OP-03-06-SKFICE: Conduct a Pre-Start Check Off

Reference	a. <i>Ninth District Ice Rescue Manual</i> b. <i>SKF-ICE Operator's Handbook</i> c. <i>3.5hp Mercury Outboard Motor Owner's Manual</i> d. <i>Rescue and Survival Systems Manual, COMDTINST M10470.10 (series)</i>
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. Inspect crew members PPE and equipment IAW references (a) and (d)	_____
2. Inflate the SKF-ICE	_____

Instructor _____ **Date** _____
Comments _____



TASK OP-03-08-SKFICE: Conduct a Pre-Underway Check Off

Reference	a. <i>Ninth District Ice Rescue Manual</i> b. <i>SKF-ICE Operator's Handbook</i> c. 3.5hp Mercury Outboard Motor Owner's Manual
Conditions	Task should be performed if the SKF-ICE will be equipped with the outboard motor and after it is launched as per task OP-03-11-SKFICE in open water.
Standards	Trainee must demonstrate knowledge of each task to the minimum standards included in each performance step.

Performance Criteria	Completed (Initials)
1. Attach the outboard motor to the SKF-ICE	_____
2. Perform the pre-start procedures IAW reference (c)	_____
3. Start the motor and ensure it is operating within parameters	_____

Instructor _____ **Date** _____

Comments _____

TASK OP-03-11-SKFICE: Secure the SKF-ICE after operations

Reference	a. <i>Ninth District Ice Rescue Manual</i> b. <i>SKF-ICE Operator's Handbook</i> c. 3.5hp Mercury Outboard Motor Owner's Manual
Conditions	Task should be performed in winter conditions and in open water
Standards	Trainee must demonstrate knowledge of each task to the minimum standards included in each performance step.

Performance Criteria	Completed (Initials)
1. Run the outboard motor out of fuel	_____
2. Remove the outboard motor	_____
3. Flush and store the outboard motor IAW Reference (c)	_____
4. Remove the SKF-ICE to a clean/flat surface	_____
5. Deflate the SKF-ICE	_____
6. Clean SKF-ICE with approved cleaner, let dry and properly stow	_____

Instructor _____ **Date** _____

Comments _____



TASK OP-03-12-SKFICE: Deploy the SKF-ICE and get underway

Reference	a. <i>Ninth District Ice Rescue Manual</i> b. <i>SKF-ICE Operator's Handbook</i> c. <i>3.5hp Mercury Outboard Motor Owner's Manual</i>
Conditions	Task should be performed in winter conditions both on the ice and in close proximity to broken ice, in both day and night environments.
Standards	Trainee must demonstrate knowledge of each task to the minimum standards included in each performance step.

Performance Criteria	Completed (Initials)
1. Carry the SKF-ICE over rough terrain	_____
2. Drag the SKF-ICE over smooth terrain	_____
3. Deploy the SKF-ICE in open water	_____
4. Properly load gear and position rescue team members in the SKF-ICE	_____
5. Transit areas of open water using paddles	_____
6. Transit areas of open water using outboard motor	_____

Instructor _____ **Date** _____

Comments _____

TASK OP-03-13-SKFICE: Maneuver the SKF-ICE in tight quarters

Reference	a. <i>Ninth District Ice Rescue Manual</i> b. <i>SKF-ICE Operator's Handbook</i> c. <i>3.5hp Mercury Outboard Motor Owner's Manual</i>
Conditions	Task should be performed in winter conditions and in open water, in both day and night environments.
Standards	Trainee must demonstrate knowledge of each task to the minimum standards included in each performance step.

Performance Criteria	Completed (Initials)
1. Transit through broken ice using paddles	_____
2. Transit through broken ice using the outboard motor	_____
3. Maneuver the SKF-ICE alongside a fixed object	_____
4. Maneuver the SKF-ICE to rescue a victim	_____
5. Position the SKF-ICE to be used as a "bridge" by the ice rescue team to transit over open water/broken areas of ice.	_____

Instructor _____ **Date** _____

Comments _____



Section C. SKF-ICE Rescue and Assistance

Introduction

The following are objectives of Section C:

- (01) Connect the SKF-ICE to the tending line
- (02) Maneuver the SKF-ICE bow opening over the victim
- (03) Recover the victim from the water

In this Section

This Section contains the following tasks:

Task Number	Task	See Page
OP-07-01-SKFICE	Recover a Person from the Water Using the Direct Pick-Up Method	3-12



Part 3 – SKF-ICE Operator Qualification
Chapter 2 – SKF-ICE Operator Qualification Tasks

TASK OP-07-01-SKFICE: Recover a Person from the Water Using the Direct Pick-Up Method

Reference	a. <i>Ninth District Ice Rescue Manual</i> b. <i>SKF-ICE Operator's Handbook</i>
Conditions	Task should be performed in winter conditions on the ice, with a "victim" pre-staged in an ice opening, in both day and night environments.
Standards	Trainee must demonstrate knowledge of each task to the minimum standards included in each performance step.

Performance Criteria	Completed (Initials)
1. Connect SKF-ICE to tending line.	_____
2. While lying flat aft of the bow opening in the ready-rescue position, direct the maneuvering of the bow opening over the victim.	_____
3. Maintain good communications with the ice rescue team	_____
4. Place rescue sling on the victim and resize it	_____
5. Maintain positive control and instruct the victim to kick while falling back onto the SKF-ICE pulling the victim out of the water.	_____
6. Give signal for tenders to heave around and SKF-ICE is pulled to safe ice	_____

Instructor _____ **Date** _____

Comments _____



CHAPTER 3

SKF-ICE Operator 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 AOPS/TMT 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.

In this Chapter

This Chapter contains the following sections:

Section	Title	See Page
A	Reading Assignments – SKF-ICE Construction, Equipment and Fittings	3-14
B	Reading Assignments – SKF-ICE Propulsion, Operating and Maneuvering	3-16
C	Reading Assignments – SKF-ICE Rescue and Assistance	3-19



Section A. Reading Assignments – SKF-ICE Construction, Equipment and Fittings

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
OP-02-01-SKFICE	State Basic Construction and Design Features of the SKF-ICE	<i>Annex C to Ninth District Ice Rescue Manual SKF-ICE Operator's Handbook</i>	3-15
OP-02-03-SKFICE	Locate and State the Purpose of Deck Equipment and Fittings Onboard the SKF-ICE	<i>Annex C to Ninth District Ice Rescue Manual SKF-ICE Operator's Handbook</i>	3-15



TASK OP-02-01-SKFICE: State Basic Construction and Design Features of the SKF-ICE

1. The SKF-ICE is constructed of _____ material and is coated with _____ allowing prolonged sunlight.
 2. The SKF-ICE has ____ inflatable chambers and ____ beam construction for added strength to support incapacitated victims.
 3. The SKF-ICE is designed to accommodate an engine mount and can be equipped with a ____ HP outboard motor.
 4. True/False: The SKF-ICE can be used for long-haul ice rescue cases.
 5. True/False: Waxing the underside of the SKF-ICE will protect it from wear and reduces friction on the ice.
 6. The minimum number of qualified personnel is two, consisting of _____ and _____.
-

TASK OP-02-03-SKFICE: Locate and State the Purpose of Deck Equipment and Fittings Onboard the SKF-ICE

1. The outfit list for the SKF-ICE includes _____ inflation tanks, _____ Ice Anchors, a storage bag and _____ paddles.
 2. True/False: The carpet can be replaced at the unit level.
 3. True/False: The SKF-ICE can be used to shuttle victims to safety, much like a MARSARS Board.
 4. True/False: The SKF-ICE can be used for long-haul ice rescue cases.
 5. _____ should be notified if a SKF-ICE is damaged.
-



Section B. Reading Assignments – SKF-ICE Propulsion, Operating and Maneuvering

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
OP-03-04-SKFICE	Locate and State the Characteristics of the Components and Accessories of the Propulsion System	<i>Ninth District Ice Rescue Manual</i> <i>SKF-ICE Operator's Handbook</i> <i>Mercury Outboard Motor User Manual</i>	3-16
OP-03-06-SKFICE	Conduct a Pre-Start Check-Off	<i>Ninth District Ice Rescue Manual</i> <i>SKF-ICE Operator's Handbook</i> <i>Mercury Outboard Motor User Manual</i>	3-16
OP-03-08-SKFICE	Conduct a Pre-Underway Check-Off for the SKF-ICE	<i>Ninth District Ice Rescue Manual</i> <i>SKF-ICE Operator's Handbook</i>	3-16
OP-03-11-SKFICE	Secure the SKF-ICE After Operations	<i>Ninth District Ice Rescue Manual</i> <i>SKF-ICE Operator's Handbook</i>	3-16
OP-03-12-SKFICE	Deploy the SKF-ICE and Get Underway	<i>Ninth District Ice Rescue Manual</i> <i>SKF-ICE Operator's Handbook</i>	3-16
OP-03-13-SKFICE	Maneuver the SKF-ICE in Tight Quarters	<i>Ninth District Ice Rescue Manual</i> <i>SKF-ICE Operator's Handbook</i>	3-16



TASK OP-03-04-SKFICE: Locate and State the Characteristics of the Components and Accessories of the Propulsion System

1. The 3.5 Mercury Outboard motor is a _____ stroke engine
2. The lanyard stop switch is _____ feet long and is attached to the _____.
3. True/False: The 3.5 HP Mercury motor requires a Fuel/Oil mixture in order to operate.
4. Locate and discuss the characteristics of the fuel tank, fuel priming mechanism, choke and pull-start.
5. Fuel is secured to the motor by _____.
6. The full throttle operating Maximum RPM is _____ to _____.
7. The engine can be stopped by _____ and _____.
8. The motor can be locked in the forward-leaning position by the _____.
9. The vertical operating angle of the motor can be adjusted by moving the _____.
10. If ice should form at the water level inside the outboard driveshaft housing, it will _____ causing possible damage.
11. The maximum total weight including crew, passengers and equipment shall not exceed _____ lbs.

TASK OP-03-06-SKFICE: Conduct a Pre-Start Check-Off and Start the Motor

1. The _____ should be completely tightened to ensure the outboard is rigidly affixed to the transom.
2. The fuel tank is attached to _____.
3. _____ is used to prime the fuel into the carburetor.
4. The lubricating oil level can be assessed by viewing the _____.
5. The outboard uses _____ gasoline and can use fuel containing up to 10 percent ethanol.
6. Ethanol can have harmful effect on _____ and is not recommended.

TASK OP-03-08-SKFICE: Conduct a Pre-Underway Checklist for the SKF-ICE

1. All personnel are equipped with _____ IAW *Coast Guard Rescue and Survival Systems Manual* COMDTINST M10470.10 (series) and the District Nine Ice Rescue Manual.
 2. The tow strap is us for _____ and attached _____.
 3. The tow shield is used for _____ and is attached by _____.
 4. The floor top carpet is attached by _____.
 5. The motor mount is attached to the SKF-ICE by _____.
 6. The paddles are secured to the SKF-ICE by _____.
 7. The Ice anchors are secured to the SKF-ICE by _____.
 8. The SKF-ICE is inflated to _____ PSI when the _____ activates.
-



TASK OP-03-11-SKFICE: Secure the SKF-ICE After Operations

1. The outboard engine should be allowed to _____ before stowing.
2. If operating in contaminated waters, the outboard should be flushed with clean fresh water and drained by opening the _____.
3. Deflating and folding the SKF-ICE is accomplished by _____.
4. Storing the SKF-ICE with the floor inflated will _____ the warranty.
5. The SKF-ICE should be cleaned with _____ only.
6. UV ray from _____ can damage the SKF-ICE.
7. Approved unit level repair procedures are found in _____.

TASK OP-03-12-SKFICE: Deploy the SKF-ICE and Get Underway

1. The SKF-ICE is carried over rough terrain by _____.
2. The SKF-ICE can be dragged by the ice rescue team on _____ surfaces.
3. The SKF-ICE is propelled by either _____ or _____.
4. Excessive loading to one side will cause the SKF-ICE to _____.
5. The operator is positioned at the _____ of the SKF-ICE.

TASK OP-03-13-SKFICE: Maneuver the SKF-ICE in Tight Quarters

1. When operating the SKF-ICE in or near freezing temperatures, the outboard motor should be _____ at all times so the _____ is submerged.
 2. The SKF-ICE can be used to _____ members of the Ice Rescue team over weak areas of ice.
 3. The SKF-ICE is intended for use in _____ haul ice rescues only.
 4. The SKF-ICE shall be operated in sea conditions no greater than _____ FT and in winds not to exceed _____ KTS.
 5. Visibility must be greater than _____ NM in order for the SKF-ICE to be deployed.
 6. True/False: The SKF-ICE may be used as a search platform.
-



Section C. Reading Assignments – SKF-ICE Rescue and Assistance

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
OP-04-01-SKFICE	Recover a Person from the Water Using a Direct Pick-Up Method	<i>Ninth District Ice Rescue Manual</i> <i>SKF-ICE Operator's Handbook</i>	3-20



TASK OP-04-01-SKFICE: Recover a Person from the Water Using a Direct Pick-Up Method

1. When using the SKF-ICE to affect an ice rescue, it is considered a _____ technique as defined by the Ninth District Ice Rescue Manual.
 2. In addition to required PPE, two rescuers in the SKF-ICE will wear the _____
 2. The SKF-ICE is connected to the _____ or _____
 3. Using “Transiting on Ice” procedures the SKF-ICE is maneuvered with _____ to the victim.
 4. True/False: Either approved rescue sling can be used with the SKF-ICE.
 5. While maintain positive control of the victim and grasping the sling, the rescuer places _____ at the edge of the deck opening.
 6. While lifting and falling back onto the SKF-ICE floor, the victim will _____.
 7. The victim can be placed on either the _____ or _____.
-



PART 4

Air Boat Crew Member Qualification (AIRBCM)

Introduction

This Part contains a collection of tasks, which 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 Coast Guard Air Boat Crew Member. Prior to beginning this qualification, Trainees must first complete all applicable BCM “ANY” tasks. “TYPE” tasks in this Part are combination of BCM-TYPE and SPC-AIR specific.

In this Part

This Part contains the following chapters:

Chapter	Title	See Page
1	Task Accomplishment Record for Air Boat Crew Member	4-2
2	Air Boat Crew Member Qualification Tasks	4-5



CHAPTER 1

Task Accomplishment Record for Air Boat Crew Member

NOTE

Instructors shall use a copy of this form (for each trainee) to record accomplishment of tasks. Following task completion, task shall be recorded in AOPS/TMT.

TRAINEE NAME: _____ RATE: _____

INSTRUCTOR NAME: _____ RATE: _____

POSITION/QUALIFICATION CODE TO BE TRAINED FOR: _____

NOTE

“TYPE” tasks refer to the SPC-AIR platform.

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			

Part 4 – SPC-AIR Boat Crew Member Qualification
Chapter 1 - Task Accomplishment Record for SPC-AIR Boat Crew Member



BCM-02-14-ANY			
BCM-02-17-ANY			
BCM-02-18-ANY			
BCM-03-01-ANY			
BCM-03-06-ANY			
BCM-03-07-ANY			
BCM-03-08-ANY			
BCM-04-05-ANY			
BCM-04-06-ANY			
BCM-04-07-ANY			
BCM-04-08-ANY			
BCM-05-01-ANY			
BCM-05-03-ANY			
BCM-05-04-ANY			
BCM-06-01-ANY			
BCM-06-02-ANY			
BCM-06-03-ANY			
BCM-06-04-ANY			
BCM-06-05-ANY			
BCM-06-06-ANY			
BCM-06-07-ANY			
BCM-06-13-ANY			
BCM-07-06-ANY			
BCM-07-08-ANY			
BCM-07-16-ANY			
BCM-07-19-ANY			



Part 4 – SPC-AIR Boat Crew Member Qualification
Chapter 1 - Task Accomplishment Record for SPC-AIR Boat Crew Member

BCM-02-16-TYPE			
BCM-03-02-TYPE			
BCM-03-03-TYPE			
BCM-03-04-TYPE			
BCM-03-05-TYPE			
BCM-04-03-TYPE			
BCM-04-04-TYPE			
BCM-04-12-TYPE			
BCM-06-15 TYPE			
BCM-07-01-TYPE			
BCM-07-02-TYPE			
BCM-07-17-TYPE			
AIRBCM-01-01-TYPE			
AIRBCM-01-02-TYPE			



CHAPTER 2

SPC-AIR Boat Crew Member Qualification Tasks

Introduction

The following are the instructions for this Chapter:

- (01) The purpose of this Chapter is to provide guidance on the trainee's progress through the qualification tasks.
- (02) The instructor should present the tasks to the trainee in a logical order using the instructions provided in *Part I*.
- (03) Tasks should be signed, dated, and transferred into AOPS/TMT 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	Procedures and Operation	4-6



Section A. Procedures and Operation

Introduction

The following are objectives of Division Two – “Type”

- (01) **Complete** specified Boat Crew Member tasks
- (02) **Complete** SPC-AIR specific qualification tasks.

In this Section

This Section contains the following tasks:

Task Number	Task	See Page
BCM-XX-XX-ANY	Complete all applicable BCM-“ANY” Tasks	Tasks are in Boat Crew Qualification Handbook, Volume 1 - Boat Crewmember And Engineer
BCM-02-16-TYPE	Boat Egress Principles and Procedures	
BCM-03-02-TYPE	Locate and Identify the Purpose of the Equipment Aboard the Boat	
BCM-03-03-TYPE	Boat Characteristics - Boat Construction	
BCM-03-04-TYPE	Boat Characteristics - Watertight Integrity	
BCM-03-05-TYPE	Stability	
BCM-04-03-TYPE	Assist in Anchoring the Boat	
BCM-04-04-TYPE	Assist in Weighing the Boat’s Anchor	
BCM-04-12-TYPE	Boat Handling	
BCM-06-15-TYPE	Operate Electronic Charting System	
BCM-07-01-TYPE	Participate in a Man Overboard Evolution as a Pointer	
BCM-07-02-TYPE	Participate in a Man Overboard Evolution as a Recovery/Pickup Person	
BCM-07-17-TYPE	Locate and Identify the Firefighting Equipment Carried Onboard the Boat	
AIRBCM-01-01-TYPE	Demonstrate the Appropriate Response to the Basic Engineering Casualty Control Exercises (BECCE)	4-7
AIRBCM-01-02-TYPE	Operate in an Ice Environment	4-8



TASK AIRBCM-01-01-TYPE: Demonstrate the Appropriate Response to the Basic Engineering Casualty Control Exercises (BECCE)

- References**
- Boat Crew Handbook - Seamanship Fundamentals, BCH 16114.4 (series)*
 - 18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook*
 - Manufacturers Operator's Handbook and Technical Publication*
 - Platform Specific Underway Drill Checklists for Basic Engineering Casualty Control Exercises*

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)
1. Main Engine High Water Temperature.	_____
2. Loss of Main Engine Lube Oil Pressure.	_____
3. Main Engine High Lube Oil Pressure.	_____
4. Loss of Control Engine RPM's.	_____
5. Loss of Steering.	_____
6. Outboard Engine Fire.	_____
7. Collision with a Submerged Object.	_____
8. Loss of Fuel Oil Pressure.	_____
9. Loss of Electrical Power.	_____
10. Loss of GPS /Chart plotter (Electronic Casualty Control)	_____
11. Damage to Propeller	_____

Instructor _____ **Date** _____

Comments _____



Part 4 – SPC-AIR Boat Crew Member Qualification
Chapter 2 – SPC-AIR Boat Crew Member Qualification Tasks

TASK AIRBCM-01-02-TYPE: Operate in an Ice Environment

References

- a. *18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook*
- b. *Boat Information Book for 22 Foot Special Purpose Craft – Air (SPC-AIR)*

Conditions

Task should be performed in an ice environment, both day and night, while underway in the SPC-AIR

Standards

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

Performance Criteria	Completed (Initials)
2. Demonstrate the appropriate techniques to transit on ice covered with snow.	_____
2. Demonstrate the appropriate techniques to transit on clear ice.	_____
3. Demonstrate the appropriate techniques to transit over pressure ridges.	_____
4. Demonstrate the appropriate techniques to transit over ice cracks.	_____
5. Demonstrate the appropriate techniques to transition from water to ice.	_____
6. Demonstrate the appropriate techniques to transition from ice to water.	_____
7. Demonstrate the appropriate techniques to channel through ice.	_____
8. Demonstrate the appropriate techniques to conduct an emergency stop.	_____

Instructor

Date

Comments



PART 5

Air Boat Coxswain (AIRCOXN) Qualification

Introduction

This Part contains a collection of tasks, which 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 Coast Guard Air Boat (SPC-AIR) Coxswain. Prior to beginning this qualification, Trainees must first complete AIRBCM certification. “**TYPE**” tasks in this Part are combination of COXN-TYPE and SPC-AIR specific.

In this Part

This Part contains the following chapters:

Chapter	Title	See Page
1	Air Boat Coxswain Task Accomplishment Record	5-2
2	Air Boat Coxswain Qualification Tasks	5-4
3	Air Boat Coxswain Trainee Study Guide	5-13



CHAPTER 1

Task Accomplishment Record for Air Boat Coxswain

NOTE

Instructor shall use a copy of this form (for each trainee) to record accomplishments of tasks. Following task completion, task shall be recorded in AOPS/TMT.

TRAINEE NAME: _____

RATE: _____

INSTRUCTOR NAME: _____

RATE: _____

POSITION/QUALIFICATION CODE TO BE TRAINED FOR: _____

Task	Date Started	Date Completed	Instructor's Initials
Certified AIRBCM			
COXN-01-01-ANY			
COXN-01-02-ANY			
COXN-01-03-ANY			
COXN-03-01-ANY			
COXN-03-02-ANY			
COXN-04-01-ANY			
COXN-05-01-ANY			
COXN-05-02-ANY			
COXN-05-04-ANY			
COXN-05-15-ANY			
COXN-05-17-ANY			
COXN-06-01-ANY			
COXN-06-02-ANY			
COXN-06-03-ANY			
COXN-07-09-ANY			

Part 5 – Air Boat Coxswain (AIRCOXN) Qualification
Chapter 1 – Task Accomplishment Record for SPC-AIR Coxswain



Task	Date Started	Date Completed	Instructor's Initials
COXN-02-01-TYPE			
COXN-02-02-TYPE			
COXN-02-03-TYPE			
COXN-02-04-TYPE			
COXN-02-05-TYPE			
COXN-03-05-TYPE			
COXN-03-06-TYPE			
COXN-03-07-TYPE			
COXN-03-08-TYPE			
COXN-03-10-TYPE			
COXN-03-21-TYPE			
COXN-03-22-TYPE			
COXN-05-11-TYPE			
COXN-07-13-TYPE			
AIRCOXN 01-01-TYPE			
AIRCOXN 01-02-TYPE			
AIRCOXN 01-03-TYPE			
AIRCOXN 01-04-TYPE			
AIRCOXN 01-06-TYPE			
AIRCOXN 01-07-TYPE			
AIRCOXN 01-08-TYPE			



CHAPTER 2

Air Boat Coxswain Qualification Tasks

Introduction

The following are the instructions for this Chapter:

- (01) The purpose of this Chapter is to provide guidance on the trainee's progress through the qualification tasks.
- (02) The instructor should present the tasks to the trainee in a logical order using the instructions provided in *Part 1*.
- (03) 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.

Prerequisite

Prospective SPC-AIR Coxswain must first be a certified SPC-AIR Crewmember.

In this Chapter

This Chapter contains the following sections:

Section	Title	See Page
A	Procedures and Operation	5-5



Section A. Procedures and Operation

Introduction

The following are objectives of Division Two:

- (01) **Identify** and **describe** the structural features of SPC-AIR.
- (02) **Locate** and **explain** the use of all equipment and accessories.
- (03) **Perform** those tasks necessary for preparing and getting the SPC-AIR underway.

In this Section

This Section contains the following tasks:

Task Number	Task	See Page
AIRCOXN 01-01-TYPE	State the Operational Characteristics and Limitations of the Air Boat	5-6
AIRCOXN 01-02-TYPE	Locate and State the Characteristics of the Components and Accessories of the Air Boat's Propulsion System	5-7
AIRCOXN 01-03-TYPE	Trailer the Air Boat	5-8
AIRCOXN 01-04-TYPE	Launch the Air Boat	5-9
AIRCOXN 01-05-TYPE	Maneuvering an Air Boat in Icy Rivers and Open Areas	5-10
AIRCOXN 01-06-TYPE	Stop the Air Boat a safe distance from Object/Structure	5-10
AIRCOXN 01-07-TYPE	Transit the Air Boat in Various Ice Conditions	5-11
AIRCOXN 01-08-TYPE	Recover a Person from the Water Using the Indirect Pickup Method	5-12



Part 5 – Air Boat Coxswain (AIRCOXN) Qualification
Chapter 2 – Air Boat Coxswain Qualification Tasks

TASK AIRCOXN-01-01-TYPE: State the Operational Characteristics and Limitations of the Air Boat

Reference	a. 22' <i>Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> b. 18' and 20' <i>Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>
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, state the basic principles of boat handling as outlined in the steps listed below.

Performance Criteria	Completed (Initials)
3. State the maximum speed of the Air Boat in knots.	_____
2. State the most economical cruising RPMs.	_____
3. State the maximum range of the Air Boat at cruising RPMs in nautical miles.	_____
4. State the minimum crew size of the Air Boat.	_____
5. State the maximum endurance of the Air Boat at cruising RPMs.	_____
6. State the maximum number of people that can be carried on the Air Boat.	_____
7. State the maximum weight the Air Boat can accommodate.	_____
8. State the maximum seas in which Air Boat may operate.	_____
9. State the maximum wind speed in which the Air Boat may operate.	_____
10. State the causes and conditions of "spin-out" associated with the AIR BOAT.	_____
11. State the consequences of sudden reduction in throttle on the Air Boat.	_____
12. Describe "channeling" and state the consequences when operating the Air Boat on ice.	_____
13. State the turning characteristics of the Air Boat.	_____
14. State the stopping characteristics of the Air Boat.	_____
15. State the procedures for "trailing" and "un-trailing" the Air Boat.	_____
16. State the equipment that must be onboard and/or operative before the Air Boat can get underway.	_____
17. State the dangers of maneuvering the Air Boat close to victims, ice shanties, recreational vehicles, etc.	_____

Instructor _____ **Date** _____

Comments _____



TASK AIRCOXN-01-02-TYPE: Locate and State the Characteristics of the Components and Accessories of the Air Boat's Propulsion System

Reference	<p>a. <i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i></p> <p>b. <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i></p>
Conditions	Task should be performed at any time onboard each boat type. Trainee must accomplish the task without prompting or use of a reference.
Standards	In response to the instructor, the trainee must, without error, point out and state the characteristics of the boat's propulsion system components as outlined in the steps listed below.

Performance Criteria	Completed (Initials)
4. State the model number of the engine.	_____
2. State the horsepower of the engine.	_____
3. State the direction of the shaft rotation for the engine.	_____
4. State the maximum shaft RPMs for the engine.	_____
5. Locate the gauges and state the normal readings for the engine at idle and at cruising speeds: <ul style="list-style-type: none"> a. Water temperature in ° Fahrenheit. b. Lube oil pressure in pounds. c. Marine gear oil pressure in pounds. 	_____
6. Locate and state the purpose of the emergency engine cut-out stop control.	_____
7. State the type of fuel used in the engine.	_____
8. Locate and state the maximum capacity of the fuel tank in gallons.	_____
9. State the capacity of the lube oil system in quarts.	_____
10. Locate and state the type of cooling system used on the engine.	_____
11. State the freshwater capacity of each engine in gallons.	_____
12. State the purpose of the engine alarm system.	_____
13. State the composition and diameter of the propeller in inches.	_____
14. State the number of blades on the propeller.	_____
15. Locate and state the purpose of the Hydraulic System.	_____
16. Locate the bilge pump and state the gallons per minute capacity.	_____

Instructor _____ **Date** _____

Comments _____



Part 5 – Air Boat Coxswain (AIRCOXN) Qualification
Chapter 2 – Air Boat Coxswain Qualification Tasks

TASK AIRCOXN-01-03-TYPE: Trailer the Air Boat

Reference	a. 22' <i>Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> b. 18' and 20' <i>Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>
Conditions	Task should be performed during both day and nighttime conditions while pierside after the boat has been operated for a minimum of 45 minutes. Trainee will conduct all of the procedures necessary to secure the boat after operations. Trainee must accomplish the task without prompting or use of a reference.
Standards	Trainee must, without error, secure the boat after operations. Task must be accomplished in the order of presentation.

Performance Criteria	Completed (Initials)
5. Conduct securing procedure in accordance with applicable Boat Operator Handbook.	_____
6. Participate (lead) as an AIRCOXN in the trailering of an air boat (SPC-AIR).	_____
3. Conduct the following engineering checks: a. Top off fuel tank(s). b. Check oil levels in the engines, marine gears, and add if necessary. c. Check hydraulic steering oil and add if necessary. d. Pump bilges using shore-side equipment and wipe down engines. e. Make a visual check of all hoses, wiring, belts, and other items subject to wear.	_____
4. Stow all gear in accordance with the boat's daily check-off list.	_____
5. Secure all doors and windows.	_____
6. Wash boat down with freshwater.	_____
7. Energize shore-tie panel main power breaker and place battery charger and engine heater (hot starts) power switches in the on position.	_____
8. Complete required fields in ALMIS	_____

Instructor _____ **Date** _____

Comments _____



TASK AIRCOXN-01-04-TYPE: Launch the Air Boat

References

- a. 22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook
- b. Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR
- c. 18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook
- d. SPC-AIR Launch/Recovery Maintenance and Procedures Card (MPC)

Conditions

Task should be performed during both day and nighttime conditions on a flat, snow/ice covered surface and directly into the water at an adequate boat launch ramp.

Standards

Trainee must perform the task without casualty to personnel or boat in accordance with the steps listed below. Task must be accomplished within five minutes of beginning the evolution.

Performance Criteria	Completed (Initials)
7. Brief crew on the trailer/launch procedure and their duties.	_____
8. Connect the trailer to the towing vehicle.	_____
9. Transport to the launch site.	_____
10. Maneuver the trailer into position.	_____
11. Prepare the Air Boat for launch.	_____
6. Conduct engine test run before launch. (Coxswain remains in the Air Boat)	_____
7. Back trailer until water/ice touch the rear wheels (boat ramp only)	_____
8. For level, obstruction-free snow covered launch, release spring-loaded pins so tongue can be lowered.	_____
9. Remove winch control box from trailer utility box, ease tension and remove cable from bow eye.	_____
10. Tilt Trailer (level, obstruction-free snow covered launch)	_____
11. Back trailer slowly until partially submerged and boat starts to show floatation from the trailer. (ramp)	_____
12. Start engine, allow to idle and push the Air Boat off the trailer.	_____
13. Let out cable allowing Air Boat to slide down trailer onto flat surface. (level, obstruction-free snow covered launch)	_____
14. Pull empty trailer up the boat ramp and park in suitable area.	_____

Instructor _____

Date _____

Comments _____



Part 5 – Air Boat Coxswain (AIRCOXN) Qualification
Chapter 2 – Air Boat Coxswain Qualification Tasks

TASK AIRCOXN-01-05-TYPE: Maneuvering an Air Boat in Icy Rivers and Open Areas

Reference	a. <i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> b. <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> c. <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>
Conditions	Tasks should be performed while operating in both ice-covered and “soft-water” environments during both day and nighttime conditions, and within specified weather limitations. Trainee must accomplish task without prompting or use of a reference.
Standards	Trainee must perform the task to the minimum standards in accordance with the steps listed below.

Performance Criteria	Completed (Initials)
12. Transit a river system and state the effect on the SPC-AIR when transiting different forms of ice.	_____
13. Maneuver the Air Boat in open water and Smooth plate ice and explain why engine should be stopped when desiring to remain stationary on “glare” ice or in open water.	_____
14. State the Air Boat’s operation speed limit when operating on the ice.	_____
15. Maneuver the Air Boat in open areas, transiting various combinations of ice and snow.	_____

Instructor	Date
_____	_____
Comments	

TASK AIRCOXN-01-06-TYPE: Stop the Air Boat a Safe Distance from Object/Structure

Reference	a. <i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> b. <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> c. <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>
Conditions	Tasks should be performed while operating in both ice-covered and “soft-water” environments during both day and nighttime conditions, and within specified weather limitations. Trainee must accomplish task without prompting or use of a reference.
Standards	Trainee must perform the task to the minimum standards in accordance with the steps listed below.

Performance Criteria	Completed (Initials)
1. Brief crew on procedure to be used and their duties.	_____
2. State momentum considerations when planning to stop alongside an object or structure.	_____
3. Describe the reasons why the indirect approach method is preferred over the direct approach method.	_____
4. State expected effects of the wind and current on the Air Boat when stopped.	_____

Part 5 – Air Boat Coxswain (AIRCOXN) Qualification
Chapter 2 – Air Boat Coxswain Qualification Tasks



Performance Criteria	Completed (Initials)
5. State the effect on steerageway when RPMs are reduced.	_____
6. Safely approach an object/structure utilizing appropriate “bursts” of power.	_____
7. Ensure sufficient maneuvering room exists for safe departure prior to stopping.	_____

Instructor _____ **Date** _____

Comments _____

TASK AIRCOXN-01-07-TYPE: Transit the Air Boat in Various Ice Conditions

Reference	a. <i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> b. <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> c. <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>
Conditions	Task should be performed in various ice conditions, during both day and night. Trainee must accomplish the task without prompting or use of a reference.
Standards	In response to the instructor, the trainee must, without error, state the concerns in transiting various ice conditions. The Trainee must demonstrate sound judgment in choosing best route to avoid rough ice terrain while maintaining safe speed.

Performance Criteria	Completed (Initials)
1. Transit snow ice.	_____
2. Transit clear ice.	_____
3. Avoid pressure ridges.	_____
4. Transit pressure ridges if unavoidable.	_____
5. Transit ice crack/lead	_____
6. Transit from ice to water	_____
7. Transit from water to ice.	_____
8. Transit broken/brash ice	_____
9. Execute emergency stop on ice.	_____

Instructor _____ **Date** _____

Comments _____



Part 5 – Air Boat Coxswain (AIRCOXN) Qualification
Chapter 2 – Air Boat Coxswain Qualification Tasks

TASK AIRCOXN-01-08-TYPE: Recover a Person from the Water Using the Indirect Pickup Method

Reference

- a. *22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook*
- b. *Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR*
- c. *18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook*

Conditions

Task should be performed in various ice conditions, during both day and night. Trainee must accomplish the task without prompting or use of a reference.

Standards

In response to the instructor, the trainee must, without error, state the concerns in transiting various ice conditions.

The Trainee must demonstrate sound judgment in choosing best route to avoid rough ice terrain while maintaining safe speed.

Performance Criteria	Completed (Initials)
1. Coxswain receives report of MOB.	_____
2. Deploy life ring and strobe light correctly if used.	_____
3. Depress MOB button on the GPS/	_____
4. SPC-AIR comes about toward the side from which the MOB fell or in a safe manner.	_____
5. Pointer is assigned and positioned, and Coxswain is informed of MOB's position.	_____
6. Brief crew on indirect pickup method.	_____
7. Base approach to vicinity of MOB on prevailing weather conditions.	_____
8. Effectively utilize wind/current and short bursts of power to safely maneuver SPC-AIR within safe proximity of MOB.	_____
9. Secure SPC-AIR engine when deploying ice rescuer and while recovering MOB.	_____
10. Recover MOB within 6 minutes utilizing/ice rescuer.	_____
11. Notify unit.	_____

Instructor

Date

Comments



CHAPTER 3

Air Boat Coxswain Trainee Study Guide

Introduction

This Chapter should be extracted 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 and AOPS/TMT 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 Assignments – Air Boat Procedures and Operation	5-14



Section A. Reading Assignments – Air Boat Procedures and Operation

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
COXN-02-01-TYPE	State Basic Construction and Design Features of the SPC-AIR	<i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>	5-16
COXN-02-02-TYPE	State the Characteristics of and set Watertight Integrity aboard the SPC-AIR	<i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>	5-17
COXN-02-03-TYPE	Locate and state the purpose of Deck Equipment and Fittings aboard the SPC-AIR	<i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>	5-17
COXN-02-04-TYPE	Locate Installed Engineering and Propulsion Equipment and Fittings Onboard the SPC-AIR	<i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>	5-17
COXN-02-05-TYPE	Locate installed Electrical and Electronic Equipment and fittings Onboard the SPC-AIR	None assigned	1N/A
COXN-03-05-TYPE	Energize the Electrical and Electronic Systems on the SPC-AIR	<i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>	5-17
COXN-03-06-TYPE	Conduct a Pre-Start Check-off for the Air Boat	None Assigned	N/A



Task Number	Task Title	Reading Assignment	See Page
COXN-03-07-TYPE	Start the Air Boat	<i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>	5-17
COXN-03-08-TYPE	Conduct a Pre-Underway Check-off for the Air Boat	None Assigned	N/A
COXN-03-10-TYPE	Conduct a Normal Cruising Check Off	<i>Local Standing Orders</i> <i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>	N/A
COXN-03-21-TYPE	Anchor the Boat	<i>Boat Crew Handbook - Seamanship Fundamentals, BCH16114.4 (series)</i> <i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>	N/A
COXN-03-22-TYPE	Weigh the Boat's Anchor	<i>Boat Crew Handbook - Seamanship Fundamentals, BCH16114.4 (series)</i> <i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>	N/A
COXN-07-01-TYPE	Recover a Person From the Water Using the Direct Pickup Method	None Assigned	N/A
COXN-07-03-TYPE	Maneuver the Boat Alongside Another Boat, with No Way-On, and Safely Transfer Equipment and/or Personnel	None Assigned	N/A
COXN-07-13-TYPE	Demonstrate the Appropriate Responses to the Basic Engineering Casualty Control Exercises (BECCE)	<i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>	5-18



Task Number	Task Title	Reading Assignment	See Page
AIRCOXN 01-01-TYPE	State the Operational Characteristics and Limitations of the SPC-AIR	<i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>	5-18
AIRCOXN 01-02-TYPE	Locate and State the Characteristics of the Components and Accessories of the SPC-AIR's Propulsion System	<i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>	5-18
AIRCOXN 01-03-TYPE	Trailer the Air Boat	<i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>	5-18
AIRCOXN 01-04-TYPE	Launch the Air Boat	<i>22' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i> <i>Midwest Rescue Airboats (MRA) Boat Information Book for 22' SPC-AIR</i> <i>18' and 20' Special Purpose Craft – Airboat (SPC-AIR) Operators Handbook</i>	5-18
AIRCOXN 01-05-TYPE	Maneuvering an Air Boat in Icy Rivers and Open Areas	None Assigned	N/A
AIRCOXN 01-06-TYPE	Stop the Air Boat a safe distance from Object/ Structure	None Assigned	N/A
AIRCOXN 01-07-TYPE	Transit the Air Boat in Various Ice Conditions	None Assigned	N/A
AIRCOXN-08-01-TYPE	Recover a Person from the Water Using the Indirect Pickup Method	None Assigned	N/A

TASK COXN-02-01-TYPE: State Basic Construction and Design Features of the SPC-AIR

1. The 18' and 20' SPC-AIR is an _____ construction hull with an enclosed bow.
2. The SPC-AIR is generally _____ tight.
3. The 22' SPC-AIR has _____ separate compartments.
4. True/False: Ammonia is the recommended cleaning agent for Lexan windows.
5. The hull material is _____.



TASK COXN-02-02-TYPE: State the Characteristics of, and Set Watertight Integrity Aboard the SPC-AIR

1. The cabin of the 22' SPC-AIR is considered a _____ compartment
 2. In freezing spray conditions, the 22' cabin door should be _____.
-

TASK COXN-02-03-TYPE: Locate and State the Purpose of Deck Equipment and Fittings Onboard the SPC-AIR

1. The complete list of each piece of equipment required onboard a boat is contained in a document called the _____.
 2. Chafing chain assists in preventing chafing of the _____ on the bottom.
 3. Chafing gear is used to protect the _____ line.
 4. Personnel survival kits are used by _____ in the event of capsizing or man overboard.
-

TASK COXN-02-04-TYPE: Locate Installed Engineering and Propulsion Equipment and Fittings Onboard the SPC-AIR

1. The 22' SPC-AIR has _____ bilge pumps located _____ and _____.
 2. Rudders are connected using the _____ assembly.
 3. The propeller is constructed of _____.
-

TASK COXN-03-05-TYPE: Energize the Electrical and Electronic Systems on the SPC-AIR

1. The electrical system is _____.
 2. The power source is provided by _____.
 3. Power distribution from the source runs through a _____ before energizing the distribution panel.
 4. The Breaker Panel uses _____ to _____ amp fuses.
 5. Toggle switches on the panel energize _____.
-

TASK COXN-03-07-TYPE: Start the SPC-AIR

1. If the SPC-AIR fails to start, troubleshooting procedures are found in _____.
-

TASK COXN-03-21-TYPE: Anchor and Weigh Anchor

1. When selecting an anchorage, shallow water is preferred because a given amount of line will provide better _____ and reduce the _____ of the circle of swing.
 2. When approaching the anchorage, if possible, head _____ the wind or current.
 3. The scope of the anchor line used should be _____ to _____ times the depth of the water to be anchored in calm water.
 4. When letting go, the anchor line should be tended directly from the _____.
 5. When the anchor line is tending _____, the anchor will normally break free from the bottom.
 6. If the anchor refuses to break free, _____ the line around the forward bitt and go forward a few feet.
-

TASK COXN-05-11-TYPE: Operate the SPC-AIR's Electronic Charting System

1. The SPC-AIR is equipped with a _____ ECS.
 2. Resetting the ECS will _____.
 3. Position accuracy of the ECS can be assessed by _____.
-



TASK COXN-05-12-TYPE: Conn the SPC-AIR Using Electronic Charting System (Mode 1 Navigation)

1. True/False: The ECS can be used as the sole navigational tool.
 2. Past tracks can be _____ to log best passage through rough ice terrain.
 3. Cross track error is _____ when operating in rough ice terrain.
 4. The ECS is useful in conducting _____ search patterns.
-

TASK COXN-07-13-TYPE: Demonstrate the Appropriate Responses to the Basic Engineering Casualty Control Exercises (BECCE)

1. True/False: The SPC-AIR can proceed in an emergency even if the boat has a “Major Discrepancy”.
 2. _____ indicated engine overheat.
 3. Loss of fuel pressure will _____
 4. Unusual noise or vibration from the propeller may indicate _____.
-

TASK AIRCOXN-01-01-TYPE: State the Operational Characteristics and Limitations of the Air Boat

1. The maximum safe speed on ice is _____.
 2. Maneuvering the SPC-AIR close to a victim in the ice may _____.
 3. Sudden removal of thrust will cause loss of _____.
-

TASK AIRCOXN-01-02-TYPE: Locate and State the Characteristics of the Components and Accessories of the Air Boat’s Propulsion System

1. The SPC-AIR’s engine runs on _____ fuel.
 2. The _____ is used to extinguish an engine fire.
 3. The _____ protects the engine.
 4. Engine to propeller RPM reduction is accomplished through the _____.
 5. The engine is equipped with a _____ to keep the engine warm.
-

TASK AIRCOXN-01-03-TYPE: Trailer the Air Boat

1. Trailering from a flat surface requires the use of _____.
 2. True/False: “Power-loading” can assist with loading the SPC-AIR onto the trailer.
 3. Ensure electrical switches are _____ before plugging in the _____.
-

TASK AIRCOXN-01-04-TYPE: Launch the SPC-AIR

1. True/False: The Coxswain rides the SPC-AIR down off the trailer when launching into the water from a boat ramp.
 2. True/False: The trailer is pulled out from under the SPC-AIR with the towing vehicle when launching onto a flat, snow-covered surface.
 3. The SPC-Air is backed out of a narrow boat slip by _____.
-



APPENDIX A

Glossary

Introduction This appendix contains a list of terms that may be useful when reading this Handbook.



In this appendix This appendix contains the following information:

Topic	See Page
Glossary	A-2



TERM	DEFINITION
Aids to Navigation Team	An Aids to Navigation Team is a Coast Guard shore facility with an OPFAC, command cadre, and permanently assigned dutystanders, unit boat allowance, and equipment, which reports to a Group, Section or Activity command, or District Commander (in the case of D17).
Air Station	An Air Station is a Coast Guard shore facility with an OPFAC, command cadre, and permanently assigned dutystanders, unit boat allowance, and equipment, which reports to a Group, Section or Activity command, or District Commander (in the case of D17).
Auxiliary-Operated Station (Small)	An Auxiliary-Operated Station (small) is a Station (small) that relies on auxiliary members for its primary duty section staffing for three or more months a year is considered to be an “auxiliary operated” unit. Auxiliary operated Units may or may not have an active duty command cadre (i.e., OIC).
Boat Crew	Includes the coxswain, boat engineer, crewmen, and all other personnel required onboard a boat acting in an official capacity.
Boat Crew Examination Board (BCEB)	A group of certified boat crew members, consisting of experienced surfmen, heavy weather coxswains, boat coxswains, engineers, and crew members, as applicable, selected by the unit commander and organized to examine and evaluate boat crew candidates. BCEB is designated in writing.
Boat Outfit/Stowage Plans	The configuration requirements for standard boat outfits and equipment stowage plans are set forth in the applicable specific boat type Operator’s Handbook, COMDTINST M16114 (series).
Certification	Formal command verification that an individual has met all requirements and is authorized to perform the boat crew duties at a specific level aboard a particular boat type.
Command Cadre	The CO or OIC, the Executive Officer or Executive Petty Officer, the Engineering Petty Officer and senior Boatswain’s Mate (at units with COs) are a unit’s command cadre.
Crew Rest	Time during which alert crews do not engage in any Station work or operations. Crews are allowed to recreate and sleep.
Crew Underway Time	Begins when the crewmember reports to the designated place to prepare for a specific boat mission. Computation of such time ends when the mission is complete. Crew underway time includes time spent accomplishing pre-mission and post-mission boat checks.



TERM	DEFINITION
Current	A current crewmember is certified and has all recurring training requirements completed and up to date. Currency is maintained by completing the regularly scheduled minimum proficiency requirements of their current crew position.
Cutter	A Cutter, to which a cutterboat is assigned, contains an OPFAC, command cadre, and permanently assigned dutystanders, unit boat allowance, and equipment, which reports to a Sector, Group/Air Station, District or Area Commander.
Engineering Changes (ECs)	<p>These are the only authorized modifications to a standard boat. No one other than Commandant (G-SEN) is authorized to approve ECs to standard boats. The Specific Boat Type Operator's Handbook, COMDTINST M16114 (series) provides amplifying details on the EC process.</p> <p>NOTE  Engineering Changes (ECs) were formerly known as BOATALTS.</p>
Fatigue	A condition of impaired mental and physical performance brought about by extended periods of exertion and stress which reduces the individual's capability to respond to external stimuli. Some factors contributing to fatigue are sleep loss, exposure to temperature extremes (hypothermia and heat stress), motion sickness, changes in work and sleep cycles, physical exertion, workload, illness, hunger, and boredom. While an individual or crew may be considered to be fatigued at any time, at a minimum, they are considered to be fatigued when they exceed the underway or alert posture standards in this Section.
Fatigue Waiver	A waiver to crew rest or rest-recovery requirements granted by a Group Commander.
Heavy Weather	<p>Heavy weather is defined as sea, swell and wind conditions combining to exceed 8 FT and/or winds exceeding 30 KTS.</p> <p>NOTE  This definition of heavy weather is not intended to define a heavy weather situation for a specific boat type, as defined in <i>U.S. Coast Guard Boat Operations and Training (BOAT) Manual Volume I</i>, COMDTINST M16114.32 (series).</p>
Night	Night is defined as ½ hour after nautical sunset and ½ hour before nautical sunrise.
Non-Pooled Station (Small)	A Non-Pooled Station (small) is a Station (small) with permanently assigned personnel. These units will be assigned an Operating Facility (OPFAC) number, unit boat allowance and OIC.



TERM	DEFINITION
Operational Commander	For the purpose of this Handbook, Operational Commanders are defined as commanders of Sectors, Group/Air Stations, and Sections, who exercise direct operational control of a subordinate unit with a standard boat or non-standard boat assigned. This definition specifically does not include Station COs/OICs exercising operational control of a Station (small).
Operations	Time spent on pre-mission planning, underway, and post mission reporting or follow-up.
Parent Station	A parent Station is a unit with one or more subordinate Stations (small/s). Its command cadre allowance may be different from that of a typical unit to account for the increased responsibility associated with the assignment of subordinate Stations (small/s).
Pooled Station (Small)	The Pooled Station (small) is essentially a “remote operating location”. A Pooled Station (small) appears in the <i>Operating Facilities Change Order (OFCO)</i> , COMDTINST M5440.3 (series), but will not have an assigned OPFAC number, assigned unit boat allowance, personnel, or an OIC. The parent unit for this Pooled Station (small) has additional personnel to operate a boat from the physical location of the Station (small).
Qualification	The satisfactory completion of the appropriate qualification tasks.
Readiness	The ability of a boat to perform the functions and missions for which it was designed.
Ready for Operations Team (RFO Team)	A minimum of three members, the RFO team consists of members designated by the Operational Commander. Teams conduct annual assessment visits to ensure the goals of the Readiness and Standardization Program are achieved.
Recertification Process	The steps a crew member takes to regain command authorization to be assigned boat crew duties when prior certification has lapsed due to permanent change of station (PCS) transfer, failure to meet semi-annual/annual currency requirements, or revocation.
Reserve Augmented Unit	A Reserve Augmented Unit is a unit that relies on reserve personnel for at least one third of its primary duty section staffing for three or more months a year.
Rough Bar	A rough bar is a river entrance or inlet where Heavy weather or surf conditions exist. Also, in situations when the coxswain or the CO/OIC is unsure, a rough bar is assumed.



TERM	DEFINITION
Senior Boatswain's Mate	The senior Boatswain's Mate permanently assigned, other than the OIC or XPO. For purposes of Boat Crew Training, this individual is considered a member of the command cadre whose primary function is to lend experience to the unit training program, and assist in the training and mentoring of subordinate personnel.
Sleep Period	A period of time available for an individual to devote to sleeping that is not interrupted by official responsibilities.
Standardization Team (Stan Team)	A three to five member deployable evaluation team that consists of highly trained and experienced professionals specializing in the operational/deck and engineering aspects of each standard boat platform. Each team conducts biennial assessment visits to ensure the goals of the Readiness and Standardization Assessment (outlined in this Handbook) are achieved. These teams act as a deployable asset to the centers of excellence (UTBSC/NMLBS/NATON) for each standard boat platform, and in addition to providing field units with technical information, they support the centers by providing guidance and feedback to improve school training and program functions.
Station	A Station is a Coast Guard shore facility with an OPFAC, command cadre, and permanently assigned dutystanders, unit boat allowance, and equipment, which reports to a Group, Section or Activity command, or District Commander (in the case of D17).
Station (Small)	A Station (small) is a minimally staffed and resource constrained unit that receives operational direction, command, and support from its parent unit.
Station Aids to Navigation Team (STANT)	A STANT is a Coast Guard shore facility with an OPFAC, command cadre, and permanently assigned dutystanders, unit boat allowance, and equipment, which reports to a Group, Section or Activity command, or District Commander (in the case of D17).
Station Work	Activities that constitute normal unit work which are not directly associated with duty, boat operations, pre-mission planning, or post-mission reporting and follow-up. Ex: boat maintenance, Station cleanup, non-mission administrative tasks.
Structural Configuration Characteristics	This applies to the fit, form, and function of structural vessel parts. Watertight closures, vessel coatings, and mounted equipment locations are managed by structural configuration requirements.
Surf	Surf is defined as the waves or swell of the sea breaking on the shore or a reef.
Task	A separate training step learned in order to perform a particular job skill.
Task Code	A four-element code used to identify the applicability of tasks listed in this Handbook.



TERM	DEFINITION
Training Mentor	Certified individual who meets all prerequisites to sign training PQS.
Training Petty Officer	The petty officer assigned by the unit commander to supervise all aspects of unit training.
Type	A particular class of boat, such as 41' UTB, 49' BUSL, or 47' MLB.
Unit Commander	A CO or OIC of a unit with a standard or non-standard boat assigned.
Unit Training Petty Officer	The person designated by unit and billet assignment to supervise all aspects of unit training.
Urgent Operations	A mission of sufficient importance that the District Commander elects to execute it with a fatigued boat crew.
Urgent SAR	A mission which involves the probable loss of life unless the Coast Guard intervenes.



APPENDIX B

List of Acronyms

Introduction This appendix contains a list of acronyms used throughout the Handbook.

In this appendix This appendix contains the following information:

Topic	See Page
List of Acronyms	B-2



ACRONYM	DEFINITION
ABCM	ATON Boat Crew Member
AC	Alternating Current
ACOXN	ATON Coxswain
AIRBCM	Air Boat Boat Crew Member
AIRCOXN	Air Boat Coxswain
AOR	Area of Responsibility
BCEB	Boat Crew Examination Boards
BCM	Boat Crew Member
BCO	Boom/Crane Operator
BDS	Buoy Deck Supervisor
BECCE	Basic Engineering Casualty Control Exercises
BFCO	Boat Forces and Cutter Operations
BM	Boatswain's Mate
BUSL	Buoy Utility Stern Loading
CASREP	Casualty Report
CDV	Course Deviation Variance
CFR	Code of Federal Regulations
CO	Commanding Officer
CO/OIC	Commanding Officer/Officer-in-Charge
COMDTINST	Commandant Instruction
COXN	Coxswain
CS	Creeping Line Search
CSP	Commence Search Point
DC	Direct Current
DGPS	Differential Global Positioning System
DR	Dead Reckoning
E-SAR	Electronic Search and Rescue Fundamentals Course
EBL	Electronic Bearing Line
EC	Engineering Change
ECM	Electronic Control Module
EMT	Emergency Medical Technician



EPIRB	Emergency Position Indicating Radio Beacon
ENG	Engineer
ETA	Estimated Time of Arrival
FLIR	Forward Looking Infra Red
GAR	Green-Amber-Red
GPS	Global Positioning System
GSA	General Services Administration
HCU	Hand Control Unit
HDOP	Horizontal Dilution of Precision
HELP	Heat Escape Lessening Position
HVAC	Heating, Ventilation, and Air Conditioning
HWX	Heavy Weather Coxswain
ICW	Intracoastal Waterways
IMF	International Medium Frequency
IR	Infra Red
KTS	Knots
LOP	Line of Position
MARB	Marine Assistance Request Broadcast
MLB	Motor Lifeboat
MLC	Maintenance and Logistics Command
MOB	Man Overboard
NAVRULS	Navigation Rules
NCV	Noncompliant Vessel
NM	Nautical Miles
NMEA	National Marine Electronics Association
NMLBS	National Motor Lifeboat School
NSB	Non-Standard Boat
OIC	Officer-in-Charge
OPAREA	Operational Area
OPFAC	Operating Facility
ORM	Operational Risk Management
PCS	Permanent Change of Station
PFD	Personal Flotation Device
PIW	Person-in-the-Water
PLB	Personal Locator Beacon
PMS	Preventive/Planned Maintenance System
POB	Person Onboard
PPE	Personal Protective Equipment
PPS	Precise Positioning Service



Appendix B - List of Acronyms

PQS	Personnel Qualification Standard
PS	Parallel Search
PTO	Power Take-Off
PTT	Press to Talk
PWCS	Ports Waterways and Coastal Security
RB-S	Response Boat Small
RB-HS	Response Boat Homeland Security
RB-M	Response Boat Medium
RFO	Ready for Operations
RPM	Revolutions per Minute
SAR	Search and Rescue
SGA	Stabilized Gimball Assembly
SINS	Scalable Integrated Navigation System
SMC	SAR Mission Coordinator
SOG	Speed Over Ground
SOP	Standard Operating Procedures
SPC (HWX)	Special Purpose Craft Heavy Weather
SPC-LE	Special Purpose Craft Law Enforcement
SPE	Severity-Probability-Exposure
SPE/GAR	Severity-Probability-Exposure/Green-Amber-Red
SPS	Standard Positioning Service
SRF	Surfman
SS	Square Search
SSB-HF	Single Side Band-High Frequency
STANT	Station Aids to Navigation Team
TAP	TruLink Access Point
TCT	Team Coordination Training
TD	Time Difference
TPT	TruLink Portable Transceiver
TSN	TrackLine Single-Unit Non-Return
TSR	TrackLine Single-Unit Return
U/W	Underway
UHF	Ultra High Frequency
UPH	Unaccompanied Personnel Housing
UTB	Utility Boat
UTM	Utility Boat Medium
VAC	Volts Alternating Current
VDC	Volts Direct Current
VHF	Very High Frequency

Appendix B - List of Acronyms



VOX	Voice Operated Transmitter
VRM	Variable Range Marker
VRO	Variable Ratio Oiler
VS	Sector Search
WLL	Working Load Limit
XPO	Executive Petty Officer
XTE	Cross Track Error