



# Boat Operator for Search and Rescue Course Overview

## About the Course

In accordance with the National Association of State Boating Law Administrators (NASBLA) Boat Operations and Training (BOAT) Program, the following outline provides a course of instruction to give maritime law enforcement and emergency responders a learning framework in order to become more proficient with skills necessary to operate in the maritime environment and conduct search and rescue operations. A key element of this course will be the preparation of participants to become qualified in the tasks necessary for response to maritime safety and security operations, and Coast Guard/FEMA recognition in the national qualification database maintained by and through NASBLA.

The five day/35 hour course will focus on the elements in the following qualification areas, as listed in the U.S. Coast Guard's Boat Operations and Training Manual (Volume II) and **meet the national standards of training, qualification, credentialing and typing established in the NASBLA Boat Operations and Training (BOAT) Manual (Volume III):**

Section	Subject Area
A	Crew Efficiency Factors, Risk Factors and Team Coordination
B	Boat Characteristics and Stability
C	Boat Handling
E	Boat Piloting and Navigation
F	Search and Rescue
G	Rescue and Assistance
H	Towing and Salvage

**Course No. DHS-127-RESP in the FEMA NTED Catalog**

## Areas not covered in this course

Section D of the BOAT Manual (Rules of the Road) will not be covered, and depending on the vessels used by the trainees, some elements of Section E like Operation of the Radar (BOSAR-05-08 through BOSAR-05-10,) Operate the Autopilot (BOSAR-05-14,) may not be covered.

## References

- *Boat Crew Seamanship Manual*, COMDTINST M16114.5 (series)
- *Rescue and Survival Systems Manual*, COMDTINST M10470.10 (series)
- *Navigation Rules International-Inland*, COMDTINST M16672.2 (series)
- *U.S. Coast Guard Addendum to the United States National Search and Rescue Supplement (NSS) to the International Aeronautical and Maritime Search and Rescue Manual*, COMDTINST M16130.2 (series)
- *Nautical Chart Symbols, Abbreviations, and Terms, Chart No. 1*
- *The American Practical Navigator*
- *Chapman Piloting*
- *National Safe Boating Council Essentials of Close-Quarters Boat Control (Sept 2009)*

## Course Purpose

The BOAT Operator for Search and Rescue (BOSAR) Course, as part of the entire Boat Operations and Training (BOAT) Program, was created to establish a national standard of training, qualification, credentialing and typing of emergency responders throughout the maritime domain. It is the purpose of this course to establish a uniform and standardized understanding of maritime rescue operations, and provide the skills necessary to execute missions safely. Secondly, and equally as important, it is the purpose of this course and the entire BOAT Program, to enhance the safety and response capabilities throughout the country, as graduates will be able to provide a true force-multiplier to the United States and the Coast Guard specifically.

## Method of Delivery

The course is exportable and delivered to the location of the host agency and the venue of their choice. This allows students to practice in the area they operate in, and on the vessels they operate on. The course is delivered using “team teaching” as the model, where all instructors are engaged in every module within the course, so that students get multiple views and experiences to support and enhance the learning environment.



## Criteria Performance Standard

Upon successful completion of the course, the student will demonstrate mastery of each of the objectives outlined in each module through a compilation of measures including objective testing, scenario review, class discussion, practical activities and homework.

## Target Audience

This class is designed to provide federal, state, county, local and tribal emergency responders (firefighters, law enforcement officers, commercial tow operators, harbor masters, etc.) in the maritime domain a framework of knowledge and skills to perform search and rescue missions on the water in a safe and efficient manner.

## Course Structure

This course consists of instructor lecture, which will be aided (and assessed) by slide presentations, class interaction, practical exercises, a knowledge test and final exam. The instructor will emphasize student interaction and discussion throughout the course to ensure that the information taught is being understood and can be applied in a real-world environment.

## Class Size/Student to Instructor Ratio

The minimum class size is 8 students, the maximum number is 20. Instructors for each class will meet a maximum of 4 students per instructor for each class (4 to 1 Student to Instructor Ratio.)

## Course Requirements

Students will be required to bring appropriate foul weather gear for the area and time of the training, appropriate personal flotation device for the environment at the time of the training with consideration of air and water temperature, and appropriate clothing to conduct the exercises during the week.

Additionally, agencies and departments will be required to provide a vessel for the students that will be attending (ideal ratio of one vessel for every 4 students) in order for them to learn how to apply the skills on the vessels that they will be operating on, and in their area of operation.

## Facility Requirements

In order to deliver the course, a classroom area will have to be provided that will seat at tables up to 40 people. Additionally, the classroom will require a projector a screen, a whiteboard and/or easel boards with paper, writing instruments, power cords, sound speakers, bathroom facilities, and dock space for vessels in close proximity to the classroom.



## Materials Provided

Each student will be provided a “Student Handbook” complete with every slide and some reference material they can use for future application. Additionally, students who would like copies of the modules will be allowed access to the “Instructor Portal” to facilitate the sharing of information. Within 30 days of completion of the course, students will be provided a certificate from NASBLA’s National Headquarters in Lexington, KY and will be entered into the national database of trained BOAT Crew Members.

## Course Cost

The fee for the five day/40 hour course is \$32,000 for up to 20 students, and covers all instructor costs (travel, per diem, fees, etc.) administrative costs (certificates, database entry, etc.) and materials (student handbooks, practical exercise materials, etc.) The course fee on an individual student basis is \$1800 with a minimum requirement of 12 students.

**NOTE:** Course Schedule is subject to change at each delivery and is dependent on weather, facility, platform, equipment, circumstances and/or student complications, and left to the discretion of the Lead Instructor.

## CONTACT INFORMATION:

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# Boat Operator for Search and Rescue Course Overview

## Course Breakdown

The following outline identifies the specific Boat Operator Qualification tasks (found in the NASBLA BOAT Manual VOL II) that will be covered in this course.

### *Section A: Crew Efficiency Factors, Risk Factors and Team Coordination*

Task Number	Task	Classroom	Practical
BOSAR-01-01-ANY	Crew Fatigue	.5	0
BOSAR-01-02-ANY	Team Coordination Training (TCT)	1.5	0
	<b>TOTAL</b>	<b>2</b>	<b>0</b>

### *Section B: Boat Characteristics and Stability*

Task Number	Task	Classroom	Practical
BOSAR-02-01-TYPE	State Basic Construction and Design Features of the Boat	.5	
BOSAR-02-02-TYPE	State the Characteristics of, and Set Watertight Integrity Aboard a Boat	.5	
BOSAR-02-03-TYPE	Locate and State the Purpose of Deck Equipment and Fittings Onboard a Boat	.5	.5
BOSAR-02-04-TYPE	Locate Installed Engineering and Propulsion Equipment and Fittings Onboard a Boat	.5	.5
BOSAR-02-05-TYPE	Locate Installed Electrical and Electronic Equipment and Fittings Onboard a Boat	.5	.5
BOSAR-02-06-ANY	Recognize Warning Signs of an Unstable Boat Before Boarding	.5	
	<b>TOTAL</b>	<b>3</b>	<b>1.5</b>

### *Section C: Boat Handling*

Task Number	Task	Classroom	Practical
BOSAR -03-01-ANY	State the Forces that Affect Boat Handling	.5	
BOSAR -03-02-ANY	State the Basic Principles of Boat Handling	.5	
BOSAR -03-03-TYPE	State the Operational Characteristics and Limitations of the Boat	.5	
BOSAR -03-04-TYPE	Locate and State the Characteristics of the Components and Accessories of the Boat's Propulsion System	.5	
BOSAR -03-05-TYPE	Energize the Electrical and Electronic Systems on the Boat	.25	.25
BOSAR -03-06-TYPE	Conduct a Pre-Start Checkoff for the Boat	.5	.25
BOSAR -03-07-TYPE	Start the Boat		.25
BOSAR -03-08-TYPE	Conduct a Pre-Underway Checkoff for the Boat	.25	.25



# Boat Operator for Search and Rescue Course Overview

BOSAR -03-10-TYPE	Conduct a Normal Cruising Checkoff	.25	.25
BOSAR -03-11-TYPE	Secure the Boat After Operations	.25	.25
BOSAR -03-12-TYPE	Get the Boat Away from a Pier	.5	.25
BOSAR -03-13-TYPE	Maneuver the Boat in Tight Quarters	.5	.25
BOSAR -03-14-TYPE	Come About in a Narrow Channel	.5	.25
BOSAR -03-15-TYPE	Operate the Boat and Apply its Handling Characteristics in a Following Sea	.25	
BOSAR -03-16-TYPE	Maneuver in Heavy Weather	.25	
BOSAR -03-17-TYPE	Maneuver in Rivers	.25	
BOSAR -03-18-TYPE	Identify Heavy Weather Terms	.25	
BOSAR -03-19-TYPE	Correct for Hard Chine Lock-Up	.25	.25
BOSAR -03-20-TYPE	Moor the Boat	.25	.25
BOSAR -03-21-TYPE	Anchor the Boat	.25	.25
BOSAR -03-22-TYPE	Weigh the Boat's Anchor	.25	.25
	<b>TOTAL</b>	<b>7</b>	<b>3.25</b>

## *Section E: Boat Piloting and Navigation*

<b>Task Number</b>	<b>Task</b>	<b>Classroom</b>	<b>Practical</b>
BOSAR -05-01-ANY	Identify Navigational Publications	.25	
BOSAR -05-02-ANY	Determine a Compass Course from a True Course	.5	
BOSAR -05-03-ANY	Pilot the Boat Using Dead Reckoning (DR) Techniques	.25	
BOSAR -05-04-ANY	Pilot a Boat Using "Seaman's Eye"	.25	
BOSAR -05-05-TYPE	Operate the GPS/DGPS		.25
BOSAR -05-06-TYPE	Determine the location of a Boat Using GPS/DGPS		.25
BOSAR -05-07-TYPE	Pilot a Boat Using GPS/DGPS		.25
BOSAR -05-08-TYPE	Operate the Radar	.25	.25
BOSAR -05-09-TYPE	Determine the Location of a Boat Using Radar Ranges and Bearings	.25	.25
BOSAR -05-10-ANY	Conn a Boat Using Radar		.25
BOSAR -05-11-TYPE	Operate Electronic Charting		.25
BOSAR -05-12-ANY	Pilot a Boat Using all Electronic Equipment, a Navigation Kit, Charts, and Tables	.25	.5
BOSAR -05-13-TYPE	Operate, Determine the Location of, and Pilot a Non-Standard Boat Using GPS/DGPS		.5
BOSAR -05-15-ANY	Distance, Speed, and Time	.5	.5
	<b>TOTAL</b>	<b>2.5</b>	<b>3.25</b>



# Boat Operator for Search and Rescue Course Overview

## *Section F: Search and Rescue*

Task Number	Task	Classroom	Practical
BOSAR-06-01-ANY	Organization and Responsibility	.5	
BOSAR-06-02-ANY	Legal Aspects and USCG Policy	.5	
BOSAR-06-04-ANY	Plot the Following Search Patterns: Expanding Square (SS), Sector (VS)	2.0	
BOSAR-06-05-ANY	Plot the Following Search Patterns: Parallel (PS), Creeping Line (CS), Track Line Non-Return (TSN), and Track Line Return (TSR)	3.5	
BOSAR-06-06-ANY	Execute a Single Unit Expanding Square Search (SS) Pattern		.5
BOSAR-06-07-ANY	Execute a Single Unit Sector Search (VS) Pattern		.5
BOSAR-06-08-ANY	Execute a Single Unit Parallel Search (PS) Pattern		.5
BOSAR-06-09-ANY	Execute a Single Unit Creeping Line Search (CS) Pattern		.5
BOSAR-06-10-ANY	Execute a Single Unit Track Line Non-Return Search (TSN) Pattern		.5
BOSAR-06-11-ANY	Execute a Single Unit Track Line Return Search (TSR) Pattern		.5
	<b>TOTAL</b>	<b>6.5</b>	<b>3</b>

## *Section G: Rescue and Assistance*

\*Some tasks may not be accomplished due to availability of resources, platforms, equipment, personnel and/or weather restrictions.

Task Number	Task	Classroom	Practical
BOSAR-07-01-TYPE	Recover a Person from the Water Using the Direct Pickup Method	.5	
BOSAR-07-02-TYPE	Recover a Life-Like Dummy (Oscar) in 2 to 4 FT Seas		
BOSAR-07-03-TYPE	Maneuver the Boat Alongside Another Boat, with No Way-On, and Transfer Personnel	.5	.5
BOSAR-07-04-TYPE	Maneuver the Boat Alongside Another Boat, with Way-On, and Transfer Personnel	.5	.5
BOSAR-07-05-TYPE	Maneuver the Boat Alongside a Ship and Transfer Personnel	.5	.5
BOSAR-07-06-ANY	*Use a Portable Pump to Dewater a Sinking or Swamped Boat	.5	.5
BOSAR-07-07-TYPE	Maneuver the Boat Alongside or in Close Proximity of a Burning Boat to Transfer Personnel	.5	.5
BOSAR-07-08-TYPE	*Use an Eductor to Dewater a Sinking or Swamped Boat	.5	.5
BOSAR-07-09-ANY	*Attend a Static Display Given by a CG Helicopter Air Crew	.25	.5
BOSAR-07-10-TYPE	*Participate in a Basket Hoist Using the Direct Delivery Method	.25	.25
BOSAR-07-11-TYPE	*Participate in a Basket Hoist Using the Trail Line Delivery Method	.25	.25
BOSAR-07-12-TYPE	*Participate in a Rescue Swimmer Transfer Using the Rescue Strap	.25	.25
BOSAR-07-13-TYPE	Demonstrate the Appropriate Responses to the Basic Engineering Casualty Control Exercises (BECCE)	1.0	.5
	<b>TOTAL</b>	<b>5</b>	<b>4.75</b>

Total Classroom Hours: 26. Total Practical or On the Water Hours: 15.75  
Total Course Hours: 41.75. Targeted Delivery with overlapping subject areas: 35 Hours