



**NATIONAL ASSOCIATION OF STATE  
BOATING LAW ADMINISTRATORS**

**National Boating Education Standards**

**With updates as of January 1, 2012**



*Produced under a grant from the Sport Fish Restoration and  
Boating Trust Fund, administered by the U.S. Coast Guard.*

### **Original Boating Education Standards Advisory Board**

John Malatak	U.S. Coast Guard
Fred Messmann	Education Committee Chair, NASBLA
Carl Mahnken	U.S. Power Squadron
Rod Allen	U.S. Power Squadron
Dan Maxim	U.S. Coast Guard Auxiliary
Virgil Chambers	National Safe Boating Council
Marty Law	Oregon State Marine Board
Emily King	Ohio DNR, Division of Watercraft
Harry Munns	American Sailing Association
Sarah Barker	NASBLA Staff

### **2009 Boating Education Standards Advisory Board**

Marty Law	Oregon State Marine Board
Terry West	Georgia Department of Natural Resources
Ed Huntsman	Arizona Game & Fish Department
Dan Martin	Pennsylvania Fish & Boat Commission
Betsy Woods	Tennessee Wildlife Resources Agency
Ken Ripley	Tennessee Wildlife Resources Agency
Fred Messmann	Nevada Department of Wildlife
Pam Dillon	Ohio DNR, Division of Watercraft
Emily King	Ohio DNR, Division of Watercraft
Virgil Chambers	National Safe Boating Council
Kurt Kalkomey	Boat Ed, Inc.
Kerry Moher	BoaterExam.com
Chris Edmonston	BoatU.S. Foundation
Jo Mogle	U.S. Sailing Association
Bob Sweet	U.S. Power Squadron
Anne Lockwood	U.S. Coast Guard Auxiliary
Wayne Stacey	U.S. Coast Guard
Krista Kendall	Transport Canada
Deb Gona	NASBLA Staff
Gail Kulp	NASBLA Staff

*In Consultation and Contract With:*

*The Pennsylvania State University  
Colorado State University  
California University of Pennsylvania*

*By:  
Alan R. Graefe  
Stuart P. Cottrell  
J. William Hug*

## Table of Contents

Disclaimer.....	5
The National Association of State Boating Law Administrators .....	6
Preamble .....	7
The National Boating Education Standards .....	10
The Boat .....	10
Standard 1.1 - Boat Capacities .....	10
Standard 1.2 - Boat Registration Requirements .....	10
Boating Equipment.....	10
Standard 2.1 - Personal Flotation Device Types and Carriage.....	10
Standard 2.2 – Personal Flotation Device Sizing and Availability .....	11
Standard 2.3 - Wearing Personal Flotation Devices.....	11
Standard 2.4 - Personal Flotation Device Serviceability.....	11
Standard 2.5 - Fire Extinguisher Equipment.....	12
Standard 2.6 - Back-Fire Flame Control Device.....	12
Standard 2.7 – Ventilation Systems.....	12
Standard 2.8 – Navigation Light Equipment.....	12
Standard 2.9 - Sound Signaling Equipment .....	13
Standard 2.10 – Visual Distress Signal Equipment.....	13
Trip Planning and Preparation.....	13
Standard 3.1 - Checking Local Weather And Water Conditions .....	13
Standard 3.2 - Checking Local Hazards .....	13
Standard 3.3 - Filing a Float Plan.....	14
Standard 3.4 - Boat Preventative Maintenance .....	14
Standard 3.5 – Transporting and Trailering .....	14
Standard 3.6 - Fueling Procedures .....	14
Standard 3.7 - Pre-Departure Checklist & Passenger Communication.....	15
Marine Environment.....	15
Standard 4.1 – Environmental Laws and Regulations.....	15
Standard 4.2 - Human Waste Disposal.....	15
Standard 4.3 – Disposal of Toxic Substances .....	16
Safe Boat Operation .....	16
Standard 5.1 - Operator Responsibilities.....	16
Standard 5.2 - Influence of Drugs and Alcohol on Boat Operation .....	17
Standard 5.3 - Navigation Rules.....	17
Standard 5.4 - Aids to Navigation .....	18
Standard 5.5 - Docking and Mooring.....	18
Standard 5.6 - Anchoring .....	18
Standard 5.7 – Carbon Monoxide.....	19
Standard 5.8 - Propeller Intervention & Awareness.....	19
Emergency Preparedness.....	19
Standard 6.1 - Rendering Assistance.....	19
Standard 6.2 - Capsizing/Falls Overboard .....	20
Standard 6.3 – Cold Water Immersion and Hypothermia Prevention.....	20
Standard 6.4- Fire Emergency Preparedness.....	20
Standard 6.5 - Running Aground Prevention and Response .....	21
Other Water Activities.....	21
Standard 7.1 – Personal Watercraft and other Jet Propelled Watercraft .....	21
Standard 7.2 - Water Skiing, Towed Devices and Wake Sports .....	21
Standard 7.3 - Diving and Snorkeling .....	22

Standard 7.4 - Hunting & Fishing .....	22
Standard 7.5 – Paddlesports and Small Boats .....	22
State Specific Requirements and Continuing Education.....	22
Standard 8.1 - Continuing Education .....	23
Standard 8.2 - State Specific Boating Information.....	23
Course Design and Assessment Requirements.....	24
Standard 9.1 – Boat Operator Knowledge Course Designs .....	24
Standard 9.2 – Boat Operator Knowledge Assessments .....	24
Standard 9.3 - Online Assessment Requirements.....	28
Online and Other Electronic Course Delivery and Presentation.....	30
Standard 10.1 - Organization of Course Content.....	30
Standard 10.2 - Minimum Initial Study Time for Online Course.....	30
R1 – Boat Types and Uses.....	31
R2 - Boating Terms .....	31
R3 - Boat Theft Prevention.....	31
R4 - Communication Procedures.....	32
References Consulted .....	33

## **Disclaimer**

NASBLA and affiliated organizations do not undertake to verify the continuous adherence by courses or instructors to every applicable standard or guideline. Nor does the National Association of State Boating Law Administrators warrant, guarantee, or insure that compliance with these standards will prevent any or all injury or loss that may be caused by or associated with any person's use of boats, facilities, equipment, or other items or activities that are the subjects of these standards; nor does the National Association of State Boating Law Administrators assume any responsibility or liability for any such injury or loss.

Further, the National Association of State Boating Law Administrators hereby expressly disclaims any responsibility, liability or duty to affiliated courses, organizations, instructors, boaters or their families, for any such liability arising out of injury or loss to any person by the failure of such organizations, courses, or instructors to adhere to these standards.

Adapted from: American Camping Association. (1998). Accreditation Standards for Camp Programs and Services. American Camping Association: Martinsville, IN.

## **The National Association of State Boating Law Administrators**

Since its inception, the National Association of State Boating Law Administrators (NASBLA) has functioned effectively as the voice of the states and territories regarding state boating law enforcement and boating safety. Today, NASBLA coordinates approval of state and private boating education programs, promotes uniform boating regulations through the adoption of model acts and policies, develops methods to improve the nation's boating accident database, fosters cooperation between the U.S. Coast Guard and the states, and strives for the general advancement of boating safety.

Membership in the association consists of state officials responsible for administering and/or enforcing state boating laws. "State" means a state of the United States, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, Northern Mariana Islands and the District of Columbia. Officers of the association consist of a President, Vice President, Secretary-Treasurer, and an executive board composed of three other members-at-large and the immediate Past President. The Board is augmented with an Executive Director. Officers are elected annually and take office on the first day following the conference at which they were elected, and hold office until the last day of the conference at which their successors are chosen.

The association is recognized for its stewardship of recreational boating safety. NASBLA has worked closely with the U.S. Coast Guard, the States and others to insure that the intent of the congress to promote uniformity, reciprocity and comity among the various states was given priority. Testimony of this is the many resolutions and model acts that have been generated by the association. In doing this, NASBLA brings to the table highly-qualified personnel in the fields of boating law enforcement, education, boating safety and on-the-water search and rescue.

## **Preamble**

The purpose of these standards is to educate boating education professionals regarding the practices and procedures followed generally within the boating education community. That purpose is furthered to the extent that the standards provide a basis for approval of boating education courses by the National Association of State Boating Law Administrators (NASBLA). It is not the intention of NASBLA to attempt to include every practice or procedure that might be desirable or implemented within a boating education course since the conditions, facilities, and goals of all courses are not identical or uniform.

The approval designation given by the National Association of State Boating Law Administrators is designed to be applied only to those boating education courses that are consistent with the stated definitions and eligibility requirements. Courses outside of these definitions or criteria are not subject to our standards and are not considered for approval.

## **Standards Development**

NASBLA developed its minimum content for boating education courses in July of 1998. Prior to that time, the standards served as a guide for state, non-profit and commercial providers to follow in developing boating education materials. NASBLA contracted with a research team anchored at the Pennsylvania State University to evaluate the existing guidelines and develop a new minimum “standard of care” for boating education. This new set of standards was intended to prescribe the minimum body of knowledge necessary to effect safe, legal, and enjoyable boating. In addition, the proposed standard of care was predicated on reducing risks to recreational boaters based on empirical accident and boating violation statistics.

Relevant documents listed in the reference section of this document were reviewed and interviews were conducted with nationally prominent and recognized boating educators. A working draft of the standards was written and submitted to the Standards Advisory Committee for review and comment. Several more drafts of the standards were completed, each going through a revision process. In December of 1998, the research team met with the Standards Advisory Committee for two days of review and comment. The result of that meeting was a draft set of standards to be validated and pilot tested in the second phase of the study which took place between January and August, 1999. The results of this second phase of the study showed a strong consensus among boating educators that the draft standards represented the minimum information that should be taught in an eight hour boating safety course. The final version of the standards was approved by the Standards Advisory Board, the Education Committee and was approved by the overall membership of NASBLA on September 22, 1999.

A process for revising the content of the standards was developed and all changes were vetted through the NASBLA Education Committee. Once the committee had approved any changes to the Standards, the NASBLA membership voted on the final approval of the changes at their annual conference each September. Amendments to the Standards can be found on the NASBLA website.

In 2009, the NASBLA membership requested that the Standards be analyzed in order to determine whether they had assisted in the reduction of risks to recreational boaters in the 10 years in which they were in use. NASBLA was fortunate to be able to work with the original researchers from the 1998 project however the research team was now anchored at Colorado State University. The 2009 Standards Advisory Committee was made up of a combination of state agency staff as well as stakeholders in the recreational boating education field. The researchers analyzed 10 years of the U.S. Coast Guard’s accident and fatality statistics and noted how this data compared to the existing National Boating Education Standards. The

advisory committee and the researchers were able to link the available statistics to almost all of the Standards, thus justifying their existence and continued presence in the document. In addition, a number of Standards were modified, combined, or reworded to emphasize key points related to the statistics. Along with revisions made in the Standards, the testing standards were also changed with regard to the weighting of the Standards found in the test questions. The advisory committee determined that a number of Standards should not be included in the test even though the content found within these questions would still be included in the course. This will ensure that the test focuses more on the information that boaters need to know in order to be safe on the water and less on the information that has not been shown to lead to accidents and/or fatalities within the statistics. The final version of the revised standards was approved by the 2009 Standards Advisory Board, the Education & Awareness Committee and was approved by the overall membership of NASBLA on September 28, 2009.

## Intended Audience

These standards were developed for use by boating education course instructors, boating education text authors, and other boating education professionals who intend to submit course materials for NASBLA review and approval. It is anticipated that materials submitted for NASBLA-approval based on these standards will require few revisions. It is hopeful that this document will clearly communicate with prospective authors what must be included to provide a minimum standard of care, resulting in a more efficient course review process. Additional course submission materials can be found on the NASBLA website.

## Applicability and Definitions

These standards apply to courses for operators of recreational motorized boats and sailboats. These standards identify the core topics that must be covered in boating safety courses for general motorized boating and personal watercraft (PWC) courses. It is recognized that there are different types of boating courses with different target audiences and additional standards have been developed to address the needs of the paddlesports community. The Paddlesports Standards are available on the NASBLA website.

The standards use the term, “course,” to refer to all components of a boating education course, including instruction, texts, supplemental materials, web pages and tests. A boating course may be presented in various formats, including classroom instruction, home study, video, distance learning, CD-ROM, online or any combination of these formats. “Boat” is used to refer to all types of recreational watercraft. It is expected that any unique words or terminology used in the courses being submitted will be clearly defined in the course materials.

## Minimum Standards

These standards were intended to convey to organizations and individuals the **minimum body of knowledge that must be included in a short, 6-8 hour, boating education classroom course**. Instructors, text authors, boating professionals, and organizations are encouraged to go beyond the standards when in their judgment and experience it assists the boat operator to boat more safely. In addition, the standards are intended to show just the minimum content of the course materials, not the sequence or organization of the material. Although the standards are organized in a particular way, course/text developers are welcome to organize their information as they prefer.



## **Required Materials for NASBLA Review**

It is assumed that the standards will be met in various ways and that materials submitted to NASBLA may include course texts, supplemental texts, instructor guidelines or outlines, and handout materials. State-specific and localized information that is relevant to the particular course audience may be provided through any of these media (see standard 8.2 for the required content of this material). To assist in the determination of whether the standards are met, the learning objectives and exams must be included in the package of materials submitted to NASBLA for review. Additional information on the materials required for submission of a course for review can be found on the NASBLA website.

### **Accuracy Requirement**

It is mandatory that all information contained in course materials receiving NASBLA-approval be factually correct. In addition, by submitting a course for review and approval, the applicant represents and warrants to NASBLA that all course content is either (a) original materials, including all texts, pictures, drawings and other intellectual content, or (b) material which is in the public domain and is not subject to copyright(s) held by others.

# The National Boating Education Standards

**NASBLA-approved boating education courses and texts will address at least the following minimum standards:**

## The Boat

### Standard 1.1 - Boat Capacities

The course will describe how to determine acceptable loading based on locating and determining a boat's gross load capacity (total weight and # persons) from the boat capacity plate and horsepower recommendations. PWCs or other boats without capacity plates should reference the owners' manual and state laws.

Rationale- A boat operator must be able to avoid capsizing situations by adhering to boat capacity limits and maintaining proper distribution of the weight in the boat for safe operation. U.S. Coast Guard accident statistics indicate that capsizing is a leading cause of fatal accidents. Many capsizing incidents have resulted from improperly loaded or overloaded boats.

### Standard 1.2 - Boat Registration Requirements

The course will describe:

1. that all motorized boats and many other boats are required to be registered (check state requirements),
2. requirements for hull identification number,
3. the required certificate of number (registration documentation), and external display of numbers,
4. the requirements for federally documented vessels,
5. reciprocity regulations, and
6. registration requirements in the boat's state of principal use.

Rationale- Registration and numbering violations are one of the top reasons for citations or arrests. Understanding the legal requirements for boat registration will help boaters to avoid unnecessary violations and resulting fines. Most states and territories require registration of powered vessels and many also require registration for non-powered vessels. Penalties for failing to register a vessel may involve paying a fine as well as the possibility of serving jail time.

## Boating Equipment

### Standard 2.1 - Personal Flotation Device Types and Carriage

The course will explain that there are different classifications, types and sizes of U.S. Coast Guard approved personal flotation devices (PFDs), including inflatable life jackets and throwable Type IV devices, and will feature examples of their respective uses, advantages, and disadvantages based upon the activity for which they are intended. The course will also describe the number and types of PFDs/life jackets that must be carried aboard the boat according to applicable regulations, discuss and clarify label restrictions, and emphasize that the best life jacket is the one that will be worn all the time.

Rationale- U. S. Coast Guard recreational boating statistics show approximately seventy (70) percent of all fatal boating accident deaths are caused by drowning. Of those who drowned, approximately ninety (90) percent of the victims were not wearing their life jacket. Citations and fines are issued to boat operators who fail to carry sufficient PFDs/life jackets or are found carrying improper PFDs/life jackets for the number and types of passengers on board. It is important for boaters to understand that some PFDs are also referred to as life jackets and that they can be designed for different uses or activities, such as inflatable PFDs. It is also important for boat operators to read and understand the information on the PFD/life jacket label and apply that to the intended wearer. The best life jacket is the one people will wear.

## **Standard 2.2 – Personal Flotation Device Sizing and Availability**

The course will communicate that PFDs/life jackets must be readily accessible and correctly sized for the persons using them.

Rationale- Capsizing and falls overboard account for over half of all boating fatalities. All boat occupants must know where the PFDs/life jackets and throwable Type IV devices are located and how to use them. Participants need to understand that PFDs/life jackets are designed for various uses/activities, the advantages and disadvantages of different styles, and how to adjust various types for themselves and other passengers.

## **Standard 2.3 - Wearing Personal Flotation Devices**

The course must: inform boat operators of the importance of wearing PFDs/life jackets at all times; show passengers how to correctly put on their PFDs/life jackets and tell them to wear them; emphasize the need to be aware that conditions can change quickly while boating (i.e. weather and water conditions, boat traffic, etc.); address the difficulty of putting on a PFD/life jacket in the water while under distress; and include state or federal regulations pertaining to children wearing PFDs/life jackets aboard recreational watercraft.

Rationale – It is essential that boater safety education repeatedly emphasize the importance of always wearing a PFD/life jacket. Research has shown most drownings associated with recreational boating might not have occurred if the person had been wearing a PFD/life jacket. In fact, in a recent 10 year period, PFDs/life jackets were not worn in 82% of all fatal accidents. Today's PFDs/life jackets are truly wearable and new designs allow more comfort and maneuverability for every boating activity. Wearing a PFD/life jacket at all times is the single most important behavior that a boater can do to be safe and prevent drowning: Once a person enters the water, it is almost impossible to put on a PFD/life jacket.

## **Standard 2.4 - Personal Flotation Device Serviceability**

The course will describe the characteristics of serviceable (good) PFDs/life jackets and when to replace PFDs/life jackets due to excessive wear or damage. Special attention must be given to the maintenance of inflatable PFDs/life jackets as per manufacturer recommendations.

Rationale - PFDs/life jackets are often subjected to rough handling, ultra violet sunlight, and improper storage. These conditions reduce the ability of the PFD/life jacket to perform its intended function. The operator should be able to distinguish serviceable PFDs/life jackets and identify

the key conditions that necessitate replacing the PFD/life jacket. Regular maintenance checks are essential to ensure the proper functioning of all PFDs/life jackets and especially the inflatable PFD/life jacket.

### **Standard 2.5 - Fire Extinguisher Equipment**

The course will describe the legal requirements for fire extinguishers on recreational boats, the kind of fire extinguishers needed for different types of fires, the importance of placing fire extinguishers in a readily accessible location, and the need for regular inspection of fire extinguishers.

Rationale -U.S. Coast Guard requirements specify the number and types of fire extinguishers that must be carried for class “B” fires on boats of various sizes. Boat operators must be able to respond quickly in the event of fire. Anticipating the emergency by outfitting the vessel with the appropriate equipment and understanding how to use it reduces exposure to danger.

### **Standard 2.6 - Back-Fire Flame Control Device**

The course will describe the purpose and maintenance of a back-fire flame control device (a required device on all enclosed engines with a carburetor).

Rationale - The U. S. Coast Guard requires that boats with gasoline engines be equipped with an acceptable means of backfire flame control.

### **Standard 2.7 – Ventilation Systems**

The course will discuss the ventilation system requirements for different types of boats.

Rationale – The U. S. Coast Guard requires that all recreational boats which “use gasoline engines for electrical generation, mechanical power or propulsion” must be equipped with a ventilation system. Gasoline vapors can collect in the bilge and explode. “Boat owners are responsible for keeping their boats’ ventilation in operating condition.”

### **Standard 2.8 – Navigation Light Equipment**

The course will cover the navigation light requirements for recreational boats from applicable sections of Navigation Rules (Part C) as summarized in Federal Requirements and Safety Tips for Recreational Boats.

Rationale – Recreational boats are required to display navigation lights between sunset and sunrise and during periods of reduced visibility. Boating accident statistics indicate that nighttime accidents account for a significant proportion of total boat collisions. Boat operators who know and follow navigation and anchorage light requirements can help reduce nighttime collisions. Many of the navigation rules are devoted to navigation lights. The U.S. Coast Guard website ([www.uscgboating.org](http://www.uscgboating.org)) provides a summary of the most relevant lighting requirements for recreational boaters.

### **Standard 2.9 - Sound Signaling Equipment**

The course will describe the types and use of sound producing devices required on recreational boats.

Rationale– Sound producing devices are required equipment on recreational boats. In certain boating conditions, boat operators must be able to alert other boats to their presence or operation intentions. The number one type of reported boating accident is “collision with another vessel.” Boating safety courses should demonstrate how sound producing equipment can be used to prevent collisions by signaling intentions to other recreational watercraft, and commercial and military vessels.

## **Standard 2.10 – Visual Distress Signal Equipment**

The course will describe the types and use of visual distress signals required on recreational boats operating on coastal waters and adjoining rivers two (2) miles or more wide at the mouth and up to the first point the river narrows to less than two (2) miles as summarized in Federal Requirements and Safety Tips for Recreational Boats.

Rationale – Visual distress signals provide an effective means for the recreational boater to alert others of a boater in distress. In those situations where radio communications are ineffective, a boater may have no other means to gain the attention of another boater, or persons on shore, of their situation. Proper use of flare devices provides an important visual distress signal. Numerous boaters in distress have successfully signaled for assistance using flare devices.

# **Trip Planning and Preparation**

## **Standard 3.1 - Checking Local Weather and Water Conditions**

The course will describe how to make informed boating decisions based on forecasted local weather, water conditions, boater skill level, vessel range and capability pertinent to those conditions. It will describe dangerous weather (i.e., strong wind, storms, lightning, hurricanes, fog) and water conditions (i.e., high water, sand bars, currents, large waves) and their importance in trip planning.

Rationale - Boat operators must know the importance of getting, understanding, and using weather reports or reading weather changing signs in the sky in order to make an informed judgment about possible changing water conditions as they pertain to their boating skill and experience. It is the responsibility of the operator to decide to continue or make adjustments to the trip. Most accidents occur on calm, clear days. However, poor weather in combination with operator skill level and unexpected emergencies can accelerate the danger to operators and passengers.

## **Standard 3.2 - Checking Local Hazards**

The course will describe how to obtain information about local hazards that may impede the safe operation of a recreational boat.

Rationale - It is important for the boat operator to become familiar with where to get local hazard conditions information and not become complacent with his/her knowledge of local hazards; hazards are ever changing in every type of water system (i.e. lakes, ponds, rivers, oceans, etc.). Types of hazards to be discussed should be state specific (i.e. low-head dams, rapids, sudden winds, tides, sand bars, currents, white water, overhead cables, bridges, waves, heavy boating traffic, etc.).

### **Standard 3.3 - Filing a Float Plan**

The course will describe the importance of notifying someone of your boating plans and the basic information that should be included.

Rationale - Float plans act as a rescue tool for authorities in the event of an accident. Rescue authorities can respond faster and more efficiently if a float plan has detailed information about the time of departure, expected destination, boat description, how many people are on board, course, and time of expected return. Float plans can be communicated through paper plans, telephone conversations, electronic emails, text messages or other forms of communication.

### **Standard 3.4 - Boat Preventative Maintenance**

The course will communicate the need for regular inspection and maintenance of the boat and its key components (e.g., through-hull fittings, motor, electrical system, fuel system).

Rationale - Keeping a boat in good working order is as much a part of the boating experience as boating itself. Negligence in maintaining a boat may lead to an unsafe or disastrous experience. In the last few years, 8% of vessels in reported accidents involved boat equipment/maintenance related factors. In addition, 4% of all fatalities were due to boat equipment/maintenance related factors.

### **Standard 3.5 – Transporting and Trailering**

The course will describe procedures to prevent trailering accidents and resulting injury and property damage. The course will cover safe trailering procedures including: 1) safe towing preparation, 2) road handling factors when pulling a trailer, 3) launching a boat, and 4) retrieving a boat from the water.

Rationale – The majority of recreational boats in the U.S. are trailered to and from the water. Neglecting the trailer's maintenance can result in damage to a boat, the towing vehicle, or both, as well as create a hazard for other boats and vehicles. Good trailering skills can help boaters avoid accidents and reduce conflicts on boat ramps.

### **Standard 3.6 - Fueling Procedures**

The course will provide information on proper procedures for fueling, ventilation during fueling, and protection of the marine environment during fueling.

Rationale - Gasoline vapors can explode. Ignition of spilled fuel vapors continues to cause injuries and fatalities. The probability of explosion can be reduced by following safe fueling procedures. Use of ethanol fuels in equipment not designed for these fuel types can result in equipment malfunction.

## **Standard 3.7 - Pre-Departure Checklist & Passenger Communication**

The course must describe the importance of using a pre-departure checklist and conducting an onboard safety discussion with passengers. Passengers should be informed about the location and use of PFDs/life jackets (and shown how to put them on), fire extinguishers, flares and first-aid kit; the discharge and management of waste procedures; anchoring procedures; emergency radio operation (if applicable); storm/rough weather procedures; line handling; emergency boat operation; and falls overboard procedure.

Rationale - Boat operators should inform passengers about the importance of wearing PFDs/life jackets at all times, and make passengers aware of other relevant safety information to prevent accidents, increase their safety, and reduce response time in the event of an emergency. Boat operators should also conduct a mock training with passengers to demonstrate how to put on PFDs/life jackets in difficult conditions, use the radio, get the anchor down, and respond to man-overboard incidents, so they understand and know what to expect in emergency situations.

## **Marine Environment**

### **Standard 4.1 – Environmental Laws and Regulations**

The course will describe the environmental laws and regulations concerning littering (e.g., garbage and plastic), waste management plans, and display of information placards (where applicable) and aquatic nuisance species.

Rationale - Boat operators should remember that water pollution ruins not only the aesthetic beauty of the area, but harms human life, marine life and damages boating equipment. The degree and amount of garbage adrift on our coastal waterways continues to increase. Plastic, which many species mistake as food, is a big threat to marine life. Birds are found entangled in plastic rings, fishing line, or nets. Various federal and state laws prohibit throwing, discharging or depositing any sort of refuse matter in the waters of the U.S. Other acts require boats of various sizes to display placards and keep records of their refuse disposal. A person who violates any of the requirements is liable to civil penalties, fines, and imprisonment. Regional, state, and local laws may also have specific restrictions on refuse disposal.

The spread of aquatic nuisance species (ANS) by recreational boaters is an increasing concern across the country. Milfoil, zebra mussels, quagga mussels and other ANS are being increasingly regulated by states to prevent their spread, with specific regional, state and local laws.

### **Standard 4.2 - Human Waste Disposal**

The course will describe the proper procedure for disposal of human waste from recreational boats and how to identify no discharge zones and pumpout station locations.

Rationale - It is illegal to discharge raw sewage from a vessel within territorial waters (within the three-mile limit), the Great Lakes, and navigable rivers. Recreational boats are not required to be equipped with a toilet. However, the Clean Water Act requires that, if a toilet is installed, it must be equipped with a U.S. Coast Guard approved and operable Marine Sanitation Device (MSD).

### **Standard 4.3 – Disposal of Toxic Substances**

The course will describe procedures for the prevention of spills and improper disposal of toxic substances such as fuels, oils, and cleaning products into the marine environment and the associated fines for non-compliance.

Rationale – Oil residue tends to build up in the bilges of boats and can easily be discharged directly in the water. The federal Water Pollution Control Act prohibits the discharge of oil or hazardous substances into navigable waters. Powerboats must have the capacity to retain oily mixtures on board and to transfer them to an approved reception facility.

## **Safe Boat Operation**

### **Standard 5.1 - Operator Responsibilities**

The course will describe a boat operator's ultimate responsibility for operator proficiency, situational awareness, safety of boaters aboard and anyone coming into contact with the boat, and all activity aboard the boat. This responsibility extends to other water users and includes but is not limited to: controlling boat speed; obeying no wake/limited wake restrictions; refraining from careless, reckless, or negligent operations on the water; controlling boat noise; abiding by other general boater courtesy; and observing and operating in accordance with homeland security measures. Homeland security measures include: keeping a safe prescribed distance from military and commercial ships; avoiding commercial port operations areas; observing all security zones; and observing and reporting suspicious activities to proper authorities. The course should indicate that it is but the beginning of the boater's education and that other courses are available.

Rationale – Boaters need to respect the rights of other people who live, recreate, or work on the water. On average, three-quarters of all reported boating accidents and half of all fatalities involve operator controllable factors. The most common types of such factors include careless or reckless operation, operator inattention, operator inexperience, excessive speed, loading and movement of passengers and gear, and failure to maintain a proper lookout. It is critical that all boaters be aware of and comply with current Department of Homeland Security measures and any other relevant regulations. .

### **Standard 5.2 - Influence of Drugs and Alcohol on Boat Operation**

The course will describe the effects of drinking alcohol or using drugs while boating, and the boating laws pertinent to operating a boat while under the influence.

Rationale – Alcohol use plays a major part in the number of boating accidents, and especially, fatalities. It is illegal to operate a boat while under the influence of alcohol or drugs. Moreover, alcohol is a stressor and significantly increases the effects of other conditions related to being out on the water (sun, wind, fatigue, etc.) These conditions significantly compound the effects of alcohol and drugs. Passengers who are drinking should be especially encouraged to wear life jackets.



## **Standard 5.3 - Navigation Rules**

This course will describe basic safe boating operation and good seamanship for recreational boaters. It is designed to assist the recreational boater when encountering typical navigation rules of the road situations. Although you are responsible to be knowledgeable of the Navigation Rules in their entirety, this course will focus on only the following Inland Rules\*:

\*In those states that Inland Rules do not apply, the equivalent International, Western Rivers or Great Lakes rule(s) may be substituted by the Course Provider.

Standard 5.3.1 - Rule of responsibility – Rules 2(a) and 2(b)

Standard 5.3.2 - Proper lookout – Rule 5

Standard 5.3.3 - Safe speed – Rule 6(a)

Standard 5.3.4 - Collision avoidance rules

Rules 7(a), 7(d), 7(d)(i), 7(d)(ii); Rule 8; Rules 13(a), 13(b); Rule 16; Rule 17; Rule 18  
Inland Rules 14(a), 14(b), 14(c), Rule 15(a)

Standard 5.3.5 - Restricted visibility - Rules 19(a) through (e)

Standard 5.3.6 - Disclaimer

“The navigation rules contained in this course summarize basic navigation rules for which a boat operator is responsible on inland waterways. Additional and more in-depth rules apply regarding various types of waterways, such as International Waters and Western Rivers, and operation in relation to commercial vessels and other watercraft. It is the responsibility of a boat operator to know and follow all the navigation rules. In those states that Inland Rules do not apply, the equivalent International, Western Rivers or Great Lakes rule(s) may be substituted by the Course Provider.

“For a complete listing of the navigation rules, refer to the document “Navigation Rules” published by the U.S. Coast Guard (COMDTINST 16672.2 Series) and available through the U.S. Government printing office or on the web at <http://www.uscg.mil/vtm/navrules/navrules.pdf>. For State specific navigation requirements, refer to the state laws where you intend to boat.”

Rationale -. Recreational boaters must operate according to established navigation rules such as those mentioned above. Yet, each year, U.S. Coast Guard boating accident statistics show that there are numerous violations of the navigation rules by recreational boaters. The most common violations are caused by excessive speed, not maintaining a proper lookout, or not following other established navigation rules.

## **Standard 5.4 - Aids to Navigation**

The course will describe the Federal U.S. Aids to Navigation (USATONS) and the Uniform State Waterway Marking System (USWMS). The course must provide information about regulatory/informational markers (identified by orange bands on the top and bottom of each buoy) used to advise of situations, dangers, or directions indicating shoals, swim areas, speed zones, etc.

Rationale - Citations are regularly issued due to failure to obey regulatory markers. In order to navigate safely from place to place on the water, boat operators must depend on signs just as we do on land. Aids to navigation are the road signs of the water. There are two systems of marking the waterways in the United States – U.S. Aids to Navigation (USATONS) and the Uniform State Waterway Marking System (USWMS). USATONS is a system prescribing regulatory markers and aids to navigation that mark navigable waters of the United States. USWMS is a system that prescribes regulatory markers and aids to navigation for navigable state waters. The USWMS may also mark the non-navigable internal waters of a state.

## **Standard 5.5 - Docking and Mooring**

The course will describe common practices for docking and mooring a boat relative to boat size, type of boat, location, weather, and current.

Rationale – Significant boat/property damage, accidents and injuries result from docking and mooring of boats in marinas and boat ramp areas, particularly in adverse weather conditions. Docking techniques, including the use of lines and fenders, vary depending on wind, current, location, degree of boat traffic in the harbor, type of boat, size of boat and skills/abilities of the boater and crew.

## **Standard 5.6 - Anchoring**

The course will describe the importance of carrying an anchor, the selection of anchors, related ground tackle, and their use for different types of boats in various boating conditions. The course must describe procedures for anchoring, use of anchors as safety devices in emergency situations, and the hazards of stern anchoring.

Rationale – Anchoring skills and decisions of where to anchor, as well as where not to anchor (e.g. busy channel), can make the difference between a successful and unsuccessful boating experience. Significant property and environmental damage can occur when improperly anchored boats slip anchor and drift into reefs, boats, marinas, or run aground. Knowing how to anchor is one way to reduce or avoid other causes of accidents.

## **Standard 5.7 – Carbon Monoxide**

The course will describe the dangers, symptoms, and avoidance practices associated with carbon monoxide (CO) poisoning in recreational boating.

Rationale – Carbon monoxide is an odorless, colorless, tasteless gas that can be toxic in even small quantities. It is produced by engines, generators, grills and other equipment commonly used by boaters. Every year people who recreate on and around boats are overcome by the effects of carbon monoxide. Recreational boaters need to be aware of carbon monoxide poisoning prevention practices such as regular professional boat inspections; the installation and maintenance of marine rated carbon monoxide detectors in living spaces; trusting the detector when the alarm is sounding; the hazards of “teak surfing”; exhaust leaks from CO sources, such as engines, generators, grills and propane appliances; specific boat design features of concern;

and the danger of swimming near the stern of the watercraft while generators, engines or other carbon monoxide producing equipment is in operation.

## **Standard 5.8 – Propeller Intervention & Awareness**

The course will describe the dangers, unsafe activities, safety equipment, and avoidance practices to mitigate or prevent propeller strikes in recreational boating.

Rationale –The U.S. Coast Guard recreational boating statistics on fatalities and injuries support the need for a comprehensive education standard, as propeller incidents represent annually 4 percent of all fatalities, with a growing number of injuries. Since the danger is not readily visible to boating participants, the boat operator and passengers may not recognize or consider the consequences of accidental or inadvertent contact with propellers.

Motorboat propellers can inflict severe, devastating injuries that result in death, loss of extremities, severe permanent deformity, disfigurement, and/or disability. Common propeller strike scenarios are man-overboard and/or the “circle of death” from runaway vessels due to the unexpected loss of the operator. Every year people who recreate on and around boats are struck by the propeller of their boat or another boat. Even propellers in neutral or at rest can cause serious injuries.

## **Emergency Preparedness**

### **Standard 6.1 - Rendering Assistance**

The course will explain that, according to the Navigation Rules, boat operators are required to render assistance to a boat in distress to the extent they are able.

Rationale – In the event of an emergency, individuals in charge of a vessel are required to provide assistance so far as they can do so without serious danger to their own vessel or the individuals on board their vessel. Assistance from other boaters can reduce the loss of life, injury or property damage resulting from boating accidents.

### **Standard 6.2 – Capsizing/Falls Overboard**

The course will describe how to prevent and respond to these emergencies. The prevention responses will include at least the following: stay centered and low, avoid standing and sudden moves, maintain three points of contact, never overload, balance your load, and avoid rough water. The responding procedures will include at least the following: wearing PFDs/life jackets, taking a head count, staying with the craft when appropriate, signaling for assistance, using improvised floating aids, and initiation of procedures to recover people in the water.

Rationale – Capsizing and falls overboard emergencies are consistently the leading causes of boating fatalities. Overloading, shifting of loads, and passenger movement on smaller craft contribute to most of the capsizing/falls overboard accidents. Boat operators must take action to prevent themselves and their passengers from falling overboard. In addition, boat operators need to provide sufficient instruction to their passengers on how to assist in the quick recovery of persons

in the water in various water conditions, water temperatures and watercraft. Procedures could include throwing them a Type IV PFD or any other immediately available floating aid. This issue highlights the need for boater education courses to stress prevention of falls overboard, wearing of PFDs/life jackets at all times, and the proper response/action in a capsizing/fall overboard emergency.

### **Standard 6.3 – Cold Water Immersion and Hypothermia Prevention**

The course will describe the dangers of cold water immersion and hypothermia, including prevention and the physiological impact of cold water immersion, including information on the various stages which include initial reaction (involuntary gasp reflex), short-term immersion/swimming failure, long-term immersion/immersion hypothermia, and post-rescue collapse.

**Rationale** –Capsizing and falls overboard into cold water account for a high number of boating fatalities. Boaters’ risk of dying increases with colder water temperatures. Sportsmen who hunt or fish from boats in cold weather are at greater risk of fatalities from capsizing or falling overboard. Water temperature varies by season and location, but the water does not have to be exceptionally cold for someone to experience the effects of cold water immersion. Researchers (Golden and Harvey 1981) identified four distinct stages in which a person immersed in cold water may become incapacitated and die. Boaters who understand the physiology of cold water immersion, understand the behaviors and conditions that cause immersion events (such as reaching overboard and improper loading), are adequately prepared for a cold water immersion event (such as wearing life jackets and carrying communication devices), and understand the decisions that should be made during such an event, have a greater chance of avoiding cold water immersion or surviving if it does occur.

### **Standard 6.4- Fire Emergency Preparedness**

The course will describe procedures to prevent and respond to boating fires such as proper use of fire extinguishers and basic knowledge of fire suppression principles.

**Rationale** - The potential for catastrophic emergencies from fire requires that boat operators take measures to prevent and be prepared to deal quickly and efficiently with fires. A key to understanding fire suppression is to know that eliminating one of the fire’s key ingredients, fuel, oxygen, or heat, can extinguish the fire.

### **Standard 6.5 - Running Aground Prevention and Response**

The course will describe how to prevent and respond to running aground for recreational boats.

**Rationale** – According to the U.S. Coast Guard statistics, groundings have accounted for a number of fatalities, injuries, and millions in property damage every year. Preventing running aground is an important boat operator competence. Following proper procedures in the event of a grounding can reduce or minimize fatalities, boat damage, submerged object damage, and responses by public and private entities for salvage operations.

## **Other Water Activities**

### **Standard 7.1 – Personal Watercraft and other Jet Propelled Watercraft**

The course will inform all boat operators about safe boating practices, operational characteristics and special accident risks unique to personal watercraft (PWC) such as: PWC handling characteristics/stability; off throttle steering; stopping (including braking and reverse systems); re-boarding a PWC; and the use of a lanyard cut-off switch.

Rationale - Recreational boaters share waterways with personal watercraft or may themselves be operators of personal watercraft. Many states and local areas have laws and regulations specific to PWC operation and safety. Boating operators must understand PWC characteristics and regulations in order to boat safely and legally.

PWCs are operated differently from other boats, and each PWC model has its own unique characteristics. PWC operators need to consult their owner's manual and understand the handling characteristics of personal watercraft. PWCs are highly maneuverable. The jet drive propulsion system is extremely responsive to slight steering turns. This responsiveness in maneuvering can encourage operators to attempt maneuvers that are dangerous and beyond the safe operation of the PWC. Further, some PWCs completely lose the ability to steer when the operator releases the throttle. Newer technology reduces the off-throttle steering loss. Operators must be able to re-board the PWC in deep water after falling off. This is most easily done from the rear (stern) of the craft. This maneuver is more challenging when the operator is tired or hindered by water conditions. A properly used lanyard cut-off switch stops the PWC when the operator falls overboard, preventing the operator from being stranded or the PWC running uncontrolled. Knowing how to effectively handle a PWC takes practice. New operators should practice their skills with an experienced operator who can guide them on controlling the PWC and making safe boating decisions.

A review of boating accident reports indicates that PWCs are involved more frequently in certain types of accidents (collisions with other vessels or hazards). The course will provide information on these common accidents and how to prevent them such as: maintaining a proper lookout when turning (look all around and behind before turning); maintaining a proper distance from other boats and hazards; and making sure that all operators, not just the owners of the PWC, have proper knowledge and skill to operate the PWC.

### **Standard 7.2 - Water Skiing, Towed Devices and Wake Sports**

The course will describe procedures to follow when pulling water skiers, towing anyone behind a vessel, or allowing anyone to participate in an activity using the wake of the vessel (wake boards, tubes, etc.).

Rationale – The forces generated by water skiers and their possible trajectory in a fall necessitate that each boat maintain as much distance as possible with a minimum of a 200-foot wide “ski-corridor” (100 feet on either side of the boat and behind the skier). “Skier mishaps” has been consistently listed in the top five types of boating accidents as measured by total number of boats involved. Emphasis should be placed on all towed water sports and any towed device that has the potential to become airborne.

### **Standard 7.3 - Diving and Snorkeling**

The course will describe how to recognize a diver down flag and the legal requirements for operating a boat in the vicinity of snorkeling or scuba diving activities.

Rationale – Recreational boats can present a hazard to divers in the water. Federal and state navigation rules require that diving flags be displayed during diving activities and that boaters in the area keep a safe distance from the flags.

### **Standard 7.4 - Hunting & Fishing**

The course will inform people who fish and hunt from boats that they are boaters and need to follow safe boating practices. Information must be provided about accident risks unique to this group of recreational boaters.

Rationale - Anglers and hunters often don't consider themselves boaters and thus pay little attention to learning and observing boating safety rules. Approximately one-third of all boating fatalities occurred on trips involving fishing activities. Likewise, more hunters die each year from drowning and the effects of cold water shock and hypothermia than from gunshot wounds. Many water-based hunting and fishing accidents occur from actions as simple as falling overboard while standing up to cast a line or while reaching for a decoy and other accidents are caused when the boat capsizes from an unbalanced load. However, many of the fatalities could have been prevented if the sports enthusiast had been wearing a life jacket.

### **Standard 7.5 – Paddlesports and Small Boats**

The course will describe that all boat operators, including paddlers and small boat operators, should be aware of their interactions around paddle boats, including the effect of motor boat wakes on paddle boats, other smaller boats and swimmers.

Additionally, the course should provide information about the unique considerations for paddle sport boats and safety procedures including: being prepared to enter the water, knowing how to swim and how to effect self rescues in rivers/currents and other moving water conditions (strainers, low head dams, unusual high water conditions); how to load the boat properly and move around in the boat (e.g. keep the weight centered both from side to side and bow to stern).

Rationale – Since paddle sport fatalities occur across the range of canoeing and kayaking activities, education efforts should continue to be directed to all segments of the paddle sports community. Analysis of recent paddlesport accident statistics identified the following priority problem areas: the vast majority of all paddling related fatality victims were not wearing a PFD/life jacket at the time of the accident; occupant movement and weight shift within a canoe played a major role in roughly 50 percent of all canoeing accidents; approximately 50 percent of canoe and kayak related fatalities were fishing at the time of the accident; at least 25 percent of victims in fatal canoeing accidents are believed to have consumed alcohol immediately prior to the accident. More information on this topic is provided in the NASBLA Paddlesports Education standards.

## **State Specific Requirements and Continuing Education**

## **Standard 8.1 - Continuing Education**

The course will outline the need for additional boating safety education and staying informed of changes in boating safety requirements.

**Rationale** – It is important for boat operators to understand that one of their responsibilities is to keep up-to-date with new developments in boating laws and safety information. State laws vary with regard to licensing, equipment requirements, accident reporting procedures, etc. Thus, boaters must be aware of the rules in the states in which they are operating in addition to those in their home state. The boating equipment and safety information available to boat operators is constantly changing and improving. Boat operators who stay abreast of these changes will be ready for new situations, thus improving their own boating enjoyment as well as the safety of all boating participants. Skills based and/or advanced courses involving navigation, piloting, etc., are also available.

## **Standard 8.2 - State Specific Boating Information**

The course will contain (as part of the text or a separate handout) state specific information in regard to boating laws/regulations and local boating conditions. The course will include the following topics as applicable:

- 8.2.1 - registration and titling requirements such as number of years registration decals are valid, expiration date of registration, decal placement.
- 8.2.2 - laws for required wearing of PFDs/life jackets for children, certain types of boats, and for special boating activities such as personal watercraft, skiers and others being towed.
- 8.2.3 - additional equipment requirements such as anchor, lanyard, bailing devices, visual distress signals.
- 8.2.4 - mufflers and noise levels.
- 8.2.5 - requirements for waste discharge, no discharge zones, and litter laws.
- 8.2.6 - special requirements for mandatory education, licensing, rental operation, and proficiency test certifications.
- 8.2.7 - age/horsepower restrictions and adult supervision requirements for children.
- 8.2.8 - laws further defining careless, reckless, unsafe, and negligent operations such as becoming airborne and operating less than specified distances behind a water skier.
- 8.2.9 - boat speed limits and operation in zoned and restricted areas.
- 8.2.10 - laws on operating under the influence of drugs and alcohol such as implied consent and BAC levels.
- 8.2.11 - law enforcement officer authority and boater responsibility to comply.
- 8.2.12 - boat accident reporting requirements including how, when, and where to file the report. Accident reports are legally required when the accident involves: 1) disappearance or loss of life; or 2) personal injury requiring medical treatment beyond first aid; or 3) property damage in excess of current state or federal thresholds; or 4) complete loss of the boat
- 8.2.13 - a state approved boating accident report form or U.S. Coast Guard form.
- 8.2.14 - other laws or regulations as required by the state approving authority.

**Rationale** - All courses submitted to NASBLA for approval need to include state-specific information and provide supplemental materials and instruction to meet the intent of this requirement. Standards 8.1 and 8.2 will need to be reviewed and accepted, endorsed, or recognized by each state in which the course will be taught. NASBLA approval is not complete without gaining the acceptance, endorsement, or recognition of at least one state through the state's review of Standard 8 materials.

## **Course Format and Assessment Requirements**

### **Standard 9.1 – Boat Operator Knowledge Course Designs**

All courses submitted for NASBLA review must be in a written format that can be easily reviewed by NASBLA. All distance learning and home-study programs must be presented to students in paragraph format. Classroom courses provided by state agencies may be in either paragraph format or instructor outlines.

Rationale –Distance learning is thought of here as a wide range of learning formats usually involving the use of technology that includes Internet courses, teleconferencing, and interactive video. Home study courses are usually thought of as an individual taking the initiative to learn material at their own pace. Consultations with researchers in the field confirmed that boat operator knowledge could be learned in many ways. Any well conceived course design for learning boat operator knowledge that results in the individual acquiring the essential knowledge is appropriate to submit for NASBLA review.

### **Standard 9.2 – Boat Operator Knowledge Assessments**

In order to receive NASBLA approval, all assessments, whether administered as part of a course of study or as independent exams, must be submitted for review.

Standard 9.2.1 – The assessment must be well designed and comprehensive in covering NASBLA’s standards for boat operator knowledge. Well designed comprehensive assessments evaluate boat operator knowledge equally well as an independent exam or as an exam at the end of a course.

Rationale – Well-designed comprehensive assessments, whether administered as part of a course of study or independently as a challenge test, are equal. Experts in educational testing recommend that the assessment equally measures boat operator knowledge however it was obtained. A well-designed assessment covers the entire body of knowledge as outlined by the National Boating Education Standards however, certain standards carry more importance and should receive more attention within the assessment.

Standard 9.2.2 – Each assessment submitted for review must be accompanied with a plan that explains how the test administrator will seek to maintain assessment integrity. The plan must address security issues commensurate with the purpose of the exam and perceived opportunity to commit assessment fraud. (See NASBLA application Appendix C for additional details on the examination plan)

Rationale – It is essential that assessment security be designed to be appropriate for the exam purpose and the context of the assessment. Assessment security plans might address procedures such as: confirming the identity of the assessment taker; randomizing assessment items; using different versions of an assessment; observing assessment takers during the assessment; protecting the security of the assessment item answers; using distinctive, hard to duplicate certificates; maintaining assessment taker records; etc. Rather than mandate a single assessment security procedure for all assessments regardless of format or context, reviewing assessment security plans provides NASBLA with the opportunity to determine appropriate levels of security for



varying levels of assessment circumstances. Assessment security can be thought of as an escalating series of procedures that respond in kind to potential threats to assessment integrity.

Standard 9.2.3 – If a classroom or home study course presents more than one assessment to the same student, the subsequent assessments will be constructed such that at least 50 percent of the questions differ from the previous assessment or will use a different NASBLA Test Form. A question will be considered to be the same as another question if it has substantially the same stem and the same set of distractors as the question it is replacing.

Standard 9.2.4 – The final step in the NASBLA approval process is the inclusion of a well-designed and comprehensive assessment using professional assessment procedures. The NASBLA assessment standards for item writers are as follows:

#### ASSESSMENT STANDARD 1

Each item in the assessment will be a four-option multiple-choice question composed of a premise (or stem); a key (or correct alternative); and three distractors (or incorrect alternatives).

- A. A premise that states an opinion of an author or source, rather than reflecting a fact or principle, should use the statement, “According to. . . .”
- B. The alternatives must be in a logical order if one exists. Alternatives beginning with the same words should follow each other.
- C. A test item must be a grammatical and logical completion of the premise or a concise reply to the question asked.
- D. Avoid overlapping alternatives.
- E. Alternatives must not combine options such as ‘all of the above’, ‘none of the above’, ‘a and b’, or ‘(1) or (2).’
- F. When possible, avoid developing questions using negative words, i.e.: no, not, never. Also, NEVER use double negatives.
- G. Avoid repeating information in all the alternatives that can be included in the premise.
- H. Alternatives should not be distinguishable from the correct answer based on length.
- I. Each test item must be linked to a NASBLA Standard.
- J. The test should include clearly written directions to the candidates on how to respond to the questions.
- K. The correct answer for the test items should be equally distributed (or as nearly so as possible) among each of the options, i.e. 25% of the answers should be option a, 25% should be option b, 25% should be option c, and 25% should be option d.
- L. There should be no more than three items in a row with the same option as the correct answer.

#### ASSESSMENT STANDARD 2

Each test item must be documented in at least one reference from the NASBLA Recognized Reference. References may be submitted for approval to the Education Committee.

#### NASBLA Recognized Reference List for Test Items

1. Navigation Rules
2. 33 Code of Federal Regulations (CFR), 46 CFR, 50 CFR
3. Federal Requirements for Recreational Vessels
4. The Refuse Act, 1899, The Act of Prevent Pollution from Ships (Marpol Annex V)
5. ASTM Standard F1739-96 “Standard Guide for Performance of a Water Rescuer”

6. U.S. Coast Guard Boating Accident Statistics/Reports
7. Information contained on U.S. Coast Guard websites (e.g., “Influence of Drugs & Alcohol on Boat Operation”)
8. American Red Cross
9. State statutes and administrative rules.
10. Other Courses/Texts
  - a. America’s Boating Course
  - b. Boating Fundamentals – A Manual for Safe Boating
  - c. Chapman Piloting: Seamanship and Boat Handling (63<sup>rd</sup> and future editions)
  - d. Personal Watercraft Rider’s Handbook
  - e. Essentials of Sea Survival
  - f. Annapolis Book of Seamanship

### ASSESSMENT STANDARD 3

The aggregate of the assessments must consist of at least 50 questions based on Standards 1-7 (or as described in Assessment Standard 4) in accordance with the following assessment plan:

<b>Standard</b>	<b>Test Weight</b>
<b>The Boat</b>	
Standard 1.1 - Boat Capacities	2%
Standard 1.2 - Boat Registration Requirements	0
<b>Boating Equipment</b>	
Standard 2.1 - Personal Flotation Device Types and Carriage	2%
Standard 2.2 – Personal Flotation Device Sizing and Availability	2%
Standard 2.3 - Wearing Personal Flotation Devices	4%
Standard 2.4 - Personal Flotation Device Serviceability	2%
Standard 2.5 – Fire Extinguisher Equipment	2%
Standard 2.6 – Back-Fire Flame Control Device	0
Standard 2.7 – Ventilation Systems	0
Standard 2.8 – Navigation Light Equipment	2%
Standard 2.9 - Sound Signaling Equipment	0
Standard 2.10 – Visual Distress Signal Equipment	2%
<b>Trip Planning and Preparation</b>	
Standard 3.1 - Checking Local Weather and Water Conditions	2%
Standard 3.2 - Checking Local Hazards	2%
Standard 3.3 - Filing a Float Plan	0
Standard 3.4 - Boat Preventive Maintenance	2%
Standard 3.5 – Transporting and Trailing	2%
Standard 3.6 - Fueling Procedures	2%
Standard 3.7 - Pre-Departure Checklist & Passenger Communication	2%
<b>Marine Environment</b>	

<b>Standard</b>	<b>Test Weight</b>
Standard 4.1 – Environmental Laws and Regulations	2%
Standard 4.2 - Human Waste Disposal	0
Standard 4.3 – Disposal of Toxic Substances	0
<b>Safe Boat Operation</b>	
Standard 5.1 - Operator Responsibilities	8%
Standard 5.2 - Influence of Drugs and Alcohol on Boat Operation	6%
Standard 5.3.1 - Rule of Responsibility – Rules 2(a) and 2(b)	2%
Standard 5.3.2 - Proper Lookout – Rule 5	4%
Standard 5.3.3 - Safe Speed – Rule 6(a)	4%
Standard 5.3.4 - Collision Avoidance Rules	4%
Standard 5.3.5 - Restricted Visibility - Rules 19(a) – (e)	2%
Standard 5.3.6 - Disclaimer	0
Standard 5.4 - Aids to Navigation	4%
Standard 5.5 - Docking and Mooring	2%
Standard 5.6 – Anchoring	2%
Standard 5.7 – Carbon Monoxide	2%
Standard 5.8 – Propeller Intervention & Awareness	2%
<b>Emergency Preparedness</b>	
Standard 6.1 - Rendering Assistance	2%
Standard 6.2 – Capsizing/Falls Overboard	6%
Standard 6.3 – Cold Water Immersion and Hypothermia Prevention	2%
Standard 6.4- Fire Emergency Preparedness	2%
Standard 6.5 - Running Aground Prevention and Response	2%
<b>Other Water Activities</b>	
Standard 7.1 – Personal Watercraft and other Jet Propelled Watercraft	6%
Standard 7.2 - Water Skiing, Towed Devices and Wake Sports	2%
Standard 7.3 - Diving and Snorkeling	0
Standard 7.4 - Hunting & Fishing	2%
Standard 7.5 – Paddlesports and Small Boats	2%
<b>Total (out of 50 questions)</b>	<b>100%</b>

In order to receive NASBLA approval, any assessment offered for boater certification in a state must conform to the assessment plan adopted by the Boating Law Administrator of that state.

#### ASSESSMENT STANDARD 4

The state specific portion of the assessment must contain A MINIMUM OF 10 state specific assessment questions written to the NASBLA item writing standards covering NASBLA Standard 8.2. It is

recommended that the state-specific questions be in addition to the 50 questions covering Standards 1 through 7.

However, if an assessment of 60 or more questions is not feasible, the state may choose to replace some of the 50 questions required by Assessment Standard 3 with state-specific questions. In this case, the state-specific questions will not only address course content defined by NASBLA Standard 8.2, but also address course content defined by NASBLA Standards 1 through 7. For example, a question addressing NASBLA Standard 5.2 (Influence of Drugs and Alcohol on Boat Operation) may be made into a state-specific question by ensuring that it also addresses NASBLA Standard 8.2.10 (state-specific laws on operating under the influence of drugs and alcohol such as implied consent and BAC levels).

The resulting assessment must have at least 50 questions, including 10 or more state-specific questions, and conform to the standard weighting of the assessment plan adopted by the Boating Law Administrator of that state.

## ASSESSMENT STANDARD 5

Developing a passing score for each assessment should not be arbitrarily determined. Using court approved testing techniques (e.g., Angoff method, Ebel method) for establishing a passing score is recommended, but not required. The minimum passing score will be determined by each state in which the course is approved. In addition, the decision as to what happens when a student scores below the state established threshold will be determined by the states.

Rationale -Professionals in test writing identify four essential components: 1) validity 2) reliability 3) fairness 4) practicality. These components and assessment standards will provide NASBLA with a professional and legally defensible assessment program.

## Standard 9.3 – Online Assessment Requirements

Standard 9.3.1 - Students will proceed through all of the credited time course content pages in each chapter prior to taking each end-of-chapter assessment to receive credited time for taking the course. “Chapter” is defined as a module, section, unit or any other segmentation or packaging of materials within a course. Online courses must have an assessment at the end of each chapter. “Assessment” is defined as a chapter review, practice quiz, final examination, chapter test or any other form of evaluation of the student’s progress.

Standard 9.3.2 – Students who fail an end-of-chapter assessment, will be required to review the entire chapter for the credited time again before re-taking the end-of-chapter assessment.

Standard 9.3.3 – Once a student has successfully completed an end-of-chapter assessment, the content pages for that chapter will be available for additional review by the student at any time with no time requirements. However, content pages will not be made available to the student via any means while the student is taking any assessment.

Standard 9.3.4 – All assessments will adhere to the NASBLA Terms and Conditions requirements.

Standard 9.3.5 – All assessments will be graded automatically and the student shall be provided with his/her score online.

Standard 9.3.6 – If an online assessment provides for each question, no feedback will be given until an answer has been submitted. Once an answer is submitted, it can not be changed by the student.

Standard 9.3.7 – In an online course, the course provider will not provide links which allow a student to reference the course materials during any assessment.

Standard 9.3.8 – If the state permits, a student may opt to take a challenge exam prior to beginning the course. The challenge exam will be written to the NASBLA Assessment Standards. The number of questions, passing score and any applicable fees will be determined by the state of residency for the student and for which the course is valid and approved. A student may only take the challenge exam once and, if he/she fails the challenge exam, then the student must take the full course.

Standard 9.3.9 – For assessments offered online, the assessment questions will be randomly selected from a pool of questions such that the resulting assessment meets the weights specified in NASBLA Assessment Standards 3 or P:3 . The number of questions in the pool from which the random selection draws will be at least four times the number of questions presented on the assessment. Furthermore, the questions in the assessment pool must be distributed according to the weights specified in NASBLA Standard 9.2.3: Assessment Standards 3 and 4. The assessment pool will consist of at least the following minimums

**National Boating Education Standards**

Number of Questions in Assessment Pool*	Standard Number
4	1
32	2
24	3
4	4
84	5
28	6
24	7
20	8

**Paddlesports Education Standards**

Number of Questions in Assessment Pool	Standard Number
4	P:1
12	P:2
20	P:3
4	P:4
28	P:5
28	P:6
4	P:7
20	P:8

*\*The number of questions was changed to fit the new assessment standard requirements for exam weighting developed in 2009 and shown in Assessment Standard 3.*

Standard 9.3.10 - If an online course presents more than one assessment to the same student, the assessment presentation algorithm will ensure that no two assessments have more than 50 percent of the same questions on the assessments. A question will be considered to be the same as another question if it has substantially the same stem and the same set of distractors as the question it is replacing.

Rationale – Unlike a classroom course, the assessments in an online course are the only form of evaluation available. Therefore, it is imperative that the online assessment standards be established and regulated. The feedback should be designed to encourage students to review, comprehend, and understand the course content rather than to memorize questions and answers.

**Online and other Electronic Course Delivery and Presentation**

## **Standard 10.1 – Organization of Course Content**

Standard 10.1.1 – Content within the courses will be presented in a narrative fashion utilizing a consistent style throughout the course in terms of headings, titles, labels and font. “Narrative” is defined as a sequential description of information contained within the National Boating Education Standards that can be written in paragraph form or provided to the student through narration within audio or video elements.

Standard 10.1.2 – A table of contents (or site map for online courses) will be available to show the organization of the course content. In an online course, students will know that they have already viewed the course content upon receiving a cue (i.e. color change, check mark, etc.) that a particular task/section has been completed.

Standard 10.1.3 – Courses must be organized into multiple chapters.

Standard 10.1.4 - The course will be designed such that any advancement through the course is initiated by the action of the student (for example, by the student clicking on a “next” button or successfully completing an end-of-chapter assessment). There will be no automatic advancement provided.

Standard 10.1.5 – If animations or video clips are used within a course, the student must be able to re-play the instructional segments of the animation or video.

Rationale – An online boating safety course is, essentially, an electronic book that will be read independently by the students without the presence or assistance of an instructor. Therefore, the content must be presented to the students in such a way as to promote comprehension and retention of the material whether the courses are published as a textbook or completed electronically.

## **Standard 10.2 – Minimum Initial Study Time for an Online Course**

Standard 10.2.1 - Online courses will be organized so that the minimum time for the course content to be delivered to and completed by the student is at least three (3) hours. Course content is defined as that material meeting the National Boating Education Standards 1-8, not including any course assessments.

Standard 10.2.2 - Each page of the online course content will have a minimum time that a student is required to remain on that page (“credited time”) which the course provider will set when the online course is presented for review and will retain through the approved period. The sum of the credited times over all content pages will equal or exceed three (3) hours. The student may not progress to the next page until the credited time has expired, however, students may stay on a page longer than the credited time. Additional time required to re-study the materials if a student fails a chapter assessment does not count as part of the credited time.

Standard 10.2.3 – If a student exits or logs off a page before completing its credited time, he/she will be required to complete the remaining time on that page when he/she returns before progressing to the next page.

Standard 10.2.4 – If a student leaves an assessment without completing it, the course will be designed to give the student the option of returning to continue taking the assessment at the point in which he/she stopped or of treating the abandonment as a failing score. The passing score and number of questions (beyond the minimum 50 questions as required in Testing Standard 9.2.4) on all assessments will be established by the Boating Law Administrator of each state.

Rationale – Simply following through the minimum content necessary to meet the National Boating Education Standards 1-8 should take a minimum of three (3) hours. This provides the opportunity for the individual to absorb the information and discourages bypassing material or skipping to the assessment.

## **Recommended Boating Safety Information**

The following items contain recommended course content but are not considered part of the minimum standards for boater education courses.

### **R1 – Boat Types and Uses**

The course should describe the common types of recreational boats, common hull designs, and their performance in various types of boating situations.

Rationale - Boat operators should understand the handling characteristics of various boat types so as to match the boat to the water and planned activity. Boat performance characteristics as determined by design features should be known to a boat operator and factored into their boating decisions.

### **R2 - Boating Terms**

The course should describe commonly used boating terms in addition to those terms required to follow the Navigation Rules. (see also standard 5.3.1).

Rationale - Knowing common boating terms could save time and confusion in the event of an emergency by enabling boat operators to secure the situation efficiently and communicate clearly.

### **R3 - Boat Theft Prevention**

The course should contain information that addresses actions the boat owner can take to deter or prevent boat theft.

Rationale - Statistics indicate that boat theft is increasing. Boat owners can deter theft and assist law enforcement authorities through their actions and observations.

### **R4 - Communication Procedures**

The course should describe the protocol and use of VHF marine radios and other equipment for contacting the U.S. Coast Guard or other rescue personnel in the event of a boating emergency.

Rationale - In the event of an emergency the boat operator must be able to respond quickly and communicate his or her situation to relevant authorities. Understanding how to use marine communication procedures is an essential element of responding to emergencies.



## References Consulted

- BoatU.S. Foundation for Boating Safety. (1995). Nighttime Boating Accident and Fatality Study. Alexandria, VA.
- Canadian Coast Guard. (1997). Boating Safety Course Standards Draft Report. Ottawa, Canada.
- Connecticut Department of Environmental Protection. (1998). Boating Basics: A Guide to Responsible Boating. Outdoor Empire Publishing, Inc.: Seattle, WA.
- Florida Marine Patrol & Game and Fresh Water Fish Commission. How to Boat Smart: Florida Boating Safety Course. Tallahassee, FL.
- Golden and Harvey. *The “After Drop” and Death After Rescue from Immersion in Cold Water*. Hypothermia Ashore and Afloat. J.M.Adam, 1981.
- Journal of the American Medical Association. *Drinking and Recreational Boating Fatalities*. 2001; 286: 2974-2980.
- National Association of State Boating Law Administrators. Minimum Standards for Boating Safety Education. Lexington, KY.
- National Association of State Boating Law Administrators. Reference Guide to State Boating Laws
- National Safe Boating Council. Basic Boating Sample Lesson Plan Program Guidelines. Delaware, OH.
- National Transportation Safety Board. Safety Study - Personal Watercraft Safety. NTSB/SS-98/01. Washington, D.C.
- National Transportation Safety Board. (1993). Safety Study - Recreational Boating Safety. NTSB/SS-93/01. Washington, D.C.
- U.S Coast Guard Auxiliary. (1996). Skipper’s Safe Boating Course. Mosby Lifeline: St. Louis, MO.
- U.S Coast Guard Auxiliary. (1997). Boating Safety. Mosby Lifeline: St. Louis, MO.
- U. S. Coast Guard & National Recreation and Park Association. (1995). Boating Fundamentals: A Manual for Safe Boating. Arlington, VA.
- U.S.D.O.T. United States Coast Guard. (1990). Navigation Rules: International – Inland (COMDTINST M16672.2B). U. S. Government Printing Office: Washington, D. C.
- U.S.D.O.T United States Coast Guard. (1994). Federal Requirements and Safety Tips for Recreational Boats. U. S. Government Printing Office: Washington, D. C.
- U.S.D.O.T. United States Coast Guard. (2009). Recreational Boating Statistics - 2008. COMDTPUB P16754.21. Washington, D.C.
- U.S.D.O.T. United States Coast Guard. (2008). Recreational Boating Statistics - 2007. COMDTPUB P16754.21. Washington, D.C.
- U.S.D.O.T. United States Coast Guard. (2007). Boating Statistics - 2006. COMDTPUB P16754.20. Washington, D.C.
- U.S.D.O.T. United States Coast Guard. (2006). Boating Statistics - 2005. COMDTPUB P16754.19. Washington, D.C.

- U.S.D.O.T. United States Coast Guard. (2005). Boating Statistics - 2004. COMDTPUB P16754.18. Washington, D.C.
- U.S.D.O.T. United States Coast Guard. (2004). Boating Statistics - 2003. COMDTPUB P16754.17. Washington, D.C.
- U.S.D.O.T. United States Coast Guard. (2003). Boating Statistics - 2002. COMDTPUB P16754.16. Washington, D.C.
- U.S.D.O.T. United States Coast Guard. (2002). Boating Statistics - 2001. COMDTPUB P16754.15. Washington, D.C.
- U.S.D.O.T. United States Coast Guard. (2001). Boating Statistics - 2000. COMDTPUB P16754.14. Washington, D.C.
- U.S.D.O.T. United States Coast Guard. (2000). Boating Statistics - 1999. COMDTPUB P16754.13. Washington, D.C.
- U.S.D.O.T. United States Coast Guard. (1999). Boating Statistics -1998. COMDTPUB P16754.12. Washington, D.C.
- U.S.D.O.T. United States Coast Guard. (1998). Boating Statistics - 1997. COMDTPUB P16754.11. Washington, D.C.
- U.S.D.O.T. United States Coast Guard. (1997). Boating Statistics - 1997. Preliminary Draft. Washington, D.C.
- U.S.D.O.T. United States Coast Guard. (1996). Boating Statistics - 1996. COMDTPUB P16754.10. Washington, D.C.
- U.S.D.O.T. United States Coast Guard. (1995). Boating Statistics - 1995. COMDTPUB P16754.9. Washington, D.C.
- U.S.D.O.T. United States Coast Guard. (1994). Boating Statistics - 1994. COMDTPUB P16754.8. Washington, D.C.
- United States Power Squadrons. (1997). The Squadron Boating Course. Raleigh, NC.
- United States Power Squadrons. (1997). Boat Smart. Raleigh, NC.
- Underwriters Laboratories Inc. (1998). Recreational Boat Manufacturing Compliance Workshop Report. Research Triangle Park, NC.