



Technical Report – Basic Boating Knowledge – Human-Propelled

FOR USE WITH:

ANSI/NASBLA 101-2017:
BASIC BOATING KNOWLEDGE – HUMAN-
PROPELLED
(AMERICAN NATIONAL STANDARD)

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National Boating Education Standards
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Adapted from: American Camping Association. (1998). UAccreditation Standards for Camp Programs and Services. American Camping Association: Martinsville, IN.

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Foreword

Publication of this Technical Report that has been registered with ANSI has been approved by the National Association of State Boating Law Administrators, 1648 McGrathiana Parkway, Suite 360, Lexington, Kentucky 40511. This document is registered as a Technical Report according to the Procedures for the Registration of Technical Reports with ANSI. This document is not an American National Standard and the material contained herein is not normative in nature. Comments on the content of this document should be sent to NASBLA's National Boating Education Standards Panel, 1648 McGrathiana Parkway, Suite 360, Lexington, Kentucky 40511.

This Technical Report was developed by the National Boating Education Standards Panel. Its contents were developed to advance use and common understanding of the American National Standards for Basic Boating Knowledge. This Technical Report supports the American National Standard (ANS) entitled *ANSI/NASBLA 101-2017: Basic Boating Knowledge – Human Propelled* (hereafter called the “Standard”), which was formulated through voluntary consensus of representatives of federal and state government, industry, non-profit organizations, and public sectors.

The purpose of this Technical Report is to provide information that helps design and implement successful recreational powerboating education and training programs. NASBLA wishes to thank the countless numbers of individuals, current and past, who contributed to the development of instructional strategies, techniques, and processes included in this publication. Your work and efforts continue to advance safe boating in North America.

Technical Report

for

ANSI/NASBLA 101-2017: Basic Boating Knowledge – Human-Propelled

Chapter 1 - Introduction

This Technical Report supports the American National Standard (ANS) entitled *ANSI/NASBLA 101-2017: Basic Boating Knowledge – Human-Propelled* (hereafter called the “Standard”), which was formulated through voluntary consensus of representatives of federal and state government, industry, non-profit organizations, and public sectors.

The purpose of this Technical Report is to provide information that helps design and implement successful recreational education programs for human propelled craft.

History of Recreational Boating Education Standards

In 1978, minimum boating education guidelines existed for state, non-profit and commercial providers to follow in developing boating education materials. These guidelines, designed to address power boats and motorized sail boats, were developed under the oversight of the National Association of State Boating Law Administrators (NASBLA) Education Committee to “emphasize generic safety and emergency procedures” for the recreational boater. In 1989, state members of NASBLA agreed to recognize NASBLA Certified Boating Safety Courses as a means to “reduce boater confusion as to various state or provincial education requirements.” To facilitate this recognition, in 1990, NASBLA implemented a process for review and approval of courses to ensure they met the published guidelines.

In July 1998, with financial assistance provided by a national non-profit grant administered by the United States Coast Guard (USCG), NASBLA, in partnership with the National Safe Boating Council (NSBC), contracted with a research team anchored at The Pennsylvania State University to evaluate 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.

Many documents, a number of which are included as references in this Technical Report, were reviewed and interviews conducted with nationally prominent and recognized boating educators for development of the new National Boating Education Standards. A result was a working draft of the standards which were submitted to the NASBLA Standards Advisory Committee¹ for review and comment. Several more drafts of the standards were completed, each going through a revision process. In December 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, which was validated and pilot-tested in the second phase of the study between January and August 1999. The results of this second phase showed a strong consensus among boating educators that the draft standards represented the minimum information that should be taught in a one day, eight-hour boating safety course. The final version of the standards was approved by NASBLA membership on September 22, 1999.

¹ The Standards Advisory Committee was comprised of education specialists representing the NSBC, U.S. Coast Guard Auxiliary, United States Power Squadrons, various states, NASBLA, and NASBLA associates.

In 2009, NASBLA membership requested that the standards be analyzed in order to determine whether they had contributed to 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 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 USCG accident and fatality statistics and noted how this data compared to the existing 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 inclusion in the document. In addition, several standards were modified, combined, or reworded to emphasize key points related to the statistics. Along with revisions made in the education standards, separate test standards were revised resulting in a distinct number of test questions per standard required for course approval to reflect overall importance of the subject for boater safety. The revised standards were approved by the 2009 Standards Advisory Board, the Education & Awareness Committee and were approved by the overall membership of NASBLA on September 28, 2009.

Paddlesports (a.k.a. Human-Propelled)

In 2006, a number of states began to look into requiring all vessel operators, motorized and non-motorized, to pass a boating safety course. While the majority of states had similar legislation with regards to powerboat operators, there was interest in ensuring that every person operating a boat on the waterways have education. Requiring a paddler to attend a 6-8 hour course which addressed mostly powered vessels did not seem fair. Therefore, a request was made for NASBLA to create a set of Paddlesports Education Standards. The 2007 NASBLA Paddlesports Committee was charged with the task of drafting a set of standards with the help of the American Canoe Association. The first version of the Paddlesports Education Standards was formally approved by the NASBLA membership on September 8, 2009 at their 49th Annual Conference.

American National Standards

NASBLA-approved National Boating Education Standards are referenced in numerous state laws and regulations as the minimum criteria for state-mandated boater education; however, several state legislatures enacted process rules in conflict with the NASBLA Standards. In 2011, the NASBLA Executive Board directed that the standard-setting process follow nationally recognized procedures for development of recognized American National Standards (ANSs) and formed the National Boating Education Standards Panel (the “Panel”) to implement this process. The Panel adopted the Essential Requirements of the American National Standards Institute (ANSI) for development of ANSs. ANSI is recognized both nationally and internationally for oversight in creation, promulgation and use of thousands of standards, norms, and guidelines that directly impact businesses in nearly every sector. NASBLA received recognition from ANSI as an Accredited Standards Developer in 2014 and reaccreditation in 2018.

Development of the ANS as referenced in this Technical Report was developed with adherence to these ten ANSI Essential Requirements:

- **Openness** to all directly and materially affected
- **Lack of dominance** by any single interest category, individual, or organization
- **Balance** of interests represented on the Panel

- **Coordination and harmonization** between existing and candidate standards
- **Notification** of standards development
- **Consideration of views and objections**
- **Consensus vote**
- **Appeals** process
- **Written procedures**
- **Compliance** with normative American National Standards Policies and administrative procedures

In accordance with the Panel’s recommendation and the NASBLA Executive Board’s subsequent approval, the standard document once covering both the educational content and the conformity assessment (review) process was formatted to present a single National Boating Education Standard for a basic boating safety course and to separate out administrative policy for the purpose of course approval. This Technical Report includes rationales for each element of the standard, in addition to instructional strategies, assessment considerations, and more to facilitate understanding and implementation of the ANS for Basic Boating Knowledge – Human-Propelled.

Chapter 2 - Recreational Boating Instructional Design and Performance Assessment

The American National Standard (ANS) for Basic Boating Knowledge – Human-Propelled (ANSI/NASBLA 101-2017) (the “Standard”) was developed to establish minimum national content for basic boating courses to address and reduce primary risk factors and mitigate their effects on recreational boating. The elements of the Standard can (and should) be implemented into a broad range of educational approaches (e.g., on-line, classroom, instructor-led distance learning, hands-on simulation, on-water skill development, etc.). For ease in presentation, face-to-face instructor-led training in a classroom setting is the primary approach addressed in this Technical Report.

Successful Instructional Strategies for Face-to-Face Basic Boating Safety Knowledge Courses

This Technical Report reflects information on successful instruction strategies gained as a result of many years of teaching experience from a broad diversity of subject matter experts, including boating safety education course designers, instructor-trainers, and instructors. The successful strategies identified are not intended to be a complete list of all teaching practices nor will the use of these strategies guarantee an excellent course experience. Teaching is an ever-changing series of choices made by an educator to provide the student the best possible opportunity to learn a given subject. Considerations for designing a successful learning opportunity include the student’s readiness for learning, well-written student performance objectives, well-defined course goals and content, a prepared and motivated instructor, a safe location conducive to learning, suitable and practical instructional materials, organizational context, and other factors.

General Instructional Strategies

Effective programs clearly define the “Educational Purpose,” which includes the program’s mission, goals, and objectives, and assures that all are aligned with each other. Important considerations include:

- Planning effective programs;
- Relying on experienced, well informed, prepared, and ethical staff;
- Having a clear understanding of agency goals and objectives;
- Being inclusive of all audiences;
- Aligning curricula with national and state educational standards when appropriate;
- Presenting accurate and balanced information, incorporating many different perspectives;
- Clearly addressing safety and other regulations, and reducing real risks to everyone involved;
- Empowering learners - teaching them “how” to think not “what” to think;
- Using multiple teaching methods to accommodate diverse learning styles; and
- Using instructors as facilitators, not “transmitters.”

Course Instructors:

- Are selected through a process that ascertains their knowledge of boating safety content and teaching ability related to boating safety education courses;
- Are regularly evaluated by students, peers and supervisors in order to improve their instructional skills;

- Participate in professional development opportunities such as training sessions, workshops, or conferences to improve their boating safety knowledge and teaching skills;
- Use a variety of instructional strategies in the course such as:
 - demonstrations with boating equipment,
 - student interaction including involvement in demonstrating skills,
 - simulations of practical boating situations,
 - students solving hypothetical boating situations,
 - short videos of boating topics,
 - role playing boat operator decision-making,
 - reading texts and attending lectures of boating safety content,
 - computer simulations and content, and
 - incorporating situational awareness scenarios when possible;
- Provide opportunities for students to demonstrate their understanding of course objectives through hands-on activities that encourages application of their boating safety knowledge and skill; and
- Monitor student attainment of the learning objectives during the course through a variety of assessment strategies such as: verbal conversations, written tasks, and formal assessments.

Human learning styles

Boating education course instructors should have an excellent working knowledge of how people learn and seek to continually extend their understanding of human learning. A teacher's effectiveness is in part due to knowledge of the content area but also rests on their ability to ascertain their student's learning processes and match instructional strategies to the learning needs of their students. While each student and class is unique, there are some general human learning characteristics that can assist boating safety instructors in making their teaching decisions. The amount of research and written material on human learning is vast and beyond the scope of this document.

Current explanations for how people learn are varied and complex. While learning can encompass memorization of discrete facts (retention rates are typically low), most current explanations focus on the ability to learn for understanding. This is thought of as learning that contains rich, deep content knowledge organized around conceptual themes, which can be applied to new situations and contexts. In other words, providing opportunities for students to apply and use recently acquired information is paramount to improving and prolonging retention rates.

Every student brings with them previously established conceptions and beliefs about the wide variety of boating safety education topics. One common approach in elevating human learning is to provide the student with opportunities to actively derive meaning from their past experiences by providing opportunities to apply the new knowledge against previously held beliefs or experiences. An implication for the boating safety instructor is that they must actively and explicitly pre-assess the student's prior understandings to identify any misconceptions. Instructional choices can then be better targeted to challenge existing misconceptions and present the student with overwhelming motivation and experiences to transform misconceptions into the more sophisticated

understanding held by expert boaters. Teaching for understanding focuses on developing an educated boater that knows how and when to apply knowledge rather than a boater who simply knows boating facts.

There are some general suggestions for boating safety instructors. Human learning can be organized into categories such as knowledge, skills and attitudes. The boating safety instructor should design learning experiences that address each of these categories and consciously select instructional strategies matched to the learning category. Another consideration is that students utilize preferred learning styles, which can be categorized as visual learners, auditory learners and kinetic learners. The main message for boating safety instructors is to NOT imagine their students as identical in their learning style but INSTEAD view their students as using different learning styles. The boating safety instructor should deliver a course that intentionally includes a variety of learning activities that target different learning styles. The boating safety instructor must also consider that differences in culture, language, family, community and socio-economic status affect how a student learns. In order to be most effective, the ideal instructor explicitly identifies the learning needs of his/her students and provides a variety of instructional experiences to meet those needs. Finally, instructors should focus on designing a significant percentage of learning experiences that incorporate higher order thinking skills such as analysis, synthesis, evaluation and application. Long term retention rates for remembering specific facts or vocabulary are low. Learning is retained when students are given an opportunity to apply the information received. A boating safety instructor should focus on the most crucial content using instructional strategies that result in a highly-educated boater.

More information about human learning and teaching successful boating education courses can be obtained through state/province/territory boating agencies, the U.S. Coast Guard, The National Safe Boating Council and organizations such as NASBLA, Coast Guard Auxiliary, U.S. Power Squadrons, U.S. Sailing, American Canoe Association, and many others.

Program planning

Instructors, text authors, boating professionals, and organizations are encouraged to go beyond the Standard when, in their judgment and experience, it encourages the boat operator to boat more safely. In addition, the Standard is intended to show just the minimum content of the course materials, not the sequence or organization of the material. Although the Standard is organized in a logical fashion, course/text developers are encouraged to organize their information to be most effective in their environment.

Boat Operator Knowledge Assessments

A written assessment must be well-designed and comprehensive in covering the elements of the Standard. Comprehensive assessments evaluate boat operator knowledge equally as well as an independent exam or as an exam at the end of a course.

A well-designed assessment covers the entire body of knowledge as outlined by the Standard, however, certain sections carry more importance and should receive more attention within the assessment.

Each assessment should have a plan for how the test administrator will seek to maintain assessment integrity. Since course completion cards are required in many states, the plan should address security issues commensurate with the purpose of the exam and perceived opportunity to commit assessment fraud. 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.

If a classroom presents more than one assessment to the same student, the subsequent assessments should be constructed such that at least 50 percent of the questions or situations differ from the previous assessment. A question or situation will be considered to be the same as another if it has substantially the same stem, the same set of distractors as the question it is replacing, or it assesses essentially the same situational awareness as previously presented.

A critical step in issuing a boater education card is the inclusion of a well-designed and comprehensive assessment using professional assessment procedures.

The following are assessment standards for written items required for courses seeking national approval and state authorization through NASBLA². These assessment standards are presented here as best practices for creation of multiple-choice testing instruments by a course provider. These best practices are required if seeking NASBLA course sanctioning for Human-Propelled Knowledge courses.

ASSESSMENT BEST PRACTICES – Part 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 an element in the Standard.
- J. The test should include clearly written directions to the candidates on how to respond to the questions.

² See NASBLA Policy for Boating Course Approval at <https://www.nasbla.org/education/nasbla-course-approval>.

- 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 BEST PRACTICES – Part 2

Each test item must be documented in at least one reference from the nationally recognized reference and documented by the course provider.

EXAMPLE - Recognized Reference List for Test Items *(add additional data such as year and publisher as appropriate):*

1. USCG Handbook of Navigation Rules & Regulations
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 (63rd and future editions)
 - d) Kayaking, by the American Canoe Association
 - e) Canoeing, by the American Canoe Association
 - f) Annapolis Book of Seamanship

ASSESSMENT BEST PRACTICES – Part 3

For a NASBLA-sanctioned Paddlesports (Human-Propelled) course, the aggregate of assessments must consist of at least 50 questions.

Note: In order to receive NASBLA-sanction, 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 BEST PRACTICES – Part 4

The state specific portion of the NASBLA-sanctioned assessment must contain a MINIMUM OF 10 state specific assessment questions written to the NASBLA item writing standards covering NASBLA Policy Section 8.2 (State

Specific Information). It is recommended that the state-specific questions be in addition to the 50 questions covering the designated national standard.

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 NASBLA with state-specific questions. In this case, the state-specific questions will not only address course content defined by NASBLA Policy Section 8.2, but also address course content defined in the designated national standard. For example, a question addressing NASBLA Section 4.2 (Influence of Drugs and Alcohol on Boat Operation) may be made into a state-specific question by ensuring that it also addresses NASBLA Standard 8.2.5.3 (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 BEST PRACTICES – Part 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. If the test is submitted for NASBLA-approval, the minimum passing score will be determined by each state in which the course is authorized. In addition, the decision as to what happens when a student scores below the state-established threshold will be determined by the states.

Chapter 3 - Detail Behind the Standard

Technical Notes for Individual Standard Elements

Human-propelled craft follow the same rules and safe operating principles as all other boats. However, human-propelled craft have unique characteristics that impact the application of those rules and principles.

- 1) Canoes and kayaks are generally small, slow, and hard to see. Operators of these types of human-propelled craft should strive to avoid boating in areas that might bring them in conflict with larger, faster craft. For example, human-propelled craft should avoid channels whenever possible. When channels must be crossed, they should be crossed quickly and in areas of good visibility.
- 2) Human-propelled craft are often occupied by only one person. Operators should focus on avoiding problems and being able to self-rescue. Operators of single-occupant craft should boat in groups whenever possible.
- 3) Major contributing factors to accidents and fatalities involving human-propelled craft include failure of the occupants to wear a life jacket, inadequate skills for the boating environment, inability to self-rescue, cold weather / water, pins and entrapment on moving water, and use of alcohol or other mind-altering substances. Courses should ensure they adequately address these topics.
- 4) Falling overboard and capsizing are both inherent parts of operating many human-propelled craft. Operators of human-propelled craft should assume they will capsize and/or swim at some point. They should dress appropriately for cold weather and water, and should always wear a life jacket.
- 5) Human-propelled craft operate in a wide variety of boating environments, and there are a wide range of types of craft. The [ANSI/NASBLA 101-2017: Basic Boating Knowledge – Human-propelled](#) standard addresses issues common to all human-propelled craft, but course designers may provide additional material that focuses on a specific boating venue or specific type of craft.
- 6) Human-propelled craft have unique systems for signaling and unique considerations for lighting. Courses should focus on these rules. Rules that do not apply to human-propelled craft are taught so that operators of human-propelled craft better understand what other boaters are doing. In addition, some boating venues (e.g., whitewater) have specific, widely accepted, hand and whistle signals that are not used in other venues.
- 7) Introductory boating courses are commonly offered in a classroom. However, human-propelled boating instruction is generally done in a hands-on fashion. All portions of this American National Standard can be covered in a classroom, a hands-on setting, or a combination of the two. Course designers are free to add relevant material that goes beyond this standard.

Scope

ANSI/NASBLA 101-2017: Basic Boating Knowledge – Human-Propelled (the “Standard”) is the minimum Standard that applies to all human-propelled boating courses in the U.S. states and territories and District of Columbia.

Purpose

ANSI/NASBLA 103-2017: Basic Boating Knowledge – Human-Propelled establishes the national Standard for use by course providers to meet the needs of recreational boaters for human-propelled boating knowledge in order to identify and reduce primary risk factors and mitigate their effects on recreational boating.

This standard applies to all human-propelled craft, such as canoes, kayaks, rafts, stand-up paddleboards (SUPs), dragon boats, etc. hereafter referred to as ‘boats.’

Standard-Specific Successful Instructional Strategies for Face-to-Face Instruction

This chapter provides the course provider or boating education instructor with a starting place for designing or improving a boating safety course based on the Standard. Each element of the Standard is presented individually along with rationale, technical notes, or additional background information. See the Appendix in this document for a complete copy of the Standard as published.

Instructional strategies, collected from subject matter experts in the boating education community, provide a range of ideas to consider for instructor-led teaching of each Standard element. These are meant to provide guidance on how successful instruction might be implemented.

Examples of multiple choice questions are provided which were developed following the NASBLA assessment criteria presented in Chapter 2. Example test questions are provided below each Instructional strategies table. The correct response is presented in **bold**.

1. The Boat

1.1. Boat Capacity

1.1.1. The course shall describe:

- 1.1.1.1. how to determine acceptable loading capacity; and
- 1.1.1.2. how and why to properly balance the load.

Technical Notes and Rationale 1.1 - Boat Capacities

- Properly loaded and trimmed craft are more stable, easier to control and less likely to founder or capsize. Proper trim includes balancing the load. The lower the center of gravity, the more stable the craft will generally be. Loads in the boat should be distributed so as to maintain an even trim, both fore and aft, and port to starboard. For human-propelled craft, proper trim generally should be evaluated when the boat is occupied. Properly balanced and stowed loads allow better boat performance.
- Although loads should initially be distributed to maintain an even water line, weight might later be shifted to make the boat bow or stern heavy in order to gain specific performance advantages (e.g., weighting the bow when paddling into a headwind).
- Many human-propelled craft do not have capacity plates. Boaters should refer to the owner's manual, any applicable laws or regulations, and general boating principles.
- Manufacturers often recommend a weight range for "optimum" performance.
- Some human-propelled craft (e.g., "squirr boats") are designed to be paddled with much of the deck underwater, but can still be paddled while maintaining trim.

<u>Standard</u>	<u>In-Class Activities:</u>
<u>1.1 - Boat Capacities</u>	<ol style="list-style-type: none"> 1. Show example of capacity plate or photo of one. 2. Show pictures of possible boat capacity violations; ask students to evaluate them. 3. Show slides of variety of boats (including seats) and ask students to guess the boat's capacity. Evaluate information from the capacity plate and explain any differences. 4. Place a tandem canoe on two inflated truck tire inner tubes. Have student load and properly balance the boat while providing a 'safety spotter' to ensure the craft does not tip over.

Knowledge Assessment (Example Test Questions for 1.1)

- 1.1a When loading a small boat, where should most of the weight be placed?
- A. **Balanced and low**
 - B. Balanced and high
 - C. Mostly in the bow
 - D. Mostly in the stern

- 1.1b In general, how will a boat perform if it is loaded beyond its capacity?
- A. It will be easier to control.
 - B. It will have better steering.
 - C. **It will be harder to control.**
 - D. It will be much faster.
- 1.1c What does a paddlecraft's capacity tell you?
- A. Minimum number of life jackets required to be on board.
 - B. Minimum number of seats for the operator and passengers.
 - C. **Maximum number of people and/or weight the boat can carry safely.**
 - D. Volume, in cubic feet, contained within the boat's hull.

2. Boating Equipment

2.1. Personal Flotation Devices (Wearable Life Jackets and Throwable Devices) Types and Carriage

2.1.1. The course shall explain the:

- 2.1.1.1. different classifications and types of U.S. Coast Guard approved personal flotation devices (PFDs), including inflatable life jackets, hybrids, and throwable Type IV devices;
- 2.1.1.2. the number and types of PFDs/life jackets that must be carried aboard the boat according to applicable regulations; and
- 2.1.1.3. label information, how to read and understand them.

Technical Notes and Rationale 2.1 - Personal Flotation Devices

- The terms “Life jacket”, “PFD” and “personal flotation device” generally mean the same thing and are often used interchangeably in boating literature.
- Capsize and falls overboard are common events for human-propelled boaters. Wearing a life jacket reduces the risk of drowning when these events occur. Most boaters who died while boating were not wearing life jackets.
- Life jackets are often designed for specific purposes and types of boating. Course designers should focus on United States Coast Guard Approved life jackets that will be worn by course participants when on or near the water. Labels will describe the specific purpose of a life jacket and the jacket’s size.
- One wearable life jacket per occupant must be aboard any boat to meet carriage requirements. Some life jackets are required to be worn. Some boats require a U.S. Coast Guard Approved throwable device as well.
- Boaters must be aware of, and obey, local rules, laws and regulations. Citations and fines can be issued to boaters not carrying the correct number and type of life jacket.

<u>Standard 2.1 -</u> <u>Personal</u> <u>Flotation</u> <u>Devices Types</u> <u>and Carriage</u>	<u>In-Class Activities:</u> 1. Ask students to respond to: What types of life jackets (PFDs) are acceptable for an 16-foot canoe with the following passengers: 150 pound male, 120 pound female, two 37 pound twin boys? 2. While looking at a life jacket label, have students determine: Who may use the jacket? For what activity is it designed to be used? Is the jacket approved? If so, by whom? What type is it?
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Knowledge Assessment (Example Test Questions)

- 2.1a Why should a person be encouraged to wear a life jacket?
- A. A high percentage of boating-related drowning deaths occur to non-swimmers.
 - B. It is a federal law for boaters to wear a life jacket during the cold weather months.
 - C. Life jacket labels describe who is required to wear the devices.
 - D. **On average, approximately 70% of all boating deaths occur from drowning.**

2.2. Personal Flotation Device Availability and Sizing

2.2.1. The course shall communicate that PFDs/life jackets must be:

2.2.1.1. readily accessible, and

2.2.1.2. correctly sized for the persons using them.

Technical Notes and Rationale 2.2 - Personal Flotation Device Availability and Sizing

- Although stowed life jackets technically meet most carriage requirements, courses should emphasize the importance of all human-propelled boaters regardless of age and swimming ability wearing life jackets whenever boating.
- To be effective, life jackets must fit the boater. Improperly fitted life jackets can interfere with swimming, visibility and breathing, and may be accidentally pulled off a distressed victim.

<u>Standard 2.2 – Personal Flotation Device Availability and Sizing</u>	In-Class Activities: 1. Demonstrate proper fit and adjustment (not just correct size). Place life jackets on a variety of students and give them a tug at the shoulders with the student’s arms extended over their heads. 2. Regarding accessibility: Place several students in front of the room with a variety of sizes and types of life jackets buckled, tied, etc. and placed under their chairs. Simulate a canoe capsize and give the students 30 seconds to don and secure a life jacket. Review the success at the end of 30 seconds. Next, adjust the life jackets to fit the person, remove them and place them under the chair. Repeat the activity and monitor how much quicker the student’s don and secure the devices. Third, leave the devices on, then repeat the activity. (With jackets already on, the person is protected).
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Knowledge Assessment (Example Test Questions)

- 2.2a In which of the following situations does a life jacket meet legal requirements to be ‘readily accessible’?
- A. The life jacket is stowed in its original plastic bag in an open compartment on the boat.
 - B. The life jacket is stowed in a locked compartment for safe keeping.
 - C. The life jacket is stowed in an open boat locker at the dock.
 - D. **The life jacket is stowed within arm’s reach of the intended user.**
- 2.2b According to federal law, the following is approved for use by a six year old weighing 50 pounds?
- A. **A USCG approved youth life jacket with inherent flotation.**
 - B. An USCG approved adult-sized inflatable flotation life jacket.
 - C. An inherently buoyant USCG approved life jacket rated for a 90 pound individual.
 - D. A USCG approved infant sized life jacket.

2.3. Wearing Life Jackets

2.3.1. The course shall inform boat operators of the importance of:

- 2.3.1.1. selecting the proper life jacket for the activity and everyone wearing life jackets at all times while aboard;
- 2.3.1.2. showing passengers how to select the correct size of life jacket and properly put on and wear their life jackets;
- 2.3.1.3. emphasizing the need to be aware that conditions can change quickly while boating (i.e., weather and water conditions, boat traffic, etc.); and
- 2.3.1.4. stressing the need to always wear a life jacket while aboard due to the difficulty of putting a life jacket on in the water while under distress.

Technical Notes and Rationale 2.3 - Wearing Life Jackets

- Life jacket wear is required for some age groups or kinds of activity.
- Wearing a well-fitted lifejacket appropriate for the boating venue reduces the risk of drowning. Therefore, operators of human-propelled craft should wear life jackets whenever they are in their boat.
- Improperly fitted or sized life jackets may not perform as expected. In some cases, improperly fitted or sized life jackets can interfere with swimming, breathing, and ability to see rescuers or hazards. Improperly fitted life jackets might also be pulled off of a distressed victim by waves, river current, or rescuers.
- Donning and fitting a life jacket in the water is difficult, particularly for a distressed victim. Boaters should wear properly fitted, US Coast Guard Approved life jackets when in or around the water.

Standard 2.3 - <u>Wearing</u> <u>Personal</u> <u>Flotation</u> <u>Devices</u>	In-Class Activities: 1. Have a PFD fashion show using examples. 2. Have a relay race to show how long it can take to fully put on a PFD if appropriate for the age group (young children versus adults). 3. Have assorted pictures of activities/people/boats and ask students to match type of lifejacket to pictures. 4. Show an example of an inflatable lifejacket and how it works. 5. Read a story from the National Safe Boating Council's "Saved by the Jacket" book.
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Knowledge Assessment (Example Test Questions)

2.3a A life jacket on your vessel should be sized for which person on board?

- A. The largest person
- B. The smallest person
- C. Average sized person
- D. Its intended wearer**

2.3b On a 15-foot canoe, which object is required to be on-board?

- A. A working VHF radio or cell phone with Digital Select Dialing
- B. A copy of the U.S. Coast Guard's Navigation Rules book
- C. At least ten feet of extra line tied to a ring buoy
- D. One USCG-approved wearable life jacket for each person**

2.4. Personal Flotation Device Serviceability

2.4.1. The course shall describe:

2.4.1.1. the characteristics of serviceable PFDs/life jackets, and

2.4.1.2. when to replace PFDs/ life jackets due to excessive wear or damage.

2.4.2. The course will cover the importance of the maintenance of inflatable life jackets as per manufacturer recommendations.

Technical Notes and Rationale 2.4 - Personal Flotation Device Serviceability

- Flotation in a life jacket can wear out over time, as can the external components (e.g., buckles, zippers). Life jackets should be tested at least annually for function and serviceability, and should be inspected for damage before every use. Life jackets should be replaced when damaged or unable to provide effective flotation.
- Inflatable life jackets need to have functioning inflation cartridges, and cannot have any damage to the actual jacket.
- A good rule of thumb is to replace life jackets every 3 to 5 years, or more frequently if used heavily.
- Extensive fading of a life jacket's color may indicate that other damage has occurred to the life jacket. Extensively faded life jackets should be replaced.
- Inflatable life jackets need to have functioning inflation cartridges, and cannot have any damage to the actual jacket.

<u>Standard 2.4 - Personal Flotation Device Serviceability</u>	<u>In-Class Activities:</u> 1. Have several PFDs in various levels of serviceability (missing buckles, straps, small tears, broken seams). Have the students determine which devices would be deemed as 'serviceable' based on the USCG serviceability policies. 2. Demonstrate how to inspect an inflatable life jacket to determine if it is in serviceable condition. 3. Discuss the meaning of PFD serviceability as defined in United States Code of Federal Regulations 33 CFR 175.23 – <i>Serviceable condition</i> .
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Knowledge Assessment (Example Test Questions)

2.4a What is the meaning of "serviceable condition" for PFDs?

- A. Buckles and zippers work**
- B. Proper size and fit
- C. Ability to turn a person face up
- D. Placed within easy reach

2.4b When is it good advice for adults to wear USCG-approved PFDs?

- A. When in bad weather
- B. During the night time
- C. At all times when aboard**
- D. Only when boating alone

2.5. Navigation Light Equipment

2.5.1. The course shall cover the applicable navigation lights and shapes requirements as set forth in the most recent version of the NAVIGATION RULES AND REGULATIONS HANDBOOK by the U.S. Coast Guard.

Technical Notes and Rationale 2.5 - Navigation Light Equipment

- Human-propelled craft are generally not required to carry any lighting unless operated at night or in low light conditions. If operated at night or in low light conditions, human-propelled craft are required to have a bright white light that can be deployed in time to avoid collision.
- Human-propelled craft are difficult to see under the best of conditions, and are even harder to see at night. Therefore, to reduce the risk of collision, human-propelled boaters should strongly consider only boating during daylight hours.
- It is difficult to paddle or row while holding a light. Human-propelled boaters who choose to boat at night should strongly consider head lamps and/or white lights attached directly to their life jacket that can be easily pointed toward an approaching boat.
- Multiple lights are easier to see than a single light. Human-propelled boaters who choose to boat at night should strongly consider boating as part of a group.
- The US Coast Guard Commandant Instruction (most recent edition) provides a summary of the most relevant lighting requirements for recreational boaters.
- Paddlers should understand common lighting configurations for power and sail boats in order to avoid crossing into the path of an overtaking, crossing, or oncoming vessel.

Knowledge Assessment (Example Test Questions)

2.5a In times of reduced visibility or at night, which color light should a paddlecraft display?

- A. Red
- B. White**
- C. Green
- D. Amber

2.5b What do a red, green, and white light indicate when seen together at night?

- A. It is the bow of another vessel heading straight toward you.**
- B. It is the port side of another vessel crossing your bow.
- C. It is the starboard side of another vessel crossing your bow.
- D. It is the stern side of another vessel that you are overtaking.

2.5c What do a green and white light indicate when seen together at night?

- A. It is the bow of another vessel heading straight toward you.
- B. It is the port side of another vessel crossing your bow.
- C. It is the starboard side of another vessel crossing your bow.**
- D. It is the stern side of another vessel that you are overtaking.

2.6. Sound Signaling Equipment

2.6.1. The course shall cover the applicable navigation sound signaling requirements as set forth in the most recent version of the NAVIGATION RULES AND REGULATIONS HANDBOOK by the U.S. Coast Guard, describing:

- 2.6.1.1. sound-producing requirements; and
- 2.6.1.2. the use of sound signals.

Technical Notes and Rationale 2.6 - Sound Signaling Equipment

- Operators of human-propelled craft are required to carry a sound signaling device on most waterways. Ideally, this device should be attached to, or stored in, the boater's life jacket and readily available for use.
- Operators of human-propelled craft often use whistles or air horns as sound producing devices. Whistles with cork peas should be avoided – the pea can become waterlogged and reduce the whistle's effectiveness.
- Operators of human-propelled craft should understand sound signals used by other craft to help reduce the risk of collision and accident.
- The US Coast Guard Commandant Instruction (most recent edition) provides a summary of the most relevant requirements for recreational boaters.

<u>Standard 2.6 - Sound Signaling Equipment</u>	<u>In-Class Activity:</u> 1. Set up a boating channel scheme with buoys (objects readily available such as a chair) and have the students practice moving through the course using appropriate sound signals to demonstrate their understanding of both international and inland rules.
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Knowledge Assessment (Example Test Questions)

2.6a Which of the following is typically recognized as a sound signaling device?

- A. Your voice.
- B. Clapping your hands.
- C. A pea-less whistle.**
- D. Drumsticks.

2.6b What is a 'danger signal' used by mariners on open water?

- A. One short blast and one long blast on the horn
- B. Five short blasts on the horn**
- C. Two short and two long blasts on the horn
- D. Three long blasts on the horn

2.7. Visual Distress Signal Equipment

2.7.1. The course shall describe:

- 2.7.1.1. when U.S. Coast Guard approved visual distress signals are required to be carried on board,
- 2.7.1.2. the types of visual distress signals required on boats; and
- 2.7.1.3. the use of visual distress signals when required on boats operating on
 - 2.7.1.3.1. coastal waters, and
 - 2.7.1.3.2. adjoining rivers two (2) or more miles wide at the mouth and up to the first point the river narrows to less than two (2) miles as summarized in the most recent version of the NAVIGATION RULES AND REGULATIONS HANDBOOK by the U.S. Coast Guard.

Technical Notes and Rationale 2.7 - Visual Distress Signal Equipment

- In many cases, human-propelled boat operators are not required to carry visual distress signals. USCG regulations and state regulations give specific guidance. However, even if not required, human-propelled boat operators should consider if visual distress signals are appropriate for their specific boating activity. Visual distress signals may be the only way to gain the attention of others when a boater is in distress.
- Pyrotechnic devices are commonly used by power and sail boats, but may be difficult for human-propelled boat operators to use safely. Pyrotechnics can melt boat hulls and burn boaters who try to use them while also trying to maintain balance.
- Courses should emphasize the importance of being familiar with use of any visual distress signals carried and, whenever possible, practicing with those devices before they're needed.
- The US Coast Guard Commandant Instruction (most recent edition) provides a summary of the most relevant requirements for recreational boaters.

<u>Standard 2.7 – Visual Distress Signal Equipment</u>	In-Class Activity: 1. Show examples of visual distress signal equipment (make sure these are inert) and how they are best used and stored.
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Knowledge Assessment (Example Test Questions)

2.7a How should a red hand-held flare be used as a distress signal?

- A. Wave it in a slow arc over your head
- B. Aim it downwind over the side of the boat**
- C. Move it up and down in front of your chest
- D. Hold it still facing upwind at the stern

2.7b Which statement below is true?

- A. Parachute flares are safe for use on inland rivers.
- B. Hand held flares cannot melt boat hulls
- C. Orange distress flags are approved for day use**
- D. Orange distress flags are approved for night time use

2.8. Recommend Additional Safety Equipment

2.8.1. The course shall recommend boaters carry additional safety equipment appropriate for the circumstances, such as:

2.8.1.1. helmet, whistle, river knife, rescue throw bag, rescue hardware (webbing, carabiners, z-drag kit), leash, first aid kit, signal mirror, flotation bags, and dry bags;

2.8.1.2. dewatering equipment – pump, sponge or bucket; and

2.8.1.3. a map or chart (if applicable) of the area.

2.8.2. Recommend carrying visual distress signals, communication devices and survival items **ON YOUR PERSON** so they are readily available (e.g. whistles, waterproof radios, waterproofed cell phones).

2.8.2.1. Knowing how to use the distress signals, communication devices and survival items carried.

Technical Notes and Rationale 2.8 - Recommended Additional Safety Equipment

- Safety equipment listed in the standard is given as an example only. Other items might also be appropriate; some items listed might not be appropriate for all boating activities. Boaters should consider whether other items, such as tow systems, GPS, compass, emergency shelters, fire starters, et al. are appropriate.
- Cutting tools are important any time boaters are around lines. River knives, as listed in the standard, can include other tools such as shears and hooked emergency cutting tools.
- Helmets are commonly used in whitewater, but also are important safety devices in surf and some other coastal paddling venues (e.g., rock gardens) where there is a risk of head injury.
- Safety equipment should be carried on the boater in a way that allows it to be readily deployed.
- Equipment is useless if the boater doesn't know how to properly use it. Whenever possible, practice use of equipment before it's actually needed.
- Human-propelled craft are often subject to spray and splash, and thus often take on water. Dewatering equipment is important for both comfort and safety.

<u>Standard 2.8 –</u> <u>Recommend</u> <u>Additional Safety</u> <u>Equipment</u>	In-Class Activity: 1. Divide class into small groups. Give each an emergency scenario and have them determine items they could use if they had it available on a boat. Prioritize most important items.
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Knowledge Assessment (Example Test Questions)

2.8a Which of the following safety related items should ideally be carried on your person?

- A. First aid kit
- B. Whistle**
- C. Sponge
- D. Extra clothing

2.8b Leashes are important safety devices for:

- A. Stand up paddleboards (SUPs)**
- B. Whitewater kayaks
- C. Rowing sculls
- D. Touring canoes

3. Trip Planning and Preparation

3.1. Checking Local Weather and Water Conditions

- 3.1.1. The course shall describe how to make informed boating decisions based on forecasted local weather and water conditions.
- 3.1.2. The course shall also describe:
 - 3.1.2.1. dangerous weather conditions such as strong winds, storms, lightning, hurricanes and fog;
 - 3.1.2.2. dangerous water conditions such as strong currents, waves, hydraulics and high water;
 - 3.1.2.3. dangerous areas and features in and around the water, such as rocky shores, man-made structures and debris, and trees or other items in the waters; and
 - 3.1.2.4. their importance in trip planning.

Technical Notes and Rationale 3.1 - Trip Planning and Preparation

- Courses should emphasize that boaters must be willing to change plans in the event that weather and water conditions change. Conditions that are perfect one day may be life threatening the next.
- Trip planners should focus on avoiding hazards whenever possible, and must be willing to postpone or cancel trips. Once a trip starts, hazardous conditions can be much harder to avoid. Choosing a different boating location, shortening the length of time of a boating trip, or choosing to not boat at all, must always be options.
- Changes in weather distant from the boating location can lead to dramatic changes in water conditions. Rainstorms can lead to rapid rises in river water levels. Tidal currents change over lunar cycles.
- Debris in the water can create an entrapment hazard. Entrapments are a leading cause of death among human-propelled boaters. Boaters should always be careful around any kind of debris or man-made structure.

<u>Standard 3.1 - Checking Local Weather And Water Conditions</u>	<u>In-Class Activities:</u> <ul style="list-style-type: none">1. List sources for weather information and forecasts (TV, radio, internet, look at clouds)2. Discuss U.S. Coast Guard Local Notice to Mariners and how to obtain it for the area.3. Listen to actual marine weather information via the weather channel on a VHF marine band radio (could be tape recorded if marine weather station not available)4. Check with other paddlers / anglers, anywhere boaters tend to gather.
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Knowledge Assessment (Example Test Questions)

3.1a If a thunderstorm is approaching, it is best to take which action?

- A. Head toward the nearest safe shore**
- B. Paddle/row quickly through the storm
- C. Anchor in place
- D. Head toward the area with clearest visibility

3.1b What is a common sign of an approaching storm?

- A. Darkening clouds**
- B. Rising barometer
- C. Glassy water
- D. Increasing fog

3.2. Checking Local Information

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

3.2.2. The course shall describe how to obtain information and inform the boater regarding local and state laws and regulations.

Technical notes and Rationale 3.2 - Checking Local Information

- Local information can be found in many sources including guidebooks; outfitters, liveries, and marinas; local water trail guides; and local boaters. State Department of Natural Resources boating websites often include discussions of newly developed hazards. *Notices to Mariners* also provide critical information. Conversations with local boaters can provide up-to-date information about recent changes in boating venues.
- Each boater is responsible for ensuring they follow all applicable laws, rules and regulations. Rules and regulations can change from one location to another, and can change over time.
- Hazards can change from day to day. Boaters should be prepared for changing conditions.
- Common man-made hazards include dams, weirs, piers, cables, debris piles, and bridges, as well as other boats. Common natural hazards include shoals, waves, wind, tides, rapids, bars, and currents.

<u>Standard 3.2 - Checking Local Information</u>	In-Class Activities: <ol style="list-style-type: none">1. Watch video clip on low-head dams such as <u>Low Head</u> http://video.google.com/videoplay?docid=-6846124409391034920&ei=VHnDSrj5GJ_oqQLMt-Uv&q=low+head+dams&hl=en&client=safari#.2. Review local charts to determine how to identify rapids, tides, sand bars, currents, whitewater, dams, bridges, sand bars, waves, areas of heavy boat traffic.3. Discuss U.S. Coast Guard Local Notice to Mariners and how to obtain it for the area.4. Check with other paddlers / anglers anywhere boaters tend to gather.
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Knowledge Assessment (Example Test Questions)

3.2a Which of the following is true about low head dams?

- A. Dams are easily spotted from upstream.
- B. Dams can be safely approached from downstream.
- C. Dams should be avoided both above and below.**
- D. Dams have a strong backwash above the dam.

3.2b Using a US Geological Survey (USGS) topographic map can help locate known local hazards. Which items are NOT found on USGS maps?

- A. Rapids, tides and sand bars.
- B. Dams and bridges.
- C. Areas of current boat traffic congestion.**
- D. Security zones.

3.3. Filing a Float Plan

3.3.1. The course shall describe:

- 3.3.1.1. the importance of filing a float plan, and
- 3.3.1.2. the basic information that should be included; and
- 3.3.1.3. leaving the float plan with an appropriate responsible person.

Technical Notes and Rationale 3.3 - Filing a Float Plan

- Float plans need not be excessively detailed. At a minimum, they should include where the boater is boating, a description of the boats in the group, how many people are in their group, when the boater should be considered overdue, and who to contact if the boater is overdue.
- Boaters need to be sure to check in with the person keeping their float plan after they are safely off the water.
- Boaters need to be sure that if they change their plans, they notify the person keeping their float plan.
- Float plans should always be filed. Accidents don't only happen during long or remote trips.
- Float plans can be filed verbally, in writing, or electronically.
- Examples of float plans can be found at a wide range of websites.

Standard	In-Class Activities:
3.3 - Filing a Float Plan	<p>1. Show a blank formal float plan to the students; then give them a blank float plan form and fill out together as a class, based on the specifics of a hypothetical boat trip; turn paper over and ask students to convert the float plan into the essential information for an email or text message to a family member who is staying ashore.</p> <p>2. Offer a list of online resources that provide an Internet based application with float plans, e.g. http://uscgboating.org/recreational-boaters/floating-plan.php or http://www.americancanoe.org/news/news.asp?id=196491&hhSearchTerms=%22float+and+plan%22.</p>

Knowledge Assessment (Example Test Questions)

3.3a What should you do with a float plan before each outing?

- A. File it with the U.S. Coast Guard.
- B. Mail it to the state police.
- C. Give it to a local marine patrol officer.
- D. Leave it with a relative or friend.**

3.3b What should you do if your plans change after you've filed a float plan?

- A. Notify the person keeping the float plan of all changes**
- B. Notify the US Coast Guard of the change in plan
- C. Never change plans after you've filed a float plan
- D. Notify the local Sheriff's office of the change in plan

3.4. Preventative Maintenance

- 3.4.1. The course shall describe and illustrate where possible:
- 3.4.1.1. the need for regular inspection; and
 - 3.4.1.2. maintenance of the boat, gear and related equipment, including:
 - 3.4.1.2.1. inspecting the boat for water tightness, including hull integrity, gaskets, and all hatch covers;
 - 3.4.1.2.2. patching holes with a material suited to the composition of the hull;
 - 3.4.1.2.3. cleaning the boat to remove all foreign bodies, mud and aquatic invasive species;
 - 3.4.1.2.4. storing the boat in accordance with manufacturer recommendations;
 - 3.4.1.2.5. checking, replacing as necessary, and tightening all screws and deck fittings;
 - 3.4.1.2.6. treating the hull with an appropriate UV inhibitor as recommended by the manufacturer;
 - 3.4.1.2.7. checking flotation air bags to be sure they are effectively secured and don't leak;
 - 3.4.1.2.8. checking lines and grab handles for fraying;
 - 3.4.1.2.9. checking paddles/oars; and
 - 3.4.1.2.10. all other equipment to ensure it conforms to manufacturer performance guidelines and specifications.

Technical Notes and Rationale 3.4 - Preventative Maintenance

- Craft integrity should be checked before every trip. For most human-propelled craft, this check might only take a minute or two. However, a quick check of the boat can prevent a disastrous experience.
- Any needed repairs should be completed before starting the trip.
- Ideally, boats are checked after every trip so that repairs can be completed in advance of upcoming trips.

<u>Standard 3.4 - Boat Preventative Maintenance</u>	<u>In-Class Activities:</u> <ul style="list-style-type: none">1. Generate a list with the class of what should be checked and maintained regularly.2. Help the students understand where they can obtain check lists and other information regarding routine maintenance checks.3. Remind students to incorporate a safety equipment (e.g. life jackets) check as well.
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Knowledge Assessment (Example Test Questions)

3.4a Preventative maintenance should include all the items below EXCEPT:

- A. Inspecting the hull integrity before trips
- B. Checking lines and handles for fraying
- C. Checking to make sure the boat's color is still popular**
- D. Checking flotation bags to make sure they don't leak

3.4b When should screws and deck fittings be checked for tightness and good function?

- A. Before every trip**
- B. Only at the beginning of the boating season
- C. When a leak develops
- D. Only at the end of the boating season

3.5. Pre-Departure Checklist and Passenger Communication

3.5.1. The course shall describe:

- 3.5.1.1. the importance of using a pre-departure checklist, and
- 3.5.1.2. conducting a safety discussion with all in the party.

Technical Notes and Rationale 3.5 - Pre-Departure Checklist and Passenger Communication

- Human-propelled boats often carry only a single boater. Instead of having several passengers on a single boat, there could be a group of individual boaters all in their own single-occupant boats. This standard applies not just to the boaters on a single boat, but also to all in the boating group.
- Consistently used checklists reduce the chance of forgetting important equipment.
- A safety discussion ensures everyone in the group knows the planned route, anticipated hazards, emergency plans, and the location of first aid and repair equipment.
- Individual and group responsibility should be stressed.

<u>Standard 3.5 – Pre-Departure Checklist</u>	In-Class Activity: 1. Have students brainstorm important items/information to be included in a Pre-Departure checklist.
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Knowledge Assessment (Example Test Questions)

3.5a On a recreational outing, the location of emergency equipment such as first-aid kit, rescue equipment and emergency distress signals should be reviewed before departure with which persons?

- A. Everyone in the group**
- B. Paid crew members
- C. All non-swimmers
- D. Adults over age 21

3.5b What should be reviewed in a Pre-Departure safety discussion?

- A. Light or shoot off a flare to demonstrate use
- B. Discuss any known local hazards**
- C. Demonstrate how to properly anchor from the stern
- D. Demonstrate how to use hands to fend off from the dock

3.6. Transporting

3.6.1. The course shall describe proper procedures for transporting a non-motorized boat to prevent accidents and property damage, including:

- 3.6.1.1. making sure the boat is securely fastened to the car or racks, and
- 3.6.1.2. using proper tie downs and knots.

Technical Notes and Rationale 3.6 - Transporting

- Some types of boats are easily transported. For example, inflatable boats may be deflated and stored in a car's trunk. Others are more difficult. For example, sea kayaks may require cradles on a roof rack or trailer, and flags to indicate the end of the boat. Regardless of how the boat is transported, the driver of the transporting vehicle is responsible for properly securing the boat so that it doesn't move during transport, so that it doesn't endanger others, and so it meets all traffic laws.
- General principles should be emphasized. These include attaching the boat to a rack or trailer with straps or ropes that cross perpendicular to midline, attaching bow and stern to the vehicle to reduce the risk of the boat ends lifting up due to wind, and making the boat visible with flags if it extends beyond the length of the transporting vehicle.
- If a rack is used, the rack must be securely attached to the transporting vehicle.
- If a trailer is used, all applicable laws and regulations must be followed. Drivers may need to obtain insurance or register the trailer.
- Human-propelled boats are generally carried from a vehicle to the water's edge. There may be some instances where a boat is carried while scouting or during a portage. When carrying the boat, boaters must use good lifting technique. Some boats may require several people to carry them. When carrying a boat, boaters must be careful to remember the boat is long and could accidentally hit other people or objects.

<u>Standard 3.6 – Transporting and Trailering</u>	<u>In-Class Activities:</u> 1. Take students to a parking lot to see a car-topped boat and point out critical parts that should be regularly inspected. If not possible, show pictures of a car-topped boat and discuss. 2. Watch a video demonstrating the boat launching process, including boat preparation at the launch site.
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Knowledge Assessment (Example Test Questions)

3.6a When carrying a boat on a roof rack, drivers should ideally do all the following EXCEPT

- A. Secure the boat to the roof rack with strong ropes or straps
- B. Follow manufacturer's instructions for the maximum weight on the rack
- C. Secure the bow and stern of the boat to the vehicle
- D. Use a passenger to hold the boat on the roof**

3.6b When carrying a boat in the bed of a truck, drivers should ideally do all the following EXCEPT:

- A. use a flag if the vessel sticks out beyond the length of the truck
- B. let the boat sit in the truck bed without securing it further**
- C. keep the truck gate closed if possible
- D. secure the boat to keep it from shifting around the truck bed.

4. Safe Boat Operation

4.1. Operator Responsibilities

4.1.1. The course shall describe:

- 4.1.1.1. a boater's ultimate responsibility for his or her personal safety;
- 4.1.1.2. the safety of anyone else on board and all activity aboard the boat; and
- 4.1.1.3. how to evaluate currents and determine which should be avoided by the novice paddler/rower.

4.1.2. This responsibility extends to other water users and includes but is not limited to:

- 4.1.2.1. refraining from careless, reckless, or negligent operations on the water;
- 4.1.2.2. abiding by other general boater courtesy;
- 4.1.2.3. crossing a channel as a group;
- 4.1.2.4. understanding the impact of waves and wakes on boat handling; and
- 4.1.2.5. sharing water features such as eddies and rapids with other paddlers.

Technical Notes and Rationale 4.1 - Safe Boat Operation

- A boater's ultimate responsibility for their own personal safety includes the responsibility to avoid and prevent problems, and to self-rescue to the extent possible.
- Members of a boating group have an obligation to assist each other if they are in distress to the extent it is safe to do so. There is a strong ethos in the boating community that indicates all boaters should attempt rescue to the best of their abilities. However, boaters are not expected to place themselves at undue risk.
- Careless, reckless or negligent operations are always inconsiderate, and might also be illegal.
- Human-propelled craft are often small, slow, and hard to see. Operators of human-propelled craft should focus on situational awareness and avoiding problems.

<u>Standard 4.1 - Operator Responsibilities</u>	In-Class Activities: <ul style="list-style-type: none">1. Show the most recent USCG Boating Accident Statistics and discuss boating incidents, accidents and fatalities and related causes.2. Discuss how they can assist law enforcement by reporting violations of law and/or suspicious activity.
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Knowledge Assessment (Example Test Questions)

4.1a When crossing a channel, operators of human-propelled craft should choose a location where:

- A. The channel is very wide, so that other vessels have room to maneuver
- B. The channel is narrow, so they can cross quickly**
- C. The channel is in a bend with limited visibility, so they won't upset other boaters
- D. The channel currently has heavy traffic, so they can surf the wake of other vessels

4.1b When crossing a channel, operators of human-propelled craft should:

- A. Cross as a group at the narrowest point**
- B. Cross slowly at the narrowest point, to save energy
- C. Cross at a diagonal so that they're close to facing on-coming traffic
- D. Cross wherever it is most convenient based on their final destination

4.2. Influence of Drugs and Alcohol on Boat Operation

4.2.1. The course shall describe:

- 4.2.1.1. the effects of drinking alcohol or using drugs while boating, and
- 4.2.1.2. the boating laws pertinent to operating a boat while under the influence.

Technical Notes and Rationale 4.2 - Influence of Drugs and Alcohol on Boat Operation

- Alcohol consumption while boating slows reaction time, impairs judgment and increases the risk of accidents.
- Environmental stressors associated with boating (e.g., sun, wind, fatigue, dehydration) can intensify the effects of alcohol and drugs.
- Boating while intoxicated can lead to both criminal and civil penalties.
- Legal medications, both over-the-counter and prescription, can adversely affect a boater's judgment and reaction time. Boaters should speak with their health care provider if they have any questions regarding the effects of prescription and non-prescription medications in an outdoor environment.

<u>Standard 4.2 - Influence of Drugs and Alcohol on Boat Operation</u>	In-Class Activity: 1. Show the most recent USCG Boating Accident Statistics and discuss the number of accidents and fatalities attributed to boating under the influence. 2. Show National Safe Boating Council video "Almost a Perfect Day."
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Knowledge Assessment (Example Test Questions)

4.2a How does alcohol use affect boat operators and passengers?

- A. Attention span is increased
- B. Reaction time is improved
- C. Risk taking is decreased
- D. Balance is impaired**

4.2b Which contributes to about 1/5 of fatal boating accidents nation-wide?

- A. Improper engine ventilation
- B. Not using navigation lights
- C. Operator intoxication**
- D. Improper anchoring

4.2c Boating while intoxicated (BWI) is all of the following EXCEPT:

- A. illegal
- B. unwise
- C. safe**
- D. strongly discouraged by law enforcement officials and boating safety experts

4.3. Navigation Rules

4.3.1. The course shall utilize the content of the U.S. Coast Guard Navigation Rules and Regulations Handbook (most current version) to describe:

- 4.3.1.1. generally avoiding channels used by larger boats and, if navigating in a channel, giving way to vessels constrained by the channel;
- 4.3.1.2. avoiding collision with powerboats by keeping a sharp lookout, using light and sound signals to identify your presence, and maneuvering out of the way;
- 4.3.1.3. observing and operating in accordance with homeland security measures by keeping a safe distance from military and commercial ships at sea and in port and observing all restrictions in security zones;
- 4.3.1.4. observing restricted areas near dams, power plants and bridges; and
- 4.3.1.5. the duty to render necessary assistance.

4.3.2. The course shall include, verbatim, the following 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 are set forth in. For a complete listing of the navigation rules, refer to the latest version of the NAVIGATION RULES AND REGULATIONS HANDBOOK by the U.S. Coast Guard (latest edition). For State-specific navigation requirements, refer to the rules and laws that apply in the state where you intend to boat.”

Technical Notes and Rationale 4.3 - Navigation Rules

- Boating rules apply equally to all craft. However, human-propelled craft are slow and hard to see, which can lead to collisions with other craft. Although the human-propelled boat operator might not have violated any rules, it is little consolation after they’ve been run over by a power boat. Human-propelled boat operators must strive to avoid close interaction with larger and faster vessels, and with vessels constrained by draft. They should assume that other boaters don’t see them.
- All boaters must respect security measures. Do not approach military or law enforcement vessels unless directed by the vessel’s commander to do so.
- All boaters are responsible for staying aware of any changes in boating laws and regulations.
- Human-propelled boaters should be familiar not only with rules that apply to their boats, but also to the rules applying to power and sail boats. Understanding the rules that apply to other craft will help human-propelled craft anticipate and avoid problems with those other craft.
- The US Coast Guard Commandant Instruction (most recent edition) provides a summary of the most relevant requirements for recreational boaters.

<p><u>Standard 4.3 -</u> <u>Navigation</u> <u>Rules</u></p>	<p><u>In-Class Activities:</u></p> <ol style="list-style-type: none"> 1. Read applicable Navigation Rules and interpret what the rule means in layman's terms. 2. Show a video clip that illustrates basic Navigation Rules principles. 3. Provide scenarios to determine if Navigation Rules were/were not followed appropriately. 4. Show the most recent USCG Boating Accident Statistics and discuss the number of accidents and fatalities that are caused by Navigation Rules violations. 5. Practice proper navigation around the room. Pretend people are the boats and have them move through a course in the room. Practice correct sound signals, collision avoidance rules, and act responsibly with other boats they encounter. 6. Provide Rules of the Road knowledge study aids (e.g. flash cards). 7. Discuss how the navigation rules apply to non-motorized craft such as paddlers. 8. Show the NASBLA Boating Dashboard from the NASBLA website to review numbers of navigation rule violations.
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Knowledge Assessment (Example Test Questions)

4.3a When the operator of a vessel is taking action to avoid collision, which of the following actions is acceptable?

- A. A series of small course changes to stay out of the way.
- B. A series of speed changes to stay out of the way.
- C. A large and obvious course change made in ample time.**
- D. A large increase in speed to pass ahead of the other vessel.

4.3b What sound signal should be used to signal danger or when you do not understand or disagree with another vessel's intentions?

- A. Three short blasts
- B. Three prolonged blasts
- C. Five prolonged blasts
- D. Five or more short blasts**

4.3c Human-propelled boat operators should do all the following EXCEPT:

- A. avoid channels and congested waterways
- B. wear bright colors to make themselves more visible
- C. assume larger vessels may not see them
- D. assume larger vessels will avoid them because they have right of way over power vessels**

4.3d What are all boat operators required to do during all hours when a boat is underway?

- A. Maintain a proper lookout**
- B. Display an all-around white light
- C. Monitor the VHF radio
- D. Stay in the defined navigable channel

4.4. Aids to Navigation

4.4.1. The course shall describe:

4.4.1.1. the U.S. Aids to Navigation (USATONS) as they are relevant to boaters, including:

4.4.1.1.1. understanding channel markers;

4.4.1.1.2. understanding regulatory markers, such as those marking dams, submerged objects and other hazards; and

4.4.1.1.3. homeland security restrictions.

Technical Notes and Rationale 4.4 - Aids to Navigation

- Aids to Navigation (ATONS) are like road signs for waterways. Although many human-propelled boat operators may never make direct use of most ATONS, they should have a basic awareness of ATONS, and particularly should be aware of regulatory and informational markers.
- Human-propelled boat operators need to recognize channel markers in order to avoid accidentally boating in channels used by larger boats for navigation.

<u>Standard 4 .4 - Aids to Navigation</u>	<u>In-Class Activities</u>
	1. Display and discuss the purpose and use of Aids to Navigation. 2. Display and discuss the purpose and use of regulatory markers. 3. Have students identify various types of buoys, light characteristics, markers, etc. and state the purpose.

Knowledge Assessment (Example Test Questions)

4.4a Regulatory and informational markers are easily identified through which features?

- A. Vertical black and white striping
- B. Triangular shape and red lettering
- C. Yellow square or rectangular symbol
- D. White color with orange geometric shapes**

4.4b A regulatory marker with a cross inside of an orange diamond indicates which type of area?

- A. Danger
- B. Shallow
- C. Exclusion**
- D. Controlled

4.5. Boarding, Propelling, Exiting and Securing the Boat

4.5.1. The course shall describe:

4.5.1.1. how to safely board and exit a small boat;

4.5.1.2. sufficient clearance or proper fit so that entry into and exit from the boat is not impeded; and

4.5.1.3. basic ergonomics of rowing or paddling (e.g. proper body and arm position to reduce the possibility of injury and to maintain balance in/on the boat).

4.5.2. The course shall explain how to secure the boat at the shore to prevent it from drifting away.

Technical Notes and Rationale 4.5 - Boarding, Propelling, Exiting and Securing the Boat

- There are many types of human-propelled craft, each of which are propelled with different techniques. However, there are common principles that apply to them all.
- In general, keep weight low and centered when boarding the craft. Make sure that entry and egress are not impeded by equipment or boat outfitting.
- When propelling the craft, boaters should maintain upright posture and use core muscles to the extent possible. Proper ergonomics reduces the risk of injury and increases a boater's efficiency.
- Human-propelled boats can be tied to a pier or mooring. However, they are most commonly removed from the water and stored on land well away from the water's edge. Unsecured craft can drift away, leading to loss of the boat and potentially to unnecessary searches for lost boaters.
- Course designers may add additional information, outside of this standard, that provides more detail on the operation of one or more types of human-propelled craft.

<u>Standard 4 .5</u> <u>– Safe Boat</u> <u>Operation</u>	<u>In-Class Activities:</u> 1. Place a kayak on a towel or blanket on top of a picnic table. Put the boater in the boat and have them practice turning strokes, placing the paddle against the table's edge to get power for the turn. Helps emphasize blade angle and, for more advanced students, allows discussion of foot pressure (for kayaks) and generating power from the torso. 2. Practice holding the paddle and performing strokes while standing or sitting in a chair. 3. Practice re-entry techniques on dry land. 'Heel hook' and 'cowboy style' re-entries can be done on land and still simulate in-water body motion. 4. Practice getting in & out, or on & off of the boat. 5. Practice edge control drills.
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Knowledge Assessment (Example Test Questions)

4.5a Which is the safest way to enter a rowboat from a dock?

- A. Step to the center of the boat
- B. Step to the far side of the boat
- C. Step to the near side of the boat
- D. Step on the seat of the boat

5. Emergency Preparedness

5.1. Assisting Other Boaters

5.1.1. The course shall describe procedures and tools for assisting other boaters in difficulty, while minimizing risk to the rescuing boater.

Technical Notes and Rationale 5.1 - Assisting Other Boaters

- Avoiding and preventing problems are the best ways to manage problems.
- If problems cannot be avoided, each boater should be prepared to rescue themselves initially and then to assist in the rescue of others.
- If boaters within a group are unable to rescue a victim, they should seek outside assistance from other boaters and/or professional rescuers
- Boaters are generally required to render assistance when needed, to the extent they are able to do so safely. However, a boater's first obligation is to prevent further problems. Boaters are not required or expected to place themselves or their boat at serious risk in order to rescue others.
- If rescue tools and equipment (e.g., throw ropes, tow lines) are used, boaters should practice their use before they're needed.

<u>Standard 5.1 -</u> <u>Assisting</u> <u>other boaters</u>	In-Class Activities: 1. Discuss various ways to render assistance. 2. Show video clips of self-rescue.
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Knowledge Assessment (Example Test Questions)

5.1a What is the primary responsibility for a vessel operator assisting a boat in distress?

- A. Keeping their vessel and themselves out of danger.**
- B. Finding fault with the operator of the distressed boat.
- C. Operating the radio on the distressed boat.
- D. Notifying the Coast Guard of the situation.

5.1b According to the Navigation Rules, how are boat operators required to respond to a boat in distress?

- A. Render assistance to a boat in distress to the extent they are able.**
- B. No assistance is required.
- C. Make a note of the location and report it as soon as you return from your outing.
- D. File a boating accident report to the local authorities.

5.2. Capsizing/Falls Overboard

5.2.1. The course shall describe how to prevent and respond to these emergencies. The prevention recommendations will include at least the following:

- 5.2.1.1. stay centered and low,
- 5.2.1.2. avoid standing and sudden moves,
- 5.2.1.3. maintain three points of contact,
- 5.2.1.4. never overload, and
- 5.2.1.5. avoid rough water, and
- 5.2.1.6. additional techniques specific to individual craft (e.g. falling from a Stand Up Paddleboard).

5.2.2. The responding procedures shall include at least the following:

- 5.2.2.1. wearing life jackets,
- 5.2.2.2. taking a head count,
- 5.2.2.3. staying with the boat when appropriate,
- 5.2.2.4. signaling for assistance,
- 5.2.2.5. using improvised floating aids,
- 5.2.2.6. initiation of procedures to recover people in the water, and
- 5.2.2.7. proper procedures to use when boating in moving water.

Technical Notes and Rationale 5.2 - Capsizing/Falls Overboard

- Capsizing and falling overboard are all common for human-propelled boaters. In fact, capsizing is considered a normal part of the activity for many human powered boaters. Boaters should be prepared to swim. This includes wearing a life jacket and dressing for the water temperature.
- General principles in 5.2.1 might sometimes be violated. For example, canoe polers and SUP paddlers generally stand. However, even in these cases, standing is always less stable, and stability is improved by dropping to a kneeling, sitting or prone position with a lower center of gravity.
- Each craft has specific unique safety and rescue characteristics. For the purpose of this standard, course designers should focus on techniques common to all craft. However, they also may add craft specific information not tested by this standard.
- Moving water in 5.2.2.7 includes motion from wind, tidal currents, river currents, surf, and any other water motion. In rivers, standing increases the risk of foot entrapment in river bottom features, a leading contributing factor to death for human-propelled boaters.
- In general, boaters should stay with their boat after capsize or a fall overboard.

Standard 5.2 - <u>Capsizing/Falls</u> <u>Overboard</u>	In-Class Activities: 1. In-class discussions: <i>Have you ever experienced falling overboard? Why do people fall overboard?</i> (e.g. standing up in a small boat while underway, sitting unsafely, unbalanced boat, leaning over the side) 2. In- class discussions: <i>What should you do in a case of falling overboard?</i> (e.g. stay calm, alert others in the group, put on a Life Jacket, attempt self-rescue.) 3. In- class discussions: <i>How can falling overboard be prevented?</i> (e.g. Stay balanced in the boat, Do not lean over the side, Maintain three points of contact with boat when moving around.)
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Knowledge Assessment (Example Test Questions)

5.2a What should you do when capsized in a swift river current?

- A. **Keep your boat downstream of you and swim across the current to the side**
- B. Stand up and attempt to slowly walk to shore while holding your boat
- C. Let go of your boat and swim as fast as you can against the current
- D. Keep your boat upstream of you and swim across current to the side

5.2b How should you move around in a small boat to reduce the risk of falling overboard?

- A. Stand up with feet shoulder-width apart
- B. Confine movement to the back of the boat
- C. **Stay low and maintain three points of contact whenever possible**
- D. Confine movement to the front of the boat

5.2c If a vessel overturns in open water, which generally is your safest course of action?

- A. Begin to swim to the closest shore
- B. Swim to the last vessel you passed
- C. Tread water to reduce the risk of hypothermia
- D. **Stay with the boat and climb on top of it**

5.2d Which action on a boat in motion increases the risk of capsize?

- A. **Sitting on the gunwales**
- B. Staying low in the boat
- C. Maintaining three points of contact whenever possible
- D. Keeping centered in the boat

5.2e What is the recommended way to move about in a small boat?

- A. **Keep low and move near the boat's center line**
- B. Confine movement to the forward half of the boat
- C. Stand straight up with legs apart for greater balance
- D. Position people on one side and move along the opposite side

5.3. Cold Water Immersion

5.3.1. The course shall describe the effects of cold water immersion and how to prepare for, prevent, and respond to a cold-water immersion event, including:

5.3.1.1. Stages and the physiological effects of cold water immersion:

5.3.1.1.1. Initial reaction (cold shock response; gasping and hyperventilation);

5.3.1.1.2. Short-term response (cold incapacitation; swim failure, functional loss); and

5.3.1.1.3. Long-term response (immersion hypothermia).

5.3.1.2. Preparation and Prevention:

5.3.1.2.1. Wearing a life jacket enhances chances of survival during each stage;

5.3.1.2.2. Carrying communication and signaling devices on person; and

5.3.1.2.3. Preventing capsizing, swamping and falls overboard; and.

5.3.1.2.4. Proper clothing to enhance survival following cold water immersion.

5.3.1.3. Response:

5.3.1.3.1. Initial reaction (first 1-5 minutes) - airway protection and breath control;

5.3.1.3.2. Short-term (first 30 minutes) – performing the most important functions first (emergency communication, situational assessment, decision making, and self-rescue activities); and

5.3.1.3.3. Long-term (after 30 minutes or more) – slow body core heat loss and be prepared at all times to signal rescuers.

Technical Notes and Rationale 5.3 - Cold Water Immersion

- Boaters should assume they will capsize or fall overboard and be prepared to do so.
- Human-propelled boaters are often exposed to splash and spray. They commonly sit or kneel in water, and are generally separated from water only by their clothing and a thin piece of boat hull. They can become hypothermic without ever capsizing or falling overboard. When they become hypothermic, their risk of capsize increases greatly.
- This boating safety standard is not intended to replace a first aid course. It provides only basic guidelines on recognition and treatment of problems associated with cold water immersion. Boaters should consider taking a first aid course that includes methods to treat hypothermia and cold water immersion.
- Post rescue response can increase the survival rate of a victim with life threatening injuries. It is important to match the level of First Aid and Rescue training with the level of risk of the activity.

<u>Standard 5.3 – Cold Water Immersion</u>	<u>In-Class Activities:</u> 1. Cold Water Tank Demonstration: Have students place hand in ice water for 30 seconds and then attempt to pick up items or tie a knot with cold hands. Stress how difficult it would be to buckle a life jacket in cold water if not wearing it. 2. Watch a video on the effects of cold water immersion, such as “Cold, Wet and Alive” or “Cold Water Bootcamp”.
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Knowledge Assessment (Example Test Questions)

5.3a Which of the following is likely to occur during the initial shock from falling into cold water?

- A. **Gasping and rapid breathing**
- B. Loss of feeling in the limbs
- C. Cooling of organs in the body core
- D. Stiffness in the fingers and limbs

5.4 Boating Accident Reports

5.4.1. The course shall describe:

5.4.1.1. what kinds of boating accidents require an accident report, and

5.4.1.2. how, when and where to file the report, and

5.4.1.3. reporting accidental loss of boats to reduce likelihood of unneeded search efforts.

5.4.2. The course shall include a sample accident report form, which can be included in the textbook, or as a separate handout, or as an online link.

Technical Notes and Rationale 5.4 - Boating Accident Reports

- Boating accident reports help provide statistical information to regulatory and enforcement agencies, which is used to aid boating safety course design and to develop boating safety strategies.
- Reports should be filed anytime there is a loss of life, hospitalization or ED treatment of a boater, or damage in excess of \$2000 to a boat. Local regulations may require reporting in additional situations.
- Additional information regarding accident reporting is available on the U.S. Coast Guard's website at <http://www.uscgboating.org/recreational-boaters/accident-reporting.php>.

<u>Standard 5.4 – Boating Accident Reports</u>	<u>In-Class Activities:</u> 1. Provide an accident scenario for the class. Have each student assume the role of the boat operator in completing a Boating Accident Report Form. 2. Review the requirements for filing a Boating Accident Report with state authorities.
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Knowledge Assessment (Example Test Questions)

5.4a What is the first action required of a boat operator who witnesses a boating accident?

- A. Provide assistance**
- B. Keep out of the way
- C. Write an accident report
- D. Wait for rescue personnel

5.4b When is a boat operator or owner required to submit an accident report?

- A. When public property is damaged.
- B. When someone is injured and requires medical treatment.**
- C. When there is a fuel spill of more than one pint.
- D. When property damage is less than \$100.

6. Other Water Activities

6.1. Hunting and Fishing

6.1.1. The course shall inform people:

6.1.1.1. who hunt and fish from human-propelled boats that they are boaters, and

6.1.1.2. that they need to follow safe boating practices.

6.1.2. Information must be provided about accident risks relevant to this group of boaters.

Technical Notes and Rationale 6.1 - Hunting and Fishing

- Hunters and anglers may move rapidly and have sudden weight shift, increasing their risk of capsize or fall overboard.
- Hunters and anglers should be encouraged to think of themselves as boaters, to be aware of and follow boating regulations, and to develop their boating skills and knowledge. Roughly a third of all boating fatalities occurred during hunting and fishing trips.
- As with all other boaters, hunters and anglers should wear their life jacket while aboard a boat.

<u>Standard 6.4 - Hunting & Fishing</u>	In-Class Activities: 1. Videos on hunting and fishing can be used to demonstrate specific boating dangers. Boat Fly Fishing Safety Video by Anglian Water - Part 1: Safe Start Boat Fly Fishing Safety Video by Anglian Water - Part 2: Basic Watercraft 2. Use Boat US hunting and fishing materials for any hunters or anglers in the class
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Knowledge Assessment (1-2 Example Test Questions)

6.4a People who hunt or fish from a boat should follow the boating safety rules and practices established by which organization(s)?

- A. The Association of Insurance Underwriters
- B. The U.S. Coast Guard and the applicable State boating agency**
- C. Boat manufacturers and dealers
- D. National hunting and fishing clubs

6.4b Which is the most stable position for an angler or a hunter in a small boat?

- A. Standing at the back of the boat
- B. Sitting in the center of the boat**
- C. Leaning over the side of the boat
- D. Crouching at the front of the boat

Chapter 4 - “Taking it Further”

State-Specific Boating Information

In addition to addressing the American National Standard, it is recommended that a course contain (as part of the text or a separate handout) state-specific information in regard to boating laws/regulations and local boating conditions. The following state-specific topics are required for NASBLA and state sanctioning*:

- A. Boat registration and titling requirements such as the number of years a registration decal is valid, expiration date of registration, and decal placement.
- B. 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.
- C. Additional equipment requirements such as anchor, engine cutoff lanyard, bailing devices, visual distress signals, etc.
- D. Mufflers and noise levels.
- E. Requirements for waste disposal, no discharge zones, and litter laws.
- F. Special requirements for mandatory education, licensing, rental operation, and proficiency test certifications.
- G. Age/horsepower restrictions and adult supervision requirements for children.
- H. Laws further defining careless, reckless, unsafe, and negligent operations such as becoming airborne and operating less than specified distances behind a water skier.
- I. Boat speed limits and operation in zoned and restricted areas.
- J. Laws on operating under the influence of drugs and alcohol such as implied consent and Blood Alcohol Content (BAC) levels.
- K. Law enforcement officer authority and boater responsibility to comply.
- L. 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.
- M. A state approved boating accident report form or U.S. Coast Guard form.
- N. Other laws or regulations as required by the state approving authority.

*NOTE: All Human-Propelled courses submitted to NASBLA for review and sanctioning need to include state-specific information and provide supplemental materials and instruction to meet the intent of this requirement. State-specific content will 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 State-specific materials.

<u>State-Specific Boating Information</u>	<u>In-Class Activity:</u> <ol style="list-style-type: none"> 1. Invite a state marine patrol officer or boat education officer to present this part of the class. Market it by advertising he/she will be there. 2. Find out what “advanced” courses are coming up and have the information available for anyone who may show an interest.
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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.

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.

<u>Boat Types and Uses</u>	<u>In-Class Activities:</u> <ol style="list-style-type: none"> 1. Have pictures of the different types of boats so that the students can see them as they are being discussed. 2. Provide images of common hull designs. Have students match the hull shape with the description of its performance.
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R2 - Boating Terms

The course should describe commonly used boating terms in addition to those terms required to follow the Navigation Rules. 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.

<u>Boating Terms</u>	<u>In-Class Activities:</u> <ol style="list-style-type: none"> 1. Write boating-specific terms and their definitions on chart paper or the board throughout the class so that they can be referenced while teaching the content. 2. Discuss the original of certain terms, such as ‘port’, ‘starboard’, ‘gunwale’, etc.
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R3 - Boat Theft Prevention

The course should contain information that addresses actions the boat owner can take to deter or prevent boat theft. Statistics indicate that boat theft is increasing. Boat owners can deter theft and assist law enforcement authorities through their actions and observations.

<u>Boat Theft Prevention</u>	In-Class Activities: <ol style="list-style-type: none">1. Have students brainstorm and discuss ways to prevent boat theft including placing their name and contact information on the boat and filing the boat's Hull Identification Number (HIN) in a safe location for reference.
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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. 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. Hand held VHF radios should be considered by operators of human-propelled craft especially when operating in remote or coastal conditions.

<u>Communication Procedures</u>	In-Class Activities: <ol style="list-style-type: none">1. Print out a list of VHF radio channels and the protocol for using the radios on a small business-size card for students to keep as a reference while on board.2. Have students practice making simulated VHF radio calls including Mayday calls with one another.3. Provide a recording of actual radio traffic between recreational boaters and between boaters and the U.S. Coast Guard.4. Discuss the importance of EPIRBs in open water situations.5. Discuss Personal Locator Beacons and how these can be used in the marine environment.
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On-Water Instruction and Education

There are many different ingredients associated with helping individuals learn how to engage in safe and enjoyable recreational boat operation. In recent years, experiential learning has become increasingly recognized as a highly effective approach to teaching recreational boating operation.

Accordingly, acquiring boat operator skills through "learning by doing" augmented with knowledge acquisition on-land, is the long-term goal to be achieved through the development of a set of national standards for on-water, skills-based instruction in recreational boat operation.

Skills-Based Standards for Recreational Boat Operators

The National On-Water Standards (NOWS) initiative, under funding from the Sport Fish Restoration and Boating Trust Fund administered by the U.S. Coast Guard, produced American National Standards defining entry-level skills for recreational boat operation for power, sail, and human-propelled domains. These standards identify the outcome skills recreational boat operators should be able to demonstrate as a result of engaging in on-water, skill-based instruction in recreational boat operation.

A copy of the EDU-2 Skill-Based Human-Propelled Standard (American National Standard) and the separate Technical Support Document supporting this standard are available for free download at <https://www.usnows.org/human-propelled-craft-instruction>.

Chapter 5 – Additional Resources

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.

NASBLA is a 501(c)(3) non-profit organization. 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.

NASBLA has a wide-range of Associate members consisting of national non-profit organizations, Federal partners, industry, and course providers.

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

Conformity Assessment (a.k.a. Course Approval)

NASBLA reviews boating courses to determine if a course meets an indicated National Boating Education Standard. Course providers seeking NASBLA review and certification of a course must first complete and submit the application package. Complete information is posted at <https://www.nasbla.org/education/nasbla-course-approval>.

Research

The number of research projects address the topic of the efficacy of boater education. Research was conducted by NASBLA with financial support from the Sport Fish Restoration and Boating Trust Fund administered by the U.S. Coast Guard. Grant projects are listed at <https://www.nasbla.org/education/education-research>.

Data

A wide range of boating accident data, state law enforcement and education data, and Recreational Boating Safety Fiscal data is available via interactive Dashboards at this link <https://www.nasbla.org/idashboard>. The Recreational Boating Safety Dashboards were made possible through a grant from the Sport Fish Restoration and Boating Trust Fund administered by the U. S. Coast Guard.

Definitions

The following terms and definitions are presented to help clarify information presented in this Technical Report. The original source or the authoritative reference for each term is identified as follows:

- ANSI = American National Standards Institute
- ESP = National Boating Education Standards Panel
- Federal = A term commonly used by the U.S. Government
- NASBLA = National Association of State Boating Law Administrators
- Nav Rules = USCG Handbook of Navigation Rules and Regulations
- NBSAC = National Boating Safety Advisory Council
- NOWS = National On-Water Skills Standards

TERM	Source	Definition
<i>Advanced Education</i>	<i>NBSAC NASBLA</i>	Any course of instruction that goes beyond a basic boating safety course that is NASBLA approved.
<i>ANSI</i>	<i>ANSI</i>	American Nation Standards Institute
<i>ANSI Essential Requirements</i>	<i>ANSI ESP</i>	The minimum acceptable due process requirements applying to activities associated with developing consensus for the purposes of approving, revising, reaffirming, and withdrawing standards sanctioned as American National Standards. In abbreviated form, the requirements are: Openness; Lack of Dominance; Balance; Coordination and harmonization; Notification of standards development; Consideration of views and objections; Consensus vote; Appeals (procedural); Written procedures; and Compliance.
<i>Approved Scope of Activity</i>	<i>ANSI NASBLA</i>	“NASBLA’s standards development scope of activity covers knowledge and competencies for the recreational boater and boating professionals working within or on behalf of the recreational boating community in North America.”
<i>conformity assessment</i>	<i>ANSI</i>	Methods of evaluating whether products, processes, systems, services and personnel comply with a standard.
<i>consensus</i>	<i>ANSI</i>	General agreement, but not necessarily unanimity, and includes a process for attempting to resolve objections by interested parties, as long as all comments have been fairly considered, each objector is advised of the disposition of his or her objection(s) and the reasons why, and the consensus body members are given an opportunity to change their votes after reviewing the comments.

TERM	Source	Definition
<i>consensus</i>	<i>ESP</i>	Means that substantial agreement has been reached by directly and materially affected interests. Consensus requires that all views and objections be considered, and that an effort be made toward their resolution.
<i>consensus body</i>	<i>ANSI ESP</i>	The group that approves the content of a Standard and whose vote demonstrates evidence of consensus.
<i>course</i>	<i>NASBLA</i>	1) Refers to all components of “a boating education course, including instruction, texts, supplemental materials, and tests. A boating course may be presented in various formats, including classroom instruction, home study, video, distance learning, CD-ROM, or any combination of these formats.” 2) A NASBLA -approved boating safety education course, including all documents and materials submitted as part of an application for NASBLA approval of said Course.
<i>course</i>	<i>NOWS</i>	A series of specific learning experiences such as lectures or training sessions focused on a specific topic. It is designed to accomplish the acquisition of a defined level of knowledge and skills association with the specific topic; a framework of specific goals and objectives for learning experiences individual will engage in to transfer knowledge and skills.
<i>Course Provider</i>	<i>NASBLA</i>	A party, including a state, seeking application to NASBLA for approval of a boating safety Course and, after approval, providing that Course in compliance with the education standards.
<i>curriculum</i>	<i>NOWS</i>	A high level plan or overarching framework for all the experiences individuals will engage in as part of a their education; identifies what is to be learned and takes into account the needs of the individual learner, the domain of knowledge and skill and the needs of the society overall. The core ingredients of a curriculum include: the overall needs to be addressed through education; the specific goals and objectives to be pursued; and a method of evaluating its impact.
<i>ESP</i>	<i>NASBLA</i>	Means the National Boating Education Standards Panel. See “Consensus body.”
<i>Executive Board</i>	<i>ESP</i>	The Executive Board of the National Association of State Boating Law Administrators.
<i>experiential learning</i>	<i>NOWS</i>	An instructional method based on the belief that people learn best by doing; learning new knowledge and skills takes place through active, hands-on experiences. The best approaches to experiential learning involve both focus on knowledge and understanding and activity with a focus on skills and behavior.
<i>government unique standards</i>	<i>Federal</i>	Government developed standards for its own uses when, for security or uniqueness of application, no other standard is acceptable (Ex. Military, Fed Specifications, individual agency standards).

TERM	Source	Definition
<i>in good standing</i>	ESP	For a duly appointed Standards Panel member, means remaining in compliance with the Panel's attendance, balloting, conduct, and performance requirements. See Part V.2. of the Panel Rules.
<i>Incorporation by Reference</i>	Federal	1) A process which allows Federal agencies to comply with the requirement to publish rules in the Federal Register and the Code of Federal Regulations (CFR) by referring to materials already published elsewhere; 2) The legal effect of incorporation by reference is that the material is treated as if it were published in the Federal Register and CFR. This material, like any other properly issued rule, has the force and effect of law.
<i>instructional design</i>	NOWS	A specific plan on how learning will be transferred. It identifies the specific approaches, sequence of activities or events, the required resources and time frames that will be used to enable the learning of new knowledge, skills and behaviors. It includes identification of instructional delivery strategies to be employed such as lecture, cooperative learning, experiential learning, as well as the structure in which instruction will take place such as individually, one-to-one, in small or large groups.
<i>in-writing</i>	ANSI	Communication sent by either mail or electronic mail (email).
<i>knowledge</i>	ESP	Cognitive outcome of the learning process. Usually tested by verbal or written questions.
<i>lesson</i>	NOWS	A specific occasion when students meet with their teacher to learn a particular topic. Students engage in multiple lessons when the topic of a course is too large to be learned in one meeting.
<i>meeting</i>	ESP	Means any gathering of members in person or electronically (through webinar or teleconference or other electronic communication methods open and accessible to all members) to conduct official business.
NASBLA	ESP	Means the National Association of State Boating Law Administrators.
<i>National Technology Transfer and Advancement Act (NTTAA)</i>	ANSI Federal	1) Directs Federal Agencies to use consensus standards developed by consensus standards bodies; 2)Encourages participation in voluntary consensus standards bodies when compatible with missions, authorities, etc.; 3)Directs NIST to coordinate Federal standards and conformity assessment activities with those of the private sector
NIST	Federal	An abbreviation for the National Institute of Standards and Technology
<i>non-consensus standard</i>	Federal	"Industry standards," "company standards," or "de-facto standards" are standards developed in the private sector but not in the full consensus process.
NTTAA	Federal	An abbreviation for the National Technology Transfer and Advancement Act of 1995

TERM	Source	Definition
<i>on-water education</i>	NBSAC NASBLA	Any course of instruction that is boat based for skills development, regardless of the level of the course content
<i>Panel</i>	ESP	Means the National Boating Education Standards Panel. See “Consensus body.”
<i>performance standard</i>	ANSI	states requirements in terms of required results with criteria for verifying compliance but without stating the methods for achieving required results
<i>prescriptive standard</i>	ANSI	may specify design requirements, such as materials to be used, how a requirement is to be achieved, or how an item is to be fabricated or constructed
<i>power-driven vessel</i>	Nav Rules	Any vessel propelled by machinery.
<i>resolved</i>	ANSI	A negative vote cast by a member of the consensus body or a comment submitted as a result of public review where the negative voter agrees to change his/her vote or the negative commenter accepts the proposed resolution of his/her comment.
<i>restricted visibility</i>	Nav Rules	Any condition in which visibility is restricted by fog, mist, falling snow, heavy rainstorms, sandstorms, or any other similar causes.
<i>sailing vessel</i>	Nav Rules	Any vessel under sail provided that propelling machinery, if fitted, is not used.
<i>skills</i>	ESP	An outcome of the learning process, most often a psychomotor ability. Usually tested by demonstration. Skill testing may often be accomplished either within or outside the classroom.
<i>small boat</i>	ESP	In reference to the standards, a 'small boat' includes all boats less than 26 feet in length.
<i>Standard</i>	ANSI	1) a recognized unit of comparison by which the correctness of others can be determined; 2) a set of characteristics or qualities that describes features of a product, process, or service.
<i>standard</i>	NOWS	A definition of the qualities or characteristics used to judge desired level of acceptability.
<i>Standard</i>	ESP	(Upper case) means the NASBLA National Boating Education Standards or the Paddlesports Education Standards or any other national boating education standards that the Executive Board authorizes the Standards Panel to address.
<i>standards development</i>	ESP	The overall process and procedures associated with reviewing, revising, reaffirming, withdrawing, and approving standards.

TERM	Source	Definition
<i>Standards Panel</i>	<i>ESP</i>	Means the National Boating Education Standards Panel. See “Consensus body.”
<i>standardization</i>	<i>ANSI</i>	A broad range of activities and ideas – from the actual development of a standard to its promulgation, acceptance and implementation.
<i>state</i>	<i>NASBLA</i>	For the purposes of NASBLA course approval, means a state, commonwealth, federal district, or territory of the United States or, if outside the United States, another regulating jurisdiction.
<i>substantive change</i>	<i>ANSI</i>	Substantive Change: A substantive change in a proposed American National Standard is one that directly and materially affects the use of the standard. Examples of substantive changes are: "shall" to "should" or "should" to "shall"; addition, deletion or revision of requirements, regardless of the number of changes; addition of mandatory compliance with referenced standards.
<i>syllabus</i>	<i>NOWS</i>	Identifies the specific topics that will be examined, or the experiences that will be provided, during a particular course.
<i>teaching</i>	<i>NOWS</i>	To show or explain how to do something where the focus is to develop or transfer knowledge and understanding.
<i>Technical Report</i>	<i>ANSI</i> <i>ESP</i>	A document registered with ANSI which informs a user on technical considerations for use of a Standard.
<i>template</i>	<i>NOWS</i>	The specific form, structure, or framework used to prescribe how something is configured, organized or designed.
<i>training</i>	<i>NOWS</i>	Learning experiences where the priority focus is to develop or transfer skills and behaviors through instruction and practice.
<i>TSD</i>	<i>NOWS</i>	Technical Support Document
<i>unresolved</i>	<i>ANSI</i>	Either (a) a negative vote submitted by a consensus body member or (b) written comments, submitted by a person during public review expressing disagreement with some or all of the proposed standard, that have not been satisfied and/or withdrawn after having been addressed according to the developer's approved procedures.
<i>underway</i>	<i>Nav Rules</i>	A vessel is not at anchor, or made fast to the shore, or aground.
<i>vessel</i>	<i>Nav Rules</i>	Includes every description of water craft, including non-displacement craft and seaplanes, used or capable of being used as a means of transportation on water.

TERM	Source	Definition
<i>voluntary consensus body</i>	ANSI	A body of balanced interest group representatives which plan, develop, establish, or coordinate voluntary consensus standards using agreed-upon procedures as defined by ANSI Essential Requirements.
<i>voluntary consensus standards</i>	ANSI	standards developed or adopted by voluntary consensus standards bodies

AUTHORIZED VESSEL TYPES and OPTIONAL VESSEL SUB-TYPES

This section presents the vessel types/sub-types work product voted on and approved by the NASBLA membership in a process authorized under NASBLA's Bylaw III, Section 8. The **12 Authorized Vessel Types** have been set in regulation as per the U.S. Coast Guard's Final Rule on Changes to Standard Numbering System, Vessel Identification System, and Boating Accident Report Database, 33 C.F.R. Parts 173, 174, 181, 187, issued March 28, 2012, with implementation by the states no later than January 2017. The **Vessel Sub-Types** are for **optional use**. Following the vessel types is a list of terms and definitions for all entries. The **History, Voting Process, and Overview of Process** presented below provides additional background information.

History: Vessel sub-types entries were vetted through a multi-stage review process involving the project team (subgroup of NASBLA Engineering, Reporting & Analysis Committee (ERAC), including additional U.S. Coast Guard subject matter experts); the full ERAC; the NASBLA Executive Board; and the broader NASBLA community via two open comment solicitations – the first, Feb. 22-March 24, 2013, and the second, July 11-26, 2013 (following the release of a revised version of the list on July 11). Comments also were received from NASBLA membership during a Feb. 28, 2013 session conducted as part of the NASBLA Spring BLA Workshop and a July 15, 2013 national teleconference/webinar.

Voting process: Voting was authorized under NASBLA Bylaw III, Section 8 (Conducting Interim Business). A Request for Vote was initiated in an Aug. 2, 2013 email to all Boating Law Administrators. By the Sept. 3 deadline, 44 NASBLA member States had cast ballots, with 43 in the affirmative.

Overview of Process: The review process for this Accident Reporting Terms and Definitions Project was accepted by the NASBLA Executive Board and the USCG Office of Auxiliary and Boating Safety in mid-June 2011.

On September 11, 2012, NASBLA membership approved Resolution 2012-3 (In support of the Accident Reporting Terms and Definitions Project, the adoption of standardized terms and definitions by the U.S. Coast Guard, and actions to facilitate their application), and under its provisions, the first two work products in the series – Accident Types/Events and Accident Contributing Factors/Causes.

On September 3, 2013, NASBLA membership approved the final three work products in the series – Operation, Activity, and Vessel Sub-Types (for optional use with authorized Vessel Types).

AUTHORIZED VESSEL TYPES AND OPTIONAL VESSEL SUB-TYPES

VESSEL TYPES terms authorized in 33 CFR 173.57 (eff. 1/17)	VESSEL SUB-TYPES for optional use with the authorized Vessel Types, to expand the selections
Open Motorboat	Bass Boat
	Center Console
	Runabout
	Runabout-Bow Rider
	Runabout-Low Profile
	Ski Boat
	Wakeboard Boat
	Deck Boat
	Jon/Utility Boat
	Offshore Performance Boat (Open Style)
	Rigid Hull Inflatable Boat
	Open Motorboat (unspecified)
Cabin Motorboat	Cabin Cruiser
	Cuddy Cabin Cruiser
	Offshore Performance Boat (Cuddy Cabin Style)
	Cabin Motorboat (unspecified)
Paddlecraft	Canoe – Unspecified
	Canoe – Whitewater version
	Canoe – Decked version
Paddlecraft	Kayak – Unspecified
	Kayak – Whitewater version
	Kayak – Recreational version
	Kayak – Touring version
	Kayak – Sit-on-top version
	Paddleboard
	Paddlecraft (unspecified)
Personal Watercraft	
Pontoon Boat	
Sail Only	Sailboat
	Kiteboard
	Sailboard
	Sail Only (unspecified)
Auxiliary Sail	
Airboat	
Houseboat	
Inflatable Boat	Whitewater Raft
	Inflatable Boat (unspecified)
Rowboat	Drift Boat
	Rowing Shell
	Rowboat (unspecified)
Other	Other (Describe)
	Possible sub-types to code as Other
	Amphibious Vehicle
	Hovercraft
	Pedal Boat

In this list, the main Vessel Types entries authorized and defined in regulation as a result of the issuance of the Final Rule on Changes to Standard Numbering System, Vessel Identification System, and Boating Accident Report Database are **identified by yellow highlighted** term labels. The optional use Vessel Sub-Types entries—and in the case of Paddlecraft Sub-Types, “versions” of two of the sub-types—are identified by underlined term labels.

The term labels and definitions for the authorized Types—Open Motorboat, Cabin Motorboat, Paddlecraft, Personal Watercraft, Pontoon Boat, Sail Only, Auxiliary Sail, Airboat, Houseboat, Inflatable Boat, and Rowboat—are as defined in regulation. However, clarifying information—not intended to be part of the official definitions—has been appended to Personal Watercraft, Pontoon Boat and Inflatable Boat. Also, a definition is presented for “Other,” a Vessel Type term label that was authorized, but not defined in Code of Federal Regulations.

OPEN MOTORBOAT

OPEN MOTORBOAT: *A vessel equipped with propulsion machinery and having an open load carrying area that does not have a continuous deck to protect it from the entry of water.*

Bass Boat: *Generally, an outboard powered vessel designed for inland bass fishing or inshore fishing; usually distinguished by a small, two or three occupant cockpit with decking covering most of the rest of the vessel; the decking typically has built-in sockets for the insertion of pedestal fishing seats for use only when the vessel is still or moving slowly; usually propelled additionally by a bow-mounted electric trolling motor.*

Center Console: *A single-decked open hull vessel where the console is in the center of the vessel. The deck surrounds the console so that a person can walk all around the vessel from stern to bow with ease.*

Runabout: *A vessel with a deck covering the bow, with an offset helm, conventional seating and windshield, and typically between 17 and 30 feet in length.*

Runabout-Bow Rider: *A vessel with an open bow area and seats in front of an offset helm station, with conventional seating and windshield, and typically between 17 and 30 feet in length.*

Runabout-Low Profile: *A closed bow vessel, with low freeboard/transom, shallow V configuration, powered by a large engine, and typically between 17 and 30 feet in length.*

Ski Boat: *A vessel with a shallow draft V bottom hull; typically inboard powered; designed primarily for towed watersports.*

Wakeboard Boat: *A vessel with a shallow draft V bottom hull; typically inboard powered; designed primarily for wakeboarding; typically has a wakeboard tower and some type of adjustable variable onboard ballast system or adjustable transom tab in order to create larger wakes.*

Deck Boat: *A vessel with large open spaces in the interior and plenty of seating, typically with a deep-V or tri-hull construction. If closed cylinder buoyancy, see **PONTOON BOAT**.*

Jon/Utility Boat: *An open, lightweight vessel, usually constructed of aluminum and usually with bench seats.*

Offshore Performance Powerboat (Open Style): *A high performance vessel of open fiberglass construction with a deep V or catamaran offshore racing hull; usually 30 to 50 feet long; relatively narrow in beam and generally equipped with two or more powerful engines.*

Rigid Hull Inflatable Boat (RIB/RHIB): *A relatively light-weight vessel constructed with a solid, shaped hull and flexible or foam-filled tubes around much of the vessel's perimeter.*

Open Motorboat (unspecified): *Vessel does not fit any of the Open Motorboat Sub-Type descriptions.*

CABIN MOTORBOAT

CABIN MOTORBOAT: *A vessel propelled by propulsion machinery and providing enclosed spaces inside its structure.*

Cabin Cruiser: *A vessel with a cabin that can be completely closed by means of doors or hatches.*

Cuddy Cabin Cruiser: *A vessel with a small cabin, galley, head, and berth; typically, the cuddy is not tall enough to stand in.*

Offshore Performance Powerboat (Cuddy Cabin Style): *A high performance cabin vessel of fiberglass construction with a deep V or catamaran offshore racing hull; usually 30 to 50 feet long; relatively narrow in beam and generally equipped with two or more powerful engines.*

Cabin Motorboat (unspecified): *Vessel does not fit any of the Cabin Motorboat Sub-Type descriptions.*

PADDLECRAFT

PADDLECRAFT: *A vessel powered only by its occupants, using a single- or double-bladed paddle as a lever without the aid of a fulcrum provided by oarlocks, thole pins, crutches, or similar arrangements.*

Canoe-Unspecified: *A vessel typically pointed upwards at both ends and open on top; propelled by single-bladed paddles.*

Canoe-Whitewater version: *A vessel designed for whitewater; propelled by single-bladed paddles; generally has more bow and stern curvature (rocker) and supplemental flotation, in the form of bow, stern or center air bags, than its flatwater counterpart; may be outfitted for tandem, solo or both.*

Canoe-Decked version: *A vessel propelled by single-bladed paddles; has a spray-skirt to enclose the open portion of the canoe; the paddler kneels in it and uses a canoe paddle.*

Kayak-Unspecified: *A vessel propelled by double-bladed paddles, by one or more seated individuals facing the direction of travel.*

Kayak-Whitewater version: *A vessel designed for whitewater; propelled by double-bladed paddles; generally has more bow and stern curvature (rocker), which aids in maneuverability; generally uses a spray-skirt; generally, a shorter kayak, but may be as long as 12 feet.*

Kayak-Recreational version: *A vessel propelled by double-bladed paddles; typically has a large cockpit with or without a provision for sealing the opening to the body of the occupant (i.e., spray-skirt); typically less than 12 feet in length, with wider beam and larger cockpit than a touring version kayak.*

Kayak-Touring version: *A vessel propelled by double-bladed paddles; typically has built-in storage capacity for gear and provision for sealing the cockpit opening to the body of the occupant with a water-tight spray-skirt; normally longer and more slender in construction than a recreational version kayak. (Includes sea kayaks)*

Kayak-Sit-on-top version: *A vessel that one sits on top of, not inside of; propelled by double-bladed paddles; has a sealed, watertight deck surface into which seats and features might be molded; does not have an opening that can be sealed around the occupant, but may have thigh straps.*

Paddleboard: *A vessel, similar in appearance to a surfboard, but may vary significantly in length; intended to be propelled with a single- or double-bladed paddle.*

Paddlecraft (unspecified): *Vessel does not fit any of the Paddlecraft Sub-Type descriptions.*

PERSONAL WATERCRAFT

PERSONAL WATERCRAFT: *A vessel propelled by a water-jet pump or other machinery as its primary source of motive power and designed to be operated by a person sitting, standing, or kneeling on the vessel, rather than sitting or standing within the vessel's hull. [Includes tethered water thrust equipment.][§]*

PONTOON BOAT

PONTOON BOAT: *A vessel with a broad, flat deck that is affixed on top of closed cylinders which are used for buoyancy, the basic design of which is usually implemented with two rows of floats as a catamaran or with three rows of floats as a trimaran. [If typical deep-V or tri-hull construction, see **OPEN MOTORBOAT - Deck Boat.**]^{**}*

[§] Bracketed information is intended only for clarification of application and is not part of official definition.

^{**} Bracketed information is intended only for clarification of application and is not part of official definition. Definition for **Deck Boat** (proposed **OPEN MOTORBOAT** sub-type) directs users to **PONTOON BOAT** in the event of closed cylinder buoyancy. The distinction and appropriate application is also to be addressed in training.

SAIL ONLY

SAIL ONLY: *A vessel propelled only by sails.*

Sailboat: *A vessel with sail as its only method of propulsion.*

Kiteboard: *A vessel, similar in appearance to a surfboard, with or without foot-straps or bindings, combined with a large controllable kite to propel the rider and board across the water.*

Sailboard: *A vessel, similar in appearance to a surfboard, equipped with a swivel mounted mast and sail not secured to a hull by guys or stays.*

Sail Only (unspecified): *Vessel does not fit any of the Sail Only Sub-Type descriptions.*

AUXILIARY SAIL

AUXILIARY SAIL: *A vessel with sail as its primary method of propulsion and mechanical propulsion as its secondary method.*

AIRBOAT

AIRBOAT: *A vessel that is typically flat-bottomed and propelled by an aircraft-type propeller powered by an engine.*

HOUSEBOAT

HOUSEBOAT: *A motorized vessel that is usually non-planing and designed primarily for multi-purpose accommodation spaces with low freeboard and little or no foredeck or cockpit.*

INFLATABLE BOAT

INFLATABLE BOAT: *A vessel that uses air-filled flexible fabric for buoyancy. [If equipped with mechanical propulsion, see **OPEN MOTORBOAT.**]^{††}*

Whitewater Raft: *A vessel designed for use on whitewater, consisting of very durable, multi-layered rubberized (hypalon) or vinyl fabrics (PVC) with independent air chambers; may be steered with paddles at the stern or with central helm oars.*

Inflatable Boat (unspecified): *Vessel does not fit the Whitewater Raft Sub-Type descriptions.*

ROWBOAT

ROWBOAT: *An open vessel manually propelled by oars.*

Drift Boat: *A vessel with a wide, flat bottom for low draft; flared sides; a narrow, flat bow, often mistaken for the transom; and a pointed stern; specialized to run rapids on rivers.*

Rowing Shell: *A light, long, narrow racing vessel for rowing by one or more persons.*

Rowboat (unspecified): *Vessel does not fit any of the Rowboat Sub-Type descriptions.*

OTHER

OTHER (Describe): *If the vessel does not fit any of the descriptions above, enter another term for the vessel that best describes it.*^{††}

Proposed SUB-TYPES that would appropriately fit under “OTHER”

Amphibious Vehicle: *A motorized, wheeled vehicle that can be operated as a vessel.*

Hovercraft: *A vessel capable of moving over water or land on a cushion of air created by downward directed fans powered by engine(s).*

Pedal Boat: *A vessel mechanically propelled by paddles, worked by one or more operators’ feet and legs.*

^{††} Bracketed information is intended only for clarification of application and is not part of official definition. **INFLATABLE BOAT**, unlike the other main, authorized Vessel Types, focuses on hull type instead of propulsion. Given how vessels are currently coded in BARD, users are directed to look to the propulsion type as a primary consideration before resorting to use of this entry.

^{‡‡} **OTHER** is an authorized Vessel Type, but was not defined in the Final Rule. This is the recommended definition.

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Appendix - American National Standard

ANSI/NASBLA 101-2017: Basic Boating Knowledge – Human Propelled



This National Boating Education Standard, as overseen by the National Boating Education Standards Panel (ESP), is the product of voluntary consensus of representatives of federal and state government, industry, non-profit organizations, and public sectors. It is intended as a guide to aid the boating community in the design and implementation of boating courses and boater education.

ESP will review this standard at least every five years, at which time it may be reaffirmed, revised, or withdrawn. ESP welcomes written comments on the Standard during open public comment periods via <http://esp.nasbla.org/esp/>. Requests for interpretation may be submitted at any time via esp@nasbla.org.

American National Standard

ANSI/NASBLA 101-2017: Basic Boating Knowledge – Human Propelled



American National Standard (ANS)

Approval of an American National Standard requires review by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer. Consensus is established when, in the judgement of the ANSI Board of Standards Review (BSR), substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made towards their resolution. The use of American National Standards is completely voluntary; their existence does not in any respect preclude anyone, whether they have approved the standards or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standards. The American National Standards Institute does not develop standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute. Requests for interpretations should be addressed to the secretariat or sponsor whose name appears on the title page of this standard.

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This list represents the membership at the time the standard was complete in June 2017.

NOTE: Membership on a panel or committee shall not in and of itself constitute an endorsement of the National Association of State Boating Law Administrators (NASBLA) or any document developed by the panel or committee on which the member serves.

This standard was developed under procedures of essential requirements for American National Standards Institute. The Panel that approved the standard was balanced based on interest categories to ensure that individuals representing those with material interests in the standard had an opportunity to participate.

This standard, which is the result of extended and careful consideration of available knowledge and experience on the subject, is intended to provide minimum performance requirements.

National Boating Education Standards Panel meetings are open to the public. All contact regarding standards activity, interpretations, or meeting attendance should be directed to NASBLA ESP Staff at esp@nasbla.org.

REQUEST FOR INTERPRETATIONS

Upon written request, the Education Standards Panel will render an interpretation of any requirement of the standard. The request for interpretation should be clear and unambiguous. Requests should be presented to the ESP in a manner in which they may be answered in a 'yes' or 'no' fashion.

The Panel reserves the right to reconsider any interpretation when or if additional information which might affect it becomes available to the ESP. Persons aggrieved by an interpretation may appeal to the Panel for reinterpretation.

REQUEST FOR APPEALS

Any directly and materially affected interest who believe they have been or will be adversely affected by a Standard, or by the lack thereof, shall have the right to appeal substantive or procedural actions or inactions of the National Boating Education Standards Panel per Part XII of the [Panel Rules](#) (latest version) posted at www.nasbla.org under *Education>Education Standards Panel*. As stated in the Rules, prior to the filing of a formal appeal, communication of the alleged actions or inactions, with mutual effort to informally resolve the dissatisfaction, shall be attempted and documented.

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Basic Boating Knowledge - Human-Propelled*

Scope

This is the minimum standard that applies to all human-propelled boating courses in the U.S. states and territories and District of Columbia.

Purpose

To establish the national standard for use by course providers to meet the needs of recreational boaters for human-propelled boating knowledge in order to identify and reduce primary risk factors and mitigate their effects on recreational boating.

* This standard applies to all human-propelled craft, such as canoes, kayaks, rafts, stand-up paddleboards (SUPs), dragon boats, etc., hereafter referred to as 'boats.'

1. The Boat

1.1. Boat Capacity

The course shall describe:

- how to determine acceptable loading capacity; and
- how and why to properly balance the load.

2. Boating Equipment

2.1. Personal Flotation Devices (Wearable Life Jackets and Throwable Devices) Types and Carriage

The course shall explain the:

- different classifications and types of U.S. Coast Guard approved personal flotation devices (PFDs), including inflatable life jackets, hybrids, and throwable devices;
- the number and types of PFDs/life jackets that must be carried aboard the boat according to applicable regulations; and
- label information, how to read and understand them.

2.2. Personal Flotation Device Availability and Sizing

The course shall communicate that PFDs/life jackets must be:

- readily accessible, and
- correctly sized for the persons using them.

2.3. Wearing Life Jackets

The course shall inform boat operators of the importance of:

- selecting the proper life jacket for the activity and everyone wearing life jackets at all times while aboard;
- showing passengers how to select the correct size of life jacket and properly put on and wear their life jackets;
- emphasizing the need to be aware that conditions can change quickly while boating (i.e., weather and water conditions, boat traffic, etc.); and
- stressing the need to always wear a life jacket while aboard due to the difficulty of putting a life jacket on in the water while under distress.

2.4. Personal Flotation Device Serviceability

2.4.1. The course shall describe:

- the characteristics of serviceable PFDs/life jackets, and
- when to replace PFDs/ life jackets due to excessive wear or damage.

2.4.2. The course will cover the importance of the maintenance of inflatable life jackets as per manufacturer recommendations.

2.5. Navigation Light Equipment

The course shall cover the applicable navigation lights and shapes requirements as set forth in the most recent version of the NAVIGATION RULES AND REGULATIONS HANDBOOK by the U.S. Coast Guard.

2.6. Sound Signaling Equipment

The course shall cover the applicable navigation sound signaling requirements as set forth in the most recent version of the NAVIGATION RULES AND REGULATIONS HANDBOOK by the U.S. Coast Guard, describing:

- sound-producing requirements; and
- the use of sound signals.

2.7. Visual Distress Signal Equipment

The course shall describe:

- when U.S. Coast Guard approved visual distress signals are required to be carried on board,
- the types of visual distress signals required on boats; and
- the use of visual distress signals when required on boats operating on
 - coastal waters, and

- adjoining rivers two (2) or more miles wide at the mouth and up to the first point the river narrows to less than two (2) miles as summarized in the most recent version of the NAVIGATION RULES AND REGULATIONS HANDBOOK by the U.S. Coast Guard.

2.8. Recommend Additional Safety Equipment

2.8.1. The course shall recommend boaters carry additional safety equipment appropriate for the circumstances, such as:

- helmet, whistle, river knife, rescue throw bag, rescue hardware (webbing, carabiners, z-drag kit), leash, first aid kit, signal mirror, flotation bags, and dry bags;
- dewatering equipment – pump, sponge or bucket; and
- a map or chart (if applicable) of the area.

2.8.2 Recommend carrying visual distress signals, communication devices and survival items ON YOUR PERSON so they are readily available (e.g. whistles, waterproof radios, waterproofed cell phones).

3. Trip Planning and Preparation

3.1. Checking Local Weather and Water Conditions

3.1.1. The course shall describe how to make informed boating decisions based on forecasted local weather and water conditions.

3.1.2. The course shall also describe:

- dangerous weather conditions such as strong winds, storms, lightning, hurricanes and fog;
- dangerous water conditions such as strong currents, waves, hydraulics and high water;
- dangerous areas and features in and around the water, such as rocky shores, man-made structures and debris, and trees or other items in the waters; and
- their importance in trip planning.

3.2. Checking Local Information

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

3.2.2. The course shall describe how to obtain information and inform the boater regarding local and state laws and regulations.

3.3. Filing a Float Plan

The course shall describe:

- the importance of filing a float plan and the basic information that should be included; and
- leaving the float plan with an appropriate responsible person.

3.4. Preventative Maintenance

The course shall describe and illustrate where possible:

- the need for regular inspection; and
- maintenance of the boat, gear and related equipment, including:
 - inspecting the boat for water tightness, including hull integrity, gaskets, and all hatch covers;
 - patching holes with a material suited to the composition of the hull;
 - cleaning the boat to remove all foreign bodies, mud and aquatic invasive species;
 - storing the boat in accordance with manufacturer recommendations;
 - checking, replacing as necessary, and tightening all screws and deck fittings;
 - treating the hull with an appropriate UV inhibitor as recommended by the manufacturer;
 - checking flotation air bags to be sure they are effectively secured and don't leak;
 - checking lines and grab handles for fraying;
 - checking paddles/oars; and
 - all other equipment to ensure it conforms to manufacturer performance guidelines and specifications.

3.5. Pre-Departure Checklist and Passenger Communication

The course shall describe:

- the importance of using a pre-departure checklist, and
- conducting a safety discussion with all in the party.

3.6. Transporting

The course shall describe proper procedures for transporting a boat to prevent accidents and property damage, including:

- making sure the boat is securely fastened to the car or racks, and
- using proper tie downs and knots.

4. Safe Boat Operation

4.1. Operator Responsibilities

4.1.1. The course shall describe:

- a boater's ultimate responsibility for his or her personal safety;
- the safety of anyone else on board and all activity aboard the boat; and
- how to evaluate currents and determine which should be avoided by the novice paddler/rower.

4.1.2. This responsibility extends to other water users and includes but is not limited to:

- refraining from careless, reckless, or negligent operations on the water;
- abiding by other general boater courtesy;
- crossing a channel as a group;
- understanding the impact of waves and wakes on boat handling; and
- sharing water features such as eddies and rapids with other paddlers.

4.2. Influence of Drugs and Alcohol on Boat Operation

The course shall describe:

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

4.3. Navigation Rules

4.3.1. The course shall utilize the content of the U.S. Coast Guard Navigation Rules and Regulations Handbook (most current version) to describe:

- generally avoiding channels used by larger boats and, if navigating in a channel, giving way to vessels constrained by the channel;
- avoiding collision with powerboats by keeping a sharp lookout, using light and sound signals to identify your presence, and maneuvering out of the way;
- observing and operating in accordance with homeland security measures by keeping a safe distance from military and commercial ships at sea and in port and observing all restrictions in security zones;
- observing restricted areas near dams, power plants and bridges; and
- the duty to render necessary assistance.

4.3.2. The course shall include, verbatim, the following 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, and operation in relation to commercial vessels and other watercraft are set forth in the NAVIGATION RULES AND REGULATIONS HANDBOOK by

the U.S. Coast Guard (latest edition). For State-specific navigation requirements, refer to the rules and laws that apply in the state where you intend to boat.”

4.4. Aids to Navigation

The course shall describe:

- the U.S. Aids to Navigation (USATONS) as they are relevant to boaters, including:
 - understanding channel markers;
 - understanding regulatory markers, such as those marking dams, submerged objects and other hazards; and
 - homeland security restrictions.

4.5. Boarding, Propelling, Exiting and Securing the Boat

4.5.1. The course shall describe:

- how to safely board and exit a small boat;
- sufficient clearance or proper fit so that entry into and exit from the boat is not impeded; and
- basic ergonomics of rowing or paddling (e.g. proper body and arm position to reduce the possibility of injury and to maintain balance in/on the boat).

4.5.2. The course shall explain how to secure the boat at the shore to prevent it from drifting away.

5. Emergency Preparedness

5.1. Assisting Other Boaters

The course shall describe procedures and tools for assisting other boaters in difficulty, while minimizing risk to the rescuing boater.

5.2. Capsizing/Falls Overboard

5.2.1. The course shall describe how to prevent and respond to emergencies. The prevention recommendations will include at least the following:

- stay centered and low,
- avoid standing and sudden moves,
- maintain three points of contact,
- never overload,
- avoid rough water, and
- additional techniques specific to individual craft (e.g. falling from a Stand Up Paddleboard).

5.2.2. The responding procedures shall include at least the following:

- wearing life jackets,
- taking a head count,
- staying with the boat when appropriate,
- signaling for assistance,
- using improvised floating aids,
- initiation of procedures to recover people in the water, and
- proper procedures to use when boating.

5.3. Cold Water Immersion

The course shall describe the effects of cold water immersion and how to prepare for, prevent, and respond to a cold water immersion event, including:

- Stages and the physiological effects of cold water immersion:
 - Initial reaction (cold shock response; gasping and hyperventilation);
 - Short-term response (cold incapacitation; swim failure, functional loss); and
 - Long-term response (immersion hypothermia).
- Preparation and Prevention:
 - Wearing a life jacket enhances chances of survival during each stage;
 - Carrying communication and signaling devices on person;
 - Preventing capsizes, swamping and falls overboard; and
 - Proper clothing to enhance survival following cold water immersion.
- Response:
 - Initial reaction (first 1-5 minutes) - airway protection and breath control;
 - Short-term (first 30 minutes) – performing the most important functions first (emergency communication, situational assessment, decision making, and self-rescue activities); and
 - Long-term (after 30 minutes or more) – slow body core heat loss and be prepared at all times to signal rescuers.

5.4. Boating Accident Reports

5.4.1. The course shall describe:

- what kinds of boating accidents require an accident report,
- how, when and where to file the report, and
- reporting accidental loss of boats to reduce likelihood of unneeded search efforts.

5.4.2. The course shall include a sample accident report form, which can be included in the textbook, as a separate handout, or as an online link.

6. Other Water Activities

6.1. Hunting and Fishing

- 6.1.1. The course shall inform people who hunt and fish from boats that they are boaters, and that they need to follow safe boating practices.
- 6.1.2. Information must be provided about accident risks relevant to this group of boaters.



This Technical Report was produced by the National Association of State Boating Law Administrators through work of the National Boating Education Standards Panel.

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