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ESP will review this standard at least every five years, at which time it may be reaffirmed, revised, or withdrawn.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](mailto:esp@nasbla.org).

# American National Standard

## ANSI/NASBLA 102-2022: Basic Boating Knowledge – Plus Sailing



# American National Standard (ANS)

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Published by  
**National Association of State Boating Law Administrators**  
**1020 Monarch Street, Suite 200, Lexington, KY 40513**

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The list above represents the membership at the time the draft standard was presented for consensus ballot in 2019.

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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 the 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](mailto: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](http://www.nasbla.org) under Advocacy > National Education Standards. 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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## FOREWORD

This standard defines general, entry-level knowledge a boater should possess for safe recreational boat operation. This consensus-based standard is designed to support course providers and raise the overall level of quality, availability, and consistency of instruction in entry-level recreational boater knowledge. This standard functions within a national system of standards for recreational boat operation.

It is recommended this standard be used in conjunction with any accompanying Technical Report.

The standard is organized as follows:

- The numerical identifiers assigned to each element are for ease of reference only, and they do not imply any sequential process of learning or that the information only applies to that particular section.
- Individual numbered elements are organized for ease of reference. Each individual numbered element can be applied within other elements during design and delivery of instruction.
- All items listed after the word “including” are requirements of the standard. Additional items may be added.

## REFERENCES

The following is a listing of all American National Standards for Basic Boating Knowledge. Additional listed references provide content to supplement this standard for specific boat types. Unless otherwise noted the latest version of referenced standards shall apply. NOTE: Per ANSI Essential Requirements, identification of products or services is not an endorsement of those products or services or their suppliers.

*Source:* NASBLA - National Association of State Boating Law Administrators, 1020 Monarch, Suite 200, Lexington, KY 40513. Phone: (859) 225-9487. Standards and ANSI-Registered Technical Reports are available at [www.nasbla.org](http://www.nasbla.org).

- 100-2022, Basic Boating Knowledge – Core
- 101-2022, Basic Boating Knowledge – Plus Human-Propelled
- 102-2022, Basic Boating Knowledge – Plus Sailing
- 103-2022, Basic Boating Knowledge – Plus Power
- 103.1-2022, Supplement - Basic Boating Knowledge – Plus Water-Jet Propelled

The following American National Standards for on-water boating skills provide information to guide on-water skill training which can be used to supplement the knowledge standards.

*Source:* ABYC - American Boat & Yacht Council, Inc., 613 Third Street, Suite 10, Annapolis, MD 21403. Phone: (410) 990-4460. Website: [www.abycinc.org](http://www.abycinc.org).

- EDU-1, On-Water Recreational Boating Skills - Power
- EDU-2, Skill-Based Human-Propelled Standard
- EDU-3, Skills-Based Sailboat Standard
- EDU-4, On-Water Instruction Standard

Education providers are also encouraged to use the National On-Water Standards (NOWS) Technical Support Documents (TSDs) that accompany each standard to support the design and implementation of on-water entry-level instruction. These documents are available for free download at [www.usnows.org](http://www.usnows.org).

## DEFINITIONS

For the purpose of this document the following definitions apply:

**accident** (n) – 1) An unforeseen and unplanned event or circumstance. 2) In boating, a general term referring to a recreational boating event that results in an injury, fatality, property damage, and/or vessel that is a total loss. *(Note: The boating safety community, including Marine Law Enforcement Agencies, are transitioning away from “accident” and to the term “incident.”)*

**beginner** (n) – A novice who has begun a course of instruction or is learning the fundamentals.

**boat** (n) – A small vessel for travel on water; Includes every description of watercraft used or capable of being used as a means of transportation on water.

**boat** (v) – To place in or bring into a boat, to go by boat.

**entry-level** (adj) – Of or being at the lowest level of hierarchy. The proficiency reached by a person who has successfully completed an appropriate amount of beginner instruction, or has achieved a sufficient level of experience, to be ready to pursue (or “enter” safely into) recreational boating.

**human-propelled vessel** (n) – Any vessel propelled by human power, typically with oars or paddles.

**incident** (n) – An occurrence of an action or situation that is a separate unit of experience. Something dependent on or subordinate to something else of greater or principal importance. *Also see “Accident”.*

**knowledge** (n) – Cognitive outcome of the learning process usually tested by verbal or written questions.

**go-no-go** (adj) – Being or relating to a required decision to continue or stop a course of action. Being or relating to a point at which a go-no-go decision must be made.

**passenger** (n) – Any person onboard, excluding the operator.

**power-driven vessel** (n) – Any vessel propelled by machinery.

**sailing vessel** (n) – Any vessel under sail provided that propelling machinery, if fitted, is not used.

**standard** (n) – According to the American National Standards Institute, 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.

**skill** (n) – The learned capacity, aptitude, or ability to do something.

**underway** (adj)– occurring, performed, or used while traveling or in motion.

**underway** (adv) – In motion: not at anchor or aground. A vessel is not at anchor, or made fast to the shore, or aground.



**water-jet propelled vessel (n)** – Any vessel propelled by machinery which powers a pump producing a jet of water.

**vessel (n)** –Any watercraft, including nondisplacement craft and seaplanes, used or capable of being used as a means of transportation on water.

# American National Standard

## Basic Boating Knowledge – Plus Sailing

### Scope

This discipline-specific "Plus" standard, when combined with the "Basic Boating Knowledge – Core" standard, establishes minimum essential knowledge to reduce recreational sailing risk factors. The combined standards are to be used for development of basic boating education courses and student assessment for sailing vessels. This standard applies to basic knowledge for recreational sail boating in the U.S. states, territories, and the District of Columbia.

### 1.0 Terminology

1.1 - See "Basic Boating Knowledge - Core" (*latest version*)

#### 1.2 Discipline Specific

1.2.1 Identify and describe the functions of the parts of a typical small sailboat.

1.2.2 List and define directional terms relating to the sailboat.

1.2.3 List and define directional terms relating to the wind.

1.2.4 Describe visual and non-visual indicators that may be used to provide a sense of wind direction and strength.

### 2.0 Boat Types and Characteristics

2.1 through 2.4 - See "Basic Boating Knowledge - Core" (*latest version*)

#### 2.5 Discipline Specific

2.5.1 Describe proper methods for boarding while keeping the sailboat reasonably stable.

2.5.2 Describe the purpose and functions of rudder, as well as the relationship between boat speed and rudder control. Describe the purpose and functions of the tiller, tiller extension, and steering wheel(s). Discuss their advantages and disadvantages.

2.5.3 Describe the functions of, and differences between, a ballasted keel and a centerboard or dagger board.

2.5.4 Define the basic force generated as air flows over a sail when sailing upwind and describe how this force propels the sailboat forward. Describe how the sail works differently when sailing straight downwind.

2.5.5 Describe what adjustments to the sails and rudder must be made to accommodate changes in wind direction and wind speed.

2.5.6 Describe and identify the following points of sail and sailboat positions relative to the wind: close hauled, close reach, beam reach, broad reach, run/directly downwind, by the lee, no sail zone/in irons.

2.5.7 Describe the purpose and identify the following course and tack changing maneuvers and their results: heading up, bearing away, tacking, gybing (jibing).

2.5.8 Describe the causes and risks associated with an accidental gybe and ways in which it can be prevented.

2.5.9 Describe methods of accelerating, decelerating, and stopping a sailboat.

2.5.10 Describe methods for getting the sailboat out of irons and under control onto a desired tack.

2.5.11 Describe how to place the sailboat in the safety position or how to heave-to, and the circumstances under which these maneuvers could be used.

2.5.12 Describe commands and responses for maneuvers such as heading up, bearing away, tacking, gybing, departure from and return to a dock, mooring, or shoreline, etc.

### **3.0 Required Equipment**

3.1 through 3.3 - See ““Basic Boating Knowledge - Core” (*latest version*)

#### **3.4 Discipline Specific**

3.4.1 Describe required lights and sound signals for sail boats as set forth in the most recent version of the NAVIGATION RULES AND REGULATIONS HANDBOOK as published/maintained on the United States Coast Guard’s online Navigation Center including:

- common lighting configurations; and
- types of sound-producing devices required and use of such devices on sail boats.

## **4.0 Trip Planning and Preparation**

4.1 through 4.10 - See ““Basic Boating Knowledge - Core” (*latest version*)

### **4.11 Discipline Specific**

4.11.1 Describe examples of actions to be taken when a temporary increase in wind speed occurs. Describe the steps to be taken if sustained increased winds appear imminent.

4.11.2 Describe critical preventive maintenance that should be performed periodically on a typical small sailboat.

4.11.3 List maintenance issues that, if found during a pre-trip inspection, would require cancellation of the trip if not corrected before departure.

4.11.4 Describe importance of recognition of overhead hazards.

## **5.0 Safe Boat Operation**

5.1 through 5.5 - See “Basic Boating Knowledge - Core” (*latest version*)

### **5.6 Discipline Specific**

5.6.1 List items that must be checked periodically to avoid dangerous failures while sailing.

5.6.2 List important safe navigation responsibilities of a sailboat operator.

5.6.3 Describe the purpose and usage of each of the following knots: figure 8, square/reef, clove hitch, round turn & two half-hitches, cleat hitch, bowline, and sheet bend.

5.6.4 Describe various types of anchors, associated equipment, and their use. Describe the proper scope, anchoring and retrieval procedures, and safety considerations.

## 6.0 Navigation

6.1 through 6.4 - See “Basic Boating Knowledge - Core” (*latest version*)

### 6.5 Discipline Specific

6.5.1 Describe typical navigation rule situations and the operator’s legal obligations regarding:

- Rule 12(a) - Sailing Vessels
  - (i) - Starboard tack vs Port tack
  - (ii) - Windward vessel vs Leeward vessel
  - (iii) - Unclear situation

## 7.0 Emergency Preparedness and Response

7.1 through 7.6 - See “Basic Boating Knowledge - Core” (*latest version*)

### 7.7 Discipline Specific

7.7.1 Describe dynamic crew locations to help prevent capsizing a centerboard or dagger board sailboat and the effect of moving weight on board all sailboats.

7.7.2 Describe capsizing and how to prevent and recover from capsize including important safety considerations with regard to sail boats including rigging entanglements, enclosed spaces, etc.

7.7.3 Describe how to avoid running aground and recovery procedures from a grounding.

## 8.0 Other Water Activities

8.1 through 8.2 - See “Basic Boating Knowledge - Core” (*latest version*)

## 9.0 Environmental Concerns

9.1 through 9.2 - See “Basic Boating Knowledge - Core” (*latest version*)

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**Origin and Development of *Basic Boating Knowledge – Plus Sailing***

*BSR/NASBLA 102-2022: Basic Boating Knowledge – Plus Sailing* was developed in 2019-2022 by the National Boating Education Standards Panel. It was adapted from work previously compiled by the Education and Outreach Committee of the National Association of State Boating Law Administrators and from other organizations within the boating education community.

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This standard represents, as of the date of publication, the consensus of knowledgeable persons, currently active in the field of small craft, on knowledge components that contribute to small boat safety. The National Boating Education Standards Panel assumes no responsibility whatsoever for the use of, or failure to use, standards or technical information reports promulgated by it, their adaptation to any processes of a user, or any consequences flowing therefrom.

Prospective users of the standards and technical information reports are responsible for protecting themselves against liability. The National Boating Education Standards are guides to achieving a level of knowledge and are not intended to preclude attainment of desired results by other means.