Using the Sailing Skills
American National Standard for
On-Water, Skills-based
Instruction for Safer Boating

Technical Support Document
for the Sailing Skills ANS

Embrace the Standard • Design Instruction
Assess Performance • Make it Real

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This Technical Support Document (TSD) is one of four such TSDs developed by the United States Sailing Association, through funding provided in part by the United States Coast Guard’s Recreational Boating Safety Grant Program for non-profit organizations.

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Abstract

This Technical Support Document (TSD) has been developed to assist education providers, course developers, instructors, students, operator evaluators and operators in using the On-Water Recreational Boating Skills Standard – Sail for entry-level recreational sailing skills instruction and assessment.

The information contained in this document enhances understanding and guides the application of the On-Water Recreational Boating Skills Standard – Sail in the design and implementation of instructional programs, courses, and curriculum for entry-level recreational boat operation. The standard was developed and agreed to by recreational boating experts from around the United States and validated through comprehensive national surveys and field-testing programs. The objective is to help raise, on a national level, the overall quality and availability of skills-based training and instruction for entry-level recreational boat operation, with the primary goal being an increase in the level of safety and enjoyment boaters experience on the nation’s waterways.

Disclaimer

The content of this Technical Support Document (TSD) is advisory only. Its use is entirely voluntary. It represents, as of the date of publication, current understanding of best practices associated with designing and delivering recreational boating safety educational programming designed to incorporate content of the On-Water Recreational Boating Skills Standard – Sail (EDU-3 Skills-based Sailboat Standard as titled by The American Boat & Yacht Council).

The National On-Water Standards (NOWS) Program, its subject matter experts and organizations involved in the development of this TSD assume no responsibility whatsoever for the use of, or failure to use, On-Water Recreational Boating Skills Standard – Sail, this TSD, instructional materials promulgated by them, their adaptation to any instructional program, or any consequences flowing therefrom.

Users of this TSD are responsible for protecting themselves against liability associated with application of its content.

This TSD is a guide to achieving specific entry-level skills in recreational sailboat operation identified within On-Water Recreational Boating Skills Standard – Sail and is not intended to preclude attainment of desired results by other means.
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Introduction

This Technical Support Document (TSD) provides information that complements the American National Standard (ANS) titled *On-Water Recreational Boating Skills Standard – Sail* (EDU-3 Skills-based Sailboat Standard) also known as the Sailing Skills ANS. The Sailing Skills ANS went into effect on May 25, 2017.

This TSD includes information to help educators (course developers, instructors, trainers) learn about and use standards for on-water instruction in entry-level skills for recreational sailboat operation. Detailed information about the standard is included, as well as benefits and guidelines for applying the standard to instructional programming.

The Sailing Skills ANS and this TSD are part of a larger system of standards and other resources designed to help increase the level of safety and enjoyment boaters experience on our nation's waterways. The standards and tools focus on increasing the level of quality and consistency of the instructional approaches used to deliver on-water skills-based education in recreational Power, Human-propelled and Sailboat operation as well as the specific outcome skills boaters are able to demonstrate as a result of participating in those different approaches.

Since the Sailing Skills ANS and this TSD focus on the outcome skills of sailboat instruction, they are intended to be used in conjunction with the *On-Water Recreational Boating Skills Standard – Instructional Approach (EDU-4 On-Water Instruction Standard)*, also known as the Instructional Approach Standard (IAS), and its corresponding TSD. The IAS and its TSD examine in detail the overall instructional approach used to deliver the outcome skills identified within the Sailing Skills ANS and this TSD. Also, the IAS should be used in conjunction with the standards and TSDs for the Powerboating and Human-propelled domains as well (see Figure 1).

Figure 1: Relationship of On-Water, Skills-based American National Standards for Safer Boating

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1 The title of the standard is *On-Water Recreational Boating Skills Standard – Sail*, however ABYC has titled the ANS as *EDU3 Skills-based Sailboat Standard* to fit within its categorization system. Both titles are synonymous and may be used interchangeably in this document. Additionally, the phrase “Sailing Skills ANS” may be used throughout this document to refer to either title.
Reader Navigation

This TSD is organized into four main chapters. To get the most out the document, it is recommended that the following be used to determine which areas are applicable to the reader.

Introduction (this section).

Chapter 1. Embrace the Standard - Provides a brief history and places the Sailing Skills ANS in the context of a national system of standards for recreational boat operation. Read this chapter to understand what the ANS is, why it was developed and the process used to develop and validate it.

Chapter 2. Design Instruction – Provides information on how to use the Sailing Skills ANS to design, develop and implement courses, curricula, syllabi, and lesson plans. Read this chapter to understand ways in which instructional curriculum may be designed and implemented using the Sailing Skills ANS.

Chapter 3. Assess Performance - Provides guidelines for using performance assessment / measurement rubrics to design specific behaviors into programs that result in skilled entry-level boat operation. Read this chapter to learn about how to assess, develop and strengthen students participating in entry-level instruction in recreational boat operation.

Chapter 4. Make it Real – Provides detailed information about the elements and assessment rubrics of the Sailing Skills ANS to help apply it to instructional programming. Includes information for integrating Sailing Skills ANS within instructional course and programs.

Appendices:
A. The Sailing Skills ANS.
B. Sailing Knowledge Standard to help design integrated skills and knowledge instructional programming.
C. Integrating TSD information within Education Provider Materials.
D. Additional Resources. *
E. Glossary.

* Note: This document is intended to be a resource that provides important information about the on-water standards, why and how they were developed, and how to use the Sailing Skills ANS along with the Instructional Approach Standard to design instructional programs and assess performance. This TSD is not meant to be a substitute for a textbook on instructional design. For those without training or experience in instructional design, please consider the resources provided in the appendices.
Chapter 1. Embrace the Standard

Embrace - *verb* - *embrə* - to take up especially readily or gladly.

The Sailing Skills ANS was created using public grant funding; therefore, it belongs to the public. All are encouraged to embrace the standards as their own and use them to the maximum possible benefit. The more educators use the standards, the more our waterways can be safe and fun for all boaters.

Why have Standards?

The mission of the National Recreational Boating Safety (RBS) Program of the United States Coast Guard (USCG) is to ensure the public has a safe, secure, and enjoyable recreational boating experience by implementing programs that minimize the loss of life, personal injury, and property damage while cooperating with environmental and national security efforts.²

The USCG 2012-2016 RBS Strategic Plan Objective 3 ‘Advanced and/or On-Water, Skills-Based Boating Education,’ aims to “Increase the number of boaters who have completed advanced and/or on-water, skills-based boating education.” “To measure our progress, we must also establish a baseline and develop guidelines and standards.”³

The Sailing Skills American National Standard (ANS) and this Technical Support Document (TSD) serve as a primary source of information used to help raise and standardize the overall level of quality, consistency and availability of on-water, entry-level powerboat education across the country in order to further enhance the safety and enjoyment of our nation’s recreational boaters. The standard also serves as a basis for monitoring progress toward that objective.

How were the Standards created?

The on-water skills ANSs were developed by the National On-Water Standards (NOWS) Program, which was funded through the USCG’s non-profit grant program in support of Strategic Plan Objective 3; the outcome being ANS within the context of the American National Standards Institute (ANSI). The standards were developed using the following voluntary consensus process:

- Engage a professional change management facilitator to design and manage an open, inclusive, and balanced process for developing and reaching consensus on the standards.
- Assemble a diverse core team of nearly 50 subject matter expert (SME) volunteers from across the recreational boating community to develop the initial content for the standards.
- Gather input on content of the standards from an additional 950 SMEs around the nation.
- Achieve consensus among the core SME team as to the fundamental skills individuals should be able to perform in order to be considered safe entry-level recreational boat operators, as well as the characteristics and qualities of the on-water instructional approach that should be used to develop those skills.
- Validate the standards by field-testing them at over 20 different venues around the country using actual boats operated by real people.
- Attain American National Standard status using a process led by the American Boat & Yacht Council (ABYC), which is an ANSI-accredited Standards Development Organization.

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³ Ibid; page 21
In total, over 3000 subject matter experts and recreational boaters from around the country were involved in the five-version process to produce the standards. The American Boat & Yacht Council (ABYC), an ANSI Accredited Standards Developer (ASD), led the final stage of the process. The overall process resulted in the development, testing and consensus on 98 entry-level skills and over 1,100 specific safety-related behaviors associated with entry-level recreational boat operation, across the three domains of Powerboating, Human-propelled, and Sailing.

For more information about the process used to develop the NOWS ANSs, visit www.onwaterstandards.org.

Developing proficient entry-level recreational powerboat operators toward the goal of safer boating requires consideration of a number of different factors, including:

• Ensuring the ‘right’ people are involved including both instructors and students appropriate for the program.
• Using instructional methods to engage students in hands-on experience with practice and feedback that takes place while on a boat.
• Establishing an environment that encourages students and instructors to learn, grow and develop as they engage in a safe learning context.
• Having among the key players a clear and shared understanding of the learning outcomes targeted for the experience.

To make boating instruction most effective, best practices for on-water, skills-based instruction needs to include standards associated with this entire system of people, methods, context and outcomes.

Four ANSs have been developed to address on-water, skills-based instruction for safer boating associated with this system. The On-Water Recreational Boating Skills Standard – Instructional Approach (EDU-4 On-Water Instruction Standard), also known as the Instructional Approach Standard (IAS), serves as the ‘umbrella’ ANS. It identifies the characteristics and qualities associated with all parts of the system and is applicable across the three recreational boating education domains of Power, Human-propelled, and Sail. The three domain-specific skills ANSs identify the learning outcomes of instruction associated with each domain of recreational boating. They are:

• On-Water Recreational Boating Skills Standard – Power (EDU-1 On-Water Power Standards), also known as the Powerboating Skills ANS
• On-Water Recreational Boating Skills Standard – Human-propelled (EDU-2 Skill-Based Human-Propelled Standard), also known as the Human-propelled Skills ANS
• On-Water Recreational Boating Skills Standard – Sail (EDU-3 Skills-Based Sailboat Standard), also known as the Sailing Skills ANS. (described in this TSD)

The skills-based standards represent a consensus of recreational boating experts from across the country as to what skills should be included within an entry-level curriculum of instruction. More specifically, they identify the skills recreational boat operators should be able to demonstrate as a result of participating in an on-water skills-based instructional program.

To learn more about these standards and their accompanying TSDs, visit www.usnows.org.

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4 The parenthetical titles (EDU-1..., EDU-2..., and EDU-3...) of the domain-specific skills standards refer to the ABYC titles, which are used to fit within its categorization system. The respective titles are synonymous and may be used interchangeably. Additionally, the abbreviations “Power Skills ANS,” “Human-propelled Skills ANS,” and “Sailing Skills ANS” may be used.
What does the Powerboating Skills ANS do?

The Sailing Skills ANS identifies entry-level, performance-focused recreational boating skills. While the Sailing Skills ANS describes outcome-based skills (the “what”), it does not address the process used to teach or acquire them (the “how”), since that is a decision best made by the education provider.

The Sailing Skills ANS includes a fundamental set of on-water skills in order for the operator to be considered safe at an entry-level. Some instructional programs may contain additional elements not listed in the Sailing Skills ANS. Other programs may contain a subset of the Sailing Skills ANS elements. Additionally, many instructional programs may contain knowledge components in addition to on-water skills.

Rather than being prerequisites for entering an instructional program, the skills contained in the Sailing Skills ANS would typically be learned as a result of participating in a beginner-level on-water boating course, although they may have been obtained in other ways, such as personal experience.

The Sailing Skills ANS contains entry-level skills for the operation of the boat from the point it is in the water and ready for pre-trip inspection. Other than departure and return to the shoreline, the standard does not include launching or retrieving the boat with a trailer or hoist. Other than required items (e.g., life jackets, distress signals, etc.) to be carried aboard, it does not include the use of recommended items such as navigation charts, or a VHF radio, compass, anchor, etc.

Some elements in the Sailing Skills ANS may require at least one other skill or knowledge element to be completed beforehand. In other words, some skills are progressive in nature and participants may need to be proficient in some elements prior to moving on to the next.

What are the operating conditions?

The Sailing Skills ANS is organized into opening statements of maximum platform size and operating conditions followed by seven sections or stages of recreational boat operation. The opening statements are included in order to place the Standard within a uniform context applicable to the average conditions expected to be encountered during an instructional event. Additionally, the constraint of boat length is included to limit the size of platform upon which the skills would be expected to be accomplished. The platform characteristics and operating conditions are:

- **Boat characteristics**: Small keelboat or sailing dinghies to include daysailers, centerboard/daggerboard boats, or multihulls at a maximum of 26 feet with tiller steering and with no auxiliary power in operation
- **Wind / water conditions**: 10 knots or less; maximum 12 knot gusts; waves 2 feet or less
- **Operation conditions**: Daytime with no restricted visibility or threatening weather

The operations and skills in the Sailing Skills ANS are intended to be carried out within all legal and good seamanship parameters for the operational environment. A statement to this effect is included, and reads:

“NOTE: For those recreational boat operations where the boat is underway, individual skill-based standard elements in this On-Water SAIL Standard are to be accomplished in accordance with any aids to navigation, navigational rules, and any regulations applicable to the location in which the skill is being executed.”
How is the Sailing Skills ANS organized?

Individual skills are contained within seven sections or ‘stages of operation,’ which are:

1. Prepare to depart – the boat is in the water and secured.
2. Leave a departure point (e.g., dock, slip, shoreline, etc.) – the boat leaves from a particular point of departure such as a dock, slip, mooring, ramp or shoreline.
3. Maneuver in close quarters – the boat is operating in a limited or confined waterway.
4. Operate in open water – the boat is operating in an open waterway with plenty of room to maneuver.
5. Arrive at a destination (e.g., dock, slip, shoreline, etc.) making first contact – the boat makes first contact at a point of arrival such as a shoreline, dock, or slip.
6. Secure the boat (preparing to leave the craft unattended) – the boat is being readied to leave unattended.
7. Perform general safety/emergency procedures/maneuvers – skills that can be performed during any of the operations.

Each stage of operation contains a list of Elements or individual skills that are each described in two parts, following a leading stem phrase “The operator will be able to...”. The first part (Part A) is the skill, and the second part (Part B) is the condition, or ‘proficiency,’ associated with successful performance of that skill. For example:

<table>
<thead>
<tr>
<th>4.3</th>
<th>The operator will be able to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A:</td>
<td>Turn the sailboat away from the wind...</td>
</tr>
<tr>
<td>B:</td>
<td>adjusting sails and tiller and communicating to crew if appropriate.</td>
</tr>
</tbody>
</table>

It should be noted that the numerical identifiers (‘4.3’ in the above example) assigned to the standard elements are for ease of reference only, and do not imply any sequential process of skill learning or performance. In addition, because of the nature of the stages of operation, some elements may be repeated, or may appear to be similar to elements in another stage of operation. It should also be noted that individual elements are organized within the seven operations for ease of reference and that each element can be applied within other operations during the design and delivery of instruction.

Is it mandatory to use the Sailing Skills ANS?

The NOWS ANSs were created voluntarily and by consensus of recreational boating experts from across the country. As a result, they represent the foundation of best practices in on-water skills-based instruction in entry-level recreational boat operation.

Although there is no mandate for their use, all organizations and individuals providing recreational boating education are encouraged to design and deliver on-water courses that follow the ANSs. Doing so enables organizations and individuals to reap the benefits of higher quality instruction, students with greater readiness to engage in safer boating, and increased credibility of their programs in the marketplace. Following the standards also enables individuals and organizations to be part of creating the future of recreational boating education.
Is there a fee to use the Sailing Skills ANS? Where can it be obtained?

The Sailing Skills ANS and supporting its documents are freely available for use by anyone interested in the design and delivery of on-water skills-based recreational powerboat instruction. It is included in the appendix to this document as well as available for free download at the NOWS Program website.

To download a free copy of the Sailing Skills ANS, visit: www.usnows.org.
Chapter 2. Design Instruction

**Design - verb** - deˈsign ˈdi-ˈzīn\- to make drawings, preliminary sketches, or plans; to plan and fashion the form and structure of an object, work of art, project, program, etc.

The On-Water Standards may be used to design effective instruction programs, or strengthen existing programs.

For the purpose of a discussion on skills-based instructional design, please consider the following definitions:

- **Novice**: A person who is new to an activity and typically has little or no knowledge or skills related to that activity.
- **Beginner**: A person who has begun a course of instruction or is learning the fundamentals.
- **Entry-level**: The proficiency reached by a person who has successfully completed the appropriate beginner instruction and is ready to pursue (or ‘enter’ safely into) the associated activity.

In the context of sailboat skills instruction, the novice is someone who has decided they want to ‘drive’ a sailboat, but has perhaps never done so, or maybe tried it with supervision once or just a few times. The novice may have some notional concepts about sailboat operation but will likely have few direct skills, if any.

The beginner has enough motivation to ‘take the plunge’ and obtain instruction for sailing skills. They may or may not hold a safe boating certificate issued by their state of residence, and they may have done a bit of research about boating, from books, magazines, videos, or Internet-based media.

The entry-level operator is a person who has successfully completed a beginner skills-based instructional program / course(s), or has sufficient personal experience, and is deemed ready to safely be in command of a recreational sailboat, under certain conditions. This includes whatever complimentary knowledge is required to be able to safely operate the boat.

The language structure of the Sailing Skills ANS is outcome-based, meaning that the skills contained in the standard describe the outcome as a result of completing on-water skills-based boating instruction.

### Designing New Programs

Like any quality product, an effective instructional program begins with sufficient planning and a viable foundation. One of main purposes of the On-water Boating Skills Standard - Sail is to provide a solid foundation upon which high quality skills-based instructional programs for entry-level recreational sailboating can be built.

Course developers are asked to consider the following recommended guidelines for designing their beginner sailboating skills instructional program:

*Decide first on the purpose and outcome skills for the instructional program.*

Define and describe why the instructional program is being developed and what the student should be able to achieve as a result of participating in the program. This will help set the context for decision making about curriculum and course designs included within the instructional program.
The Sailing Skills ANS identifies the outcome set of skills that an entry-level operator should be able to perform as a result of successfully completing a skills-based instructional experience in recreational sailboat operation. Generally speaking, the outcome of the instructional program is an entry-level operator that is more likely to be safe because they are able to satisfactorily perform all of the skills.

Since the skills identified in the Sailing Skills ANS are targeted at beginners, prerequisites are not necessary for a course that is designed using the standard. However, course developers may choose to establish knowledge or skills prerequisites, based on their business model, equipment (boats), or environment (waterway or prevailing weather conditions).

**Use the Sailing Skills ANS to confirm the instructional program will include the complete list of skills (the elements) identified in the standard.**

The Sailing Skills ANS contains the fundamental skills that have been determined by the subject matter experts to apply across the widest possible platforms and environments. Become familiar with the profile of all skills contained within the Sailing Skills ANS before designing a curriculum or instructional program. Including additional elements in an individual program is certainly appropriate. Course developers and instructors are encouraged to add material to their offerings as applicable to their local markets, platforms, or waterways.

The Sailing Skills ANS is not itself a course. Rather, it describes the desired outcome as a result of successfully completing one (or more) beginner sailboating skills course(s). When the student completes the course(s), he or she should be able to perform all of the elements contained in the Sailing Skills ANS. Therefore, decisions should be made about how skills instruction could be delivered (e.g., one long course, multiple short courses, etc.).

The skills identified in the Sailing Skills ANS are all independent from each other. They can be learned, demonstrated and evaluated in most cases as separate skills without dependency across multiple skills. Therefore, they can be designed into an instructional program without having to link or connect them during instruction. Student performance on each skill can be assessed independently as well. A student can be highly proficient at one and have little proficiency in another. Therefore, when designing a program, consider each skill as an individual learning opportunity to be designed, delivered and evaluated independently from each other.

Familiarity with all of the standard elements will enable a better understanding of the full set of skills students should be able to perform as a result of instruction. This will also better inform the course designer about how best to organize and sequence learning objectives and instructional activities to best meet the needs of students.

Once the high-level design of the instructional program has been established, determine the number and scope of the course(s) required to deliver the skills associated with the curriculum, Then, determine which courses will deliver which skills to what level of proficiency.

**Develop courses using a logical progression of skills development and experiential learning.**

The Sailing Skills ANS identifies the fundamental set of skills associated with entry-level recreational sailboat operation but it does not prescribe the exact order or sequence in which the skills must be taught or learned. It is mainly up to the course designer or instructor to determine the order or sequence. However, there is a logical progression for some of the skills contained within the standard making it more productive for a student to learn some of the skills before learning others. For example, it might
make more sense for a student to learn the skill of ‘slow and then accelerate the sailboat’ before the ‘return to man overboard (MOB)’ skill.

Manageable blocks of skills can be grouped together into learning modules. This is easily done, since the standard elements are written as outcome-based, rather than technique-based. For example: a Standard Element for the skill of moving a sailboat in a straight line would be written “the operator is able to… Steer the sailboat in a straight line (hold a steady course)” rather than “the instructor will emphasize tiller control so the student effectively sails on a chosen heading.”

When skills development is the instructional focus, learning is best accomplished through experiential instruction in situ (i.e., the learning takes place in the actual environment that the boat would normally be operated). The Sailing Skills ANS has been developed to target the skills-based outcomes for active, on-water, and hands-on approaches to recreational boating instruction.

Experiential learning is one of the most influential ways to enable students to learn skills. Experiential learning occurs when a student engages in the process of learning through experiences and then reflecting on the learning they achieve.

One of the more powerful applications of experiential learning is the use of real (vs. realistic) experiences on a boat during the learning process. As a result, it is important to consider all of the human senses associated with the experience of recreational boating. Thought should be given to designing experiential learning activities so that students develop all their available senses as they learn to demonstrate skilled recreational boat operation. Experiences can take into account the feel of the wind, the sounds of other people and boats, as well as the mechanical steps and procedures associated with boat operation. Awareness of the speed of the boat through the water is often difficult for students to accurately perceive. Continual coaching on this aspect makes the learning of many other tasks much easier.

Because experiential learning is so potent, the learning of several related skills can be combined into one activity or scenario. This has a synergistic effect that promotes efficiency and effectiveness of the instruction.

Allow sufficient time for students to learn more difficult or complex skills.

Some of the skills in the Standard are larger in scope and more comprehensive than others. For example, the ‘Return to man overboard (MOB)’ skill involves a number of different skills and behaviors put together to achieve a desired outcome - that is to quickly and safely maneuver the boat back to a person in the water. Whereas this comprehensive skill might be difficult to learn in the aggregate, it is an excellent learning opportunity that brings together several other individual skills. ‘Return to MOB’ can be learned and demonstrated on many different types and sizes of boats.

These skills will likely take more design time, as well as more actual time to learn during instruction. Considerations for this include:

- Allow sufficient time to design more comprehensive skills.
- Consider parsing comprehensive skills into smaller components.
- Design experiences for learning portions of a larger skill prior to other parts.
- Plan to use more instructional time on those skills that are larger in scope.
- Be mindful about the type of boat used for learning comprehensive skills.

Reviewing and Updating Existing Programs

Existing sailboat instruction courses may be reviewed and updated using the Sailing Skills ANS. Many
of the guidelines written in the preceding section apply, and in this case it is a matter of taking a look at
the existing program to see how the course design and curriculum align with the Sailing Skills ANS.
Becoming familiar with content of the standard is equally important whether designing a new course or
updating an existing one. Additional guidelines include:

Gather information and ideas from instructors about existing courses and past student outcomes.

Since they are the ones who interact most frequently and directly with students, instructors often have
valuable perspectives about existing courses and ideas on how they might be improved. Instructors can
be briefed on the Sailing Skills ANS and asked to compare the Elements with what they have experienced
in genuine instructional scenarios. Instructors can help determine if there are areas of the existing
program that might be missing or need improvement so that they better align with the Standard.

Observe practical on-water exams during existing courses to determine if all skills elements are
currently included.

The Sailing Skills ANS may be used as a checklist of skills to see if all of the elements are being included
in existing skills practical exams. Using the checklist to observe skills can help quickly determine which
ones are present, which ones are missing, or which might need improvement within the existing
instructional course. For example, students consistently demonstrating low levels of performance on any
one skill may indicate a potential problem with the instructional design or approach used to teach that
particular skill.

Consider creating an alignment matrix to analyze the contents of an existing course.

The modules or individual components of an existing course may be placed into a column and lined up
with the standard elements, which are placed in another column. This can enable a comparison between
the contents of a course with the contents of the standard. It also may reveal gaps, or areas within the
existing course that need strengthening.

Determine what changes, if any, should be made to the existing course.

After performing the appropriate amount of analysis, as suggested in the previous guidelines, decisions
can be made and priorities assigned to the areas that will have the most impact in successful student
outcomes. Perhaps the course is sufficient as is and requires no change, since it already aligns with the
standard. Or, maybe some gaps were found between the existing course and the standard elements, in
which case additional course content may need to be created or emphasized. In either case, by using the
standard, the existing program can be evaluated to determine its completeness and whether or not it
should be changed.

Alignment of Knowledge with Skills

The primary focus of the Sailing Skills ANS is on skills associated with entry-level recreational boat
operation. However, safe recreational boat operation also requires knowledge as well as good judgment
and a positive attitude.

The National Association of State Boating Law Administrators (NASBLA) National Boating Education
Standards Panel (ESP) is the organization responsible for the NASBLA-102-2017 Basic Boating
Knowledge - Sailing Standard. Like the Sailing Skills ANS, the Sail Knowledge Standard is also an ANS. Course developers and instructors can choose if, when and how to integrate knowledge and skills components into their instructional approach. It should be noted that Knowledge Standard Elements can be taught in a non-classroom setting as part of an on the water, skills-based course, particularly at an entry level.

Although different groups developed the Knowledge and Skills Standards at different times, the two standards are complimentary and can be used together by course developers. A separate Technical Report is planned to be written for the Knowledge Standard, and that document will provide details of the how to use the Knowledge Standard. Appendix B of this document contains more information about the Sailing Knowledge Standard.

Design Instruction - Q & A

Does a course need to be certified that it meets the Standard?

Although not required, education providers are encouraged to follow the Sailing Skills ANS in the design and implementation of on-water instruction. It is recommended that they be deliberate about their use of the ANS to design and implement their on-water instructional course or program.

For existing courses, this can involve determining through self-assessment the extent to which the course follows the Sailing Skills ANS. The NOWS Program has developed a Self-Assessment Checklist for this purpose.

For a free copy of a NOWS Self-Assessment checklist for assessing the extent to which the instructional approach follows the Sailing Skills ANS, visit: www.usnows.org.

What if a program already follows a different standard?

The Sailing Skills ANS sets the foundation for best practices in entry-level, on-water skills-based sailboat instruction. If the program under consideration already follows a standard, check the extent to which that standard follows the Sailing Skills ANS. If the program standard meets or exceeds the Sailing Skills ANS, there is no need to change the program. If the program standard is set lower than the Sailing Skills ANS, make alterations to ensure the program meets or exceeds the Sailing Skills ANS.

If the program under consideration was developed by a different organization, such as a parent organization or national association, contact the program owner and inquire whether or not the course was designed to follow the ANS.

- If the program is designed to follow the Sailing Skills ANS, check to ensure implementation of the program locally is taking place according to the program standards.
- If the program is not designed to follow the Sailing Skills ANS, work with the course owner to update the program so that if follows the ANS.

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5 A ‘Technical Report’ and a ‘Technical Support Document’ are similar types of documents used to provide additional information in support of an American National Standard.
**Is a certified instructor required to teach a course that includes the skills identified in the Sailing Skills ANS?**

Although a non-certified instructor could theoretically teach skills identified by the Sailing Skills ANS, it is important that instructors have appropriate experience, training and certification as required by the organization providing the education. If a course includes skills identified by the standard, and that course requires certification, then all the necessary procedures and protocols need to be followed to acquire the appropriate certification for that course. It is also recommended that course developers receive training on how to design instructional programming.

**How many standard elements are needed to ensure that a course is complete?**

The Sailing Skills ANS identifies the skills a recreational boat operator should be able to perform at an entry-level. For one course to comply with the entire Standard, it would need to deliver all the skills identified within the standard. However, there is no pre-determined number of courses it should take to deliver all the skills within the standard. Therefore, a number of different short courses could collectively comply with the full standard, even though each delivers only a subset of the skills identified within the standard. The number of courses or instructional experiences required to deliver the complete set of entry-level skills is a decision to be made by the education provider, based on unique situations, curriculum design, etc. For example:

- Time limitations may necessitate the design and delivery of an introductory course, in which case using a subset of the skills from the standard may be appropriate.
- An organization may require verification or certification of a specific course, which implies that all of the skills identified in the standard may be needed in order to comply with that organization’s certification specifications.
- Additional skills or learning experiences beyond the scope of the standard may be needed to obtain a particular certification.

**Can the Standard Elements be edited or changed?**

The Sailing Skills ANS has been designed to fit within a particular set of parameters such as boat size and wind/water conditions. When designing instruction that fits these parameters, the elements should remain intact and unchanged. However, a course or program can be delivered so that it exceeds the levels of proficiency identified within the standard. In these situations the standard remains the same. It is the course that is ‘changed’ to exceed the standard. Appropriate precautions should always be taken to ensure a safe learning environment and experience.

**Can more skills than are currently in the Sailing Skills ANS be included in a course?**

Yes. The Sailing Skills ANS contains the fundamental set of skills associated with safe recreational boat operation at the entry-level, as agreed to by experts looking at a national level. There may be other skills not contained within the standard that are relevant to a specific location or learning environment and that impact safe boat operation. If these additional skills are relevant and important, then they should be added to the program.
Chapter 3. **Assess Performance**

Assess - *verb* - as·sess \\ə-ˈses\ to estimate or judge the value, character, etc., of; evaluate.

The rubrics that correspond to each element of the Standard make it easier to **assess** and measure the performance of a student or boat operator.

**Rubrics - Definition and Purpose**

The use of a standard for the design and implementation of instructional programming requires that performance against that standard can be assessed. Therefore, part of the standard development process involved the creation of rubrics.

A rubric is an assessment tool used to create deliberate and explicit clarity about the targeted outcome of learning. Rubrics are particularly helpful in learning situations where the focus is on physical education or training; i.e., skills development. Rubrics are an authentic approach to education in that they help instructors and evaluators design and assess student learning that takes place within the context of eventual use of skills. Specifically, rubrics are used to:

- Identify the priority characteristics of a desired outcome or final product of performance. In this case, for a particular boating skill, it is expressed by a standard element.
- Differentiate strong from weak performances.
- Make performance expectations known in order to increase the quality of learning.

Rubrics were developed for use with the Sailing Skills ANS to:

1. Help course developers and instructors raise the quality of recreational boating education.
2. Assist in determining the effectiveness of the standard to differentiate safe and unsafe recreational boat operation.
3. Provide observers with a way to distinguish different skill levels to determine if the level of difficulty identified within the standard was at the entry-level.

The rubrics were created using the same development process as the Standard elements. The rubrics were also used to field-test the Sailing Skills ANS as part of the on-water validation program.

The focus of the rubrics is on entry-level behaviors that can be observed while skills are performed rather than on the process or method for teaching or accomplishing the skills. By providing additional clarity beyond the ‘Part B’ proficiency description in the Standard Elements, the rubrics enable:

- Course designers to have more information about what might be included within their curriculum to achieve desired performance outcomes.
- Instructors and evaluators to calibrate behavior observations and assess performance more easily.

**Assessing Performance with Rubrics**

Standard **elements** are individual skills that are described in two parts, following a leading stem phrase “The operator will be able to...”. The first part of the element, Part “A” is the skill, and the second part of the element, Part “B” is the condition or proficiency associated with successful performance of that skill.

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Each standard element has a corresponding rubric describing behaviors associated with the following three levels of performance:

- Level 3: Successful Performance
- Level 2: Needs Improvement
- Level 1: Unacceptable (Unsuccessful) Performance

An element describes a skill and proficiency, whereas the rubric describes the qualities of behaviors and actions that might be observed during the performance of the skill.

Measureable characteristics (e.g., angles in degrees, distance in boat lengths, etc.) are included in the rubrics whenever possible to allow performance to be quantified, and help the evaluator select the appropriate level of performance. To help illustrate the difference between elements and rubrics, the example from Chapter 1 is revisited. Standard Element 4.3 is shown below, along with the corresponding rubric:

<table>
<thead>
<tr>
<th>Element</th>
<th>4.3</th>
<th>The operator will be able to:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A: Turn the sailboat away from the wind… B: adjusting sails and tiller and communicating to crew if appropriate.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Successful Performance</td>
</tr>
<tr>
<td><strong>The operator:</strong></td>
<td></td>
</tr>
<tr>
<td>4.3a</td>
<td>Turns the boat away from the wind.</td>
</tr>
<tr>
<td>4.3b</td>
<td>Eases sails in coordination with turn.</td>
</tr>
<tr>
<td>4.3c</td>
<td>Adjusts tiller in a smooth continuous motion.</td>
</tr>
<tr>
<td>4.3d</td>
<td>Communicates properly to crew if appropriate.</td>
</tr>
<tr>
<td>2</td>
<td>Needs Improvement</td>
</tr>
<tr>
<td><strong>The operator:</strong></td>
<td></td>
</tr>
<tr>
<td>4.3a</td>
<td>Turns the boat away from the wind.</td>
</tr>
<tr>
<td>4.3b</td>
<td>Eases sails too little or too much.</td>
</tr>
<tr>
<td>4.3c</td>
<td>Adjusts tiller inconsistently.</td>
</tr>
<tr>
<td>4.3d</td>
<td>Uses some communication if appropriate.</td>
</tr>
<tr>
<td>1</td>
<td>Unacceptable (unsuccessful) Performance</td>
</tr>
<tr>
<td><strong>The operator:</strong></td>
<td></td>
</tr>
<tr>
<td>4.3a</td>
<td>Does not turn the boat away from the wind.</td>
</tr>
<tr>
<td>4.3b</td>
<td>Pulls sails in or does not ease sails.</td>
</tr>
<tr>
<td>4.3c</td>
<td>Adjusts tiller erratically or does not adjust tiller.</td>
</tr>
<tr>
<td>4.3d</td>
<td>Communicates poorly or does not give commands.</td>
</tr>
</tbody>
</table>

In this example, the skill is written as:

[The operator will be able to:] A: Turn the sailboat away from the wind…

and the priority descriptor of proficiency is written as:

B: adjusting sails and tiller and communicating to crew if appropriate.

Some of the rubric for this element are derived directly from Part B and used in the three levels.

- Level 3: Adjusts tiller in a smooth continuous motion.
- Level 2: Adjusts tiller inconsistently.
- Level 1: Adjusts tiller erratically or does not adjust tiller.

Additional behaviors are written into each rubric to help instructors coach students for further learning and skills development and to enable an evaluator to more effectively determine the level of performance. Following are the purpose and uses of the three levels:
• Level 3 Successful Performance - Identifies the successful level of proficiency with the Element. Contains key information from Part B of the Element and targets the desired level of performance. Helps instructors focus student attention on the desired outcome for a particular skill.

• Level 2 Needs Improvement - Describes a level of performance that is not quite at the targeted or desired level. Provides instructors with a means to identify and focus coaching opportunities for additional skills development.

• Level 1 Unacceptable (unsuccessful) performance - Identifies behaviors that are well below the desired outcome. Significant learning may need to occur to achieve successful performance.

It should be noted that the behaviors and actions described in the rubrics are not exhaustive. Additional performance criteria may be appropriate to include in certain situations, such as unique platforms or environments. While the rubrics are provided to assist with the assessment of student proficiency, the instructor’s judgment is ultimately what determines successful or unsuccessful performance of each skill and overall.

Guidelines for Using Rubrics

Align performance assessment with the purpose and outcome of instruction.

The Sailing Skills ANS and rubrics have been developed to assist education providers with teaching and evaluating skills associated with safe recreational boating. Rubrics are provided as a means to elaborate on behaviors associated with skills identified in the standard. Student performance assessment should be aligned with the intended purpose and outcome of the instructional program. If these rubrics are not used, it is recommended to develop and integrate other rubrics aligned with the purpose and outcomes of instruction.

Use rubrics before, during and after a learning experience.

Before an instructional event, share the rubrics with students so that they know what they are being asked to learn and do. This process of establishing an anticipatory set is a powerful approach to engage students more effectively in the learning process. When students are aware of what they will be expected to learn and do, they likely to be more ready for the learning experience.

During a course, use the rubrics to provide students with feedback about their current level of skills acquisition and to target additional learning needs. This is called Formative Evaluation and it provides an opportunity to adjust learning while there is still time to redirect toward a more successful outcome.

After the instruction is finished, use the rubrics to assess overall proficiency. This is known as Summative Evaluation, and is used to determine whether a student has successfully acquired the skills associated with the Standard and safe entry-level recreational sailboat operation.

7 An anticipatory set is an instructional strategy that is intended to capture a students’ interest in the beginning of a lesson.
Establish criteria for successful course completion, using the Standard and rubrics as source material.

A question many people have asked during the standard creation and validation process is: How does one determine if a student has passed or failed the standard?

The Sailing Skills ANS and this TSD are source documents used to design instruction and assess performance. Neither the Standard nor the TSD is an instructional course and this means that a student cannot pass or fail the Standard. There is no set number of rubrics that have to be at Level 3 or Level 2 for a student to be considered a safe entry-level operator. It may be possible for a student to be assessed at Level 1 for certain skills, yet still be considered safe. Similarly, a student could be evaluated at Level 3 across the board and yet be considered unsafe, perhaps due to poor judgment or attitude.

For these reasons, while the rubrics are designed to support the work of assessing performance, the education provider has the obligation to determine what level of proficiency constitutes the passing or failing of a course. For example, it may be determined that a student needs to perform 100% of the skills at Level 3. Or perhaps 80% of the skills performed at Level 3 and 20% of the skills at Level 2 would be considered sufficient proficiency to pass, with the inclusion of an improvement plan. Likewise, the course provider will decide on the level of proficiency associated with failing a course, such as an assessment of Level 1 proficiency for one or more skills.

Modify rubrics, if appropriate, to accommodate local factors.

Some behaviors not currently in the rubrics may be relevant to a particular venue. In this case, the rubrics may be modified to include additional proficiencies applicable to unique circumstances, boat equipment, or waterway conditions within the local environment. When modifying a rubric, the quality should be raised, rather than lowered. In other words, changes to rubrics should be more comprehensive or make the outcome more challenging to achieve.

Train instructors and evaluators in the use of the Standard and rubrics.

To properly assess student performance, instructors should be trained to:

- Provide assessment during instruction to target feedback and coaching opportunities.
- Conduct an overall assessment of skills obtained to determine whether someone successfully demonstrates a level of proficiency on the profile of skills needed to be a safe entry-level recreational operator.
- Encourage continuous learning and development of students beyond their course experience.

Trained evaluators should be trusted to make detailed observations of performance and decisions about who successfully demonstrates safe and unsafe boat operation relative to the Standard. Instructor should rely on their expertise rather than numbers. This approach helps avoid the challenges often associated with pass/fail scoring systems in which the difference between pass and fail can be a single point.

Evaluators should pay particular attention to key performance measures that tend to be present in multiple skills, and are therefore included as rubrics with multiple Elements. Examples of this include:

- Communicating to crew.
- Adjusting sails and tiller.
Chapter 4. Make it Real

Make - verb – meyk \- 1. to bring into existence by shaping or changing material, combining parts, etc.
2. to produce; cause to exist or happen; bring about.

Studying the details behind each Standard Element can enable an education provider to more easily make available an effective On-Water recreational boating instruction program.

Standard Elements - Details and Assessment Rubrics

This section contains detailed information in the form of ‘one-pagers’ for each element, providing additional details about the intent behind the element, the performance assessment rubrics, and any explanations or clarifications.

Each element is followed by:

- An Understanding the Element section that indicates why the element is included in the standard and any clarifications needed such as definitions of words or phrases, or additional detail not written in the element.
- A Designing Instruction section, which includes things to be considered when designing instructional programs, as well as tips for teaching the skill.
- An Assessing Performance section, which contains the rubrics used for performance measurement.

They are organized by the same seven stages of recreational boat operations used to develop and organize the Sailing Skills ANS, which are:

1. Prepare to depart
2. Leave a departure point (e.g., dock, slip, shoreline, etc.)
3. Maneuver in close quarters
4. Operate in open water
5. Arrive at a destination (e.g., dock, slip, shoreline, etc.) making first contact
6. Secure the boat (preparing to leave the craft unattended)
7. Perform general safety/emergency procedures/maneuvers

The rubrics that follow are also available for free download in a format that allows for copying and pasting into instructional materials at: www.usnows.org.
Operation #1 Prepare to Depart

Element # 1.1: The operator will be able to: A: Determine suitability for departure... B: using information gathered about weather conditions, hazards to navigation and other environmental factors relative to departure time and duration of trip.

Understanding the Element

- In order to be safe in the dynamic and often unpredictable conditions of weather and water states, knowing the weather forecast is critical.
- It is important to be aware of underwater hazards before departure, since they are often not visible above the water surface.
- All entry-level sailors should have the ability to accurately decide if conditions are suitable for their ability as well as the boat design.
- Hazards to navigation may be anything such as rocks, sandbars, wrecks, tree stumps, etc., that could cause damage to a sailboat, crew or sailboat’s ability to maneuver.
- Environmental factors include air temperature, water temperature, wind speed, visibility, etc.

Designing Instruction

- Offer multiple options for obtaining marine weather forecasts of the sailing area.
- Consider whether reviewing a chart with students to point out hazards to navigation and buoyage is necessary for the local sailing area.
- Set parameters for limits of temperature for safe operation; e.g., determine if the risk of heat or cold exposure is too great, and set a time limit on the trip if necessary to avoid extremes of heat or cold.
- Emphasize importance of canceling trips that don’t fit a safe model with respect to weather or hazards.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
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<tbody>
<tr>
<td>3</td>
<td>Successful Performance</td>
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<tr>
<td></td>
<td>The operator:</td>
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<tr>
<td></td>
<td>1.1a Gathers information about weather conditions (e.g., wind speed/direction, air temperature, precipitation, cloud cover, water conditions, etc.).</td>
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<td></td>
<td>1.1b Gathers information about hazards to navigation.</td>
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<td>1.1c Gathers information about other environmental factors.</td>
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<td></td>
<td>1.1d Accurately determines suitability for the trip (makes correct go/no go decision) before trip.</td>
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<td>1.1e Gathers information relative to time and duration of trip.</td>
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<tr>
<td>2</td>
<td>Needs Improvement</td>
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<tr>
<td></td>
<td>The operator:</td>
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<tr>
<td></td>
<td>1.1a Gathers incomplete or inaccurate information about weather conditions (e.g., wind speed and direction, air temperature, precipitation, cloud cover, water conditions, etc.).</td>
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<tr>
<td></td>
<td>1.1b Gathers incomplete or inaccurate information about hazards to navigation.</td>
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<tr>
<td></td>
<td>1.1c Gathers incomplete or inaccurate information about other environmental factors.</td>
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<td></td>
<td>1.1d Accurately determines suitability for the trip (makes correct go/no go decision) without considering all the information.</td>
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<td></td>
<td>1.1e Gathers information relative to time of departure, but not for duration of trip.</td>
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<td>1</td>
<td>Unacceptable (unsuccessful) Performance</td>
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<tr>
<td></td>
<td>The operator:</td>
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<tr>
<td></td>
<td>1.1a Does not gather information about weather conditions.</td>
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<tr>
<td></td>
<td>1.1b Does not gather information about hazards to navigation.</td>
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<tr>
<td></td>
<td>1.1c Does not gather information about other environmental factors.</td>
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<tr>
<td></td>
<td>1.1d Makes inappropriate determination about suitability for the trip (makes incorrect go/no go decision).</td>
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<tr>
<td></td>
<td>1.2e Does not gather information relative to time or duration of trip.</td>
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</tbody>
</table>
Element # 1.2: The operator will be able to:  
A: Put on a life jacket...  
B: ensuring it is appropriate for the boat/activity, sized correctly, serviceable, and adjusted to fit properly.

Understanding the Element

Studies consistently show that wearing a life jacket dramatically increases the chances of survival in the event that a person falls overboard. Properly selecting and wearing an appropriate life jacket is critical to keeping the wearer afloat. This element affords the opportunity to encourage life jacket wear at all times while boating.

- ‘Life jacket’ means a USCG-approved life jacket.
- ‘Fitted properly’ means that the life jacket will not slip off if the person goes in the water and the life jacket simultaneously doesn’t inhibit breathing.
- ‘Sized properly’ means that the life jacket is designed for the size person who is using it. This requires reading the label before donning.

Designing Instruction

- When showing students how to wear life jackets, a good way to simulate floating in water is to grasp the shoulders of the life jacket, have the student put their arms up and try to pull the life jacket off. If the shoulder straps rise up more than six inches, then the life jacket is either too large or adjusted too loosely.
- Informing students – ‘as tight as possible without limiting breathing’ is usually tight enough.
- Be sure to use and recommend the correct type of life jacket for the activity.
  - Inflatable life jackets only serve as fulfilling the legal requirement of ‘on board’ life jackets if they are worn. Automatically inflating life jackets should only be used where getting substantially soaked is not expected, since there is a substantial risk the life jacket will inflate if it gets too wet.
  - Vest-type (Type III) life jackets are commonly used for small boats that may easily capsize. This type of life jacket enables floating and swimming in way that allows a capsized boat to be righted. Inflatables (once inflated) are too bulky and limiting for this.
  - Type I and II life jackets are similar to inflatables in that mobility is significantly restricted and are ill advised if using a boat that is prone to capsize.
  - Ensure all zippers, seams and buckles are operational before every trip.

Assessing Performance

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<tbody>
<tr>
<td>3</td>
<td>The operator:</td>
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<tr>
<td>Successful Performance</td>
<td>1.2a Selects life jacket appropriate for boat/activity.</td>
</tr>
<tr>
<td></td>
<td>1.2b Ensures life jacket is sized correctly.</td>
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<tr>
<td></td>
<td>1.2c Ensures life jacket is serviceable.</td>
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<td></td>
<td>1.2d Puts on life jacket.</td>
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<td></td>
<td>1.2e Adjusts life jacket to proper fit.</td>
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<tr>
<td>2</td>
<td>The operator:</td>
</tr>
<tr>
<td>Needs Improvement</td>
<td>1.2a Selects life jacket appropriate for boat and activity.</td>
</tr>
<tr>
<td></td>
<td>1.2b Ensures life jacket is sized correctly.</td>
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<tr>
<td></td>
<td>1.2c Ensures life jacket is in good working order, but may miss non-critical flaws (e.g., torn pocket) that do not affect flotation.</td>
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<td></td>
<td>1.2d Puts on life jacket.</td>
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<td></td>
<td>1.2e Adjusts life jacket to fit for effective flotation…. but adjusts too loosely or in a way that may affect ability to swim.</td>
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<tr>
<td>1</td>
<td>Unacceptable (unsuccessful) Performance</td>
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<tr>
<td></td>
<td>The operator:</td>
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<tr>
<td></td>
<td>1.2a Selects a life jacket not appropriate for the boat or activity.</td>
</tr>
<tr>
<td></td>
<td>1.2b Does not ensure life jacket is sized correctly.</td>
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<tr>
<td></td>
<td>1.2c Does not ensure life jacket is serviceable.</td>
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<tr>
<td></td>
<td>1.2d Does not put on life jacket.</td>
</tr>
<tr>
<td></td>
<td>1.2e Does not adjust life jacket for proper fit (e.g. life jacket may slip off, affect breathing, or inhibit swimming).</td>
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</table>
Element # 1.3: The operator will be able to: A: Confirm that all crew and passengers put on their life jackets... B: ensuring the life jackets are appropriate for the boat/activity, sized correctly, serviceable, and adjusted to fit properly.

Understanding the Element

- The operator must be responsible for ensuring the life jackets are used as intended and are successful in keeping persons-in-water afloat, to give them a chance to survive until rescue or self-rescue.
- Non-sailors can often see life jackets as clunky, uncomfortable or ‘not-cool.’ It is important that the operator be persuaded to be a good role model because life jacket use is the single biggest contributor to surviving capsize or person-in-water situations.
- ‘Sized correctly’ means that with adjustments a life jacket fits properly; e.g., doesn’t interfere with breathing or mobility but won’t slip off when simulating flotation pressure by attempting to pull the life jacket over the wearer’s head.
- Adjustments and sizing are partners. No amount of adjustment will make a wrong sized life jacket fit and even the perfect size life jacket will not work if misadjusted.

Designing Instruction

- Choosing, donning, adjusting a life jacket for crew should be done well in advance of departure. This is easy to forget until after the boat has departed. And, if there is a sizing problem, especially, that might require a visit back to the shore for a different life jacket.
- Consider using lubrication on the life jacket zippers periodically in saltwater environments.
- Emphasize to the operator that they are responsible for making sure all persons are wearing life jackets.

Additional Information

- Stay current with changes in life jacket regulations – not just wear and inventory rules, but manufacture rules, especially since the entire life jacket labeling system is being revised.

Assessing Performance

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<tbody>
<tr>
<td>3</td>
<td>The operator:</td>
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<tr>
<td>Successful Performance</td>
<td>1.3a Confirms all others on the boat have chosen a life jacket appropriate for the boat/activity.</td>
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<td></td>
<td>1.3b Confirms life jackets are sized correctly.</td>
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<tr>
<td></td>
<td>1.3c Ensures life jackets are serviceable.</td>
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<tr>
<td></td>
<td>1.3d Confirms all others on boat have put on life jackets.</td>
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<td></td>
<td>1.3e Confirms all others on boat have adjusted life jackets to fit.</td>
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<tr>
<td>2</td>
<td>The operator:</td>
</tr>
<tr>
<td>Needs Improvement</td>
<td>1.3a Does not confirm all others on the boat have chosen life jackets appropriate for the boat/activity.</td>
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<tr>
<td></td>
<td>1.3b Ensure life jackets are sized correctly.</td>
</tr>
<tr>
<td></td>
<td>1.3c Ensures life jackets are in good working order, but may miss non-critical flaws (e.g., torn pockets) that do not affect flotation.</td>
</tr>
<tr>
<td></td>
<td>1.3d Confirms that all others on boat have put on life jackets.</td>
</tr>
<tr>
<td></td>
<td>1.3e Confirms that all others on boat have adjusted life jackets to fit, but one or more may be adjusted too loosely or in a way that may affect ability to swim.</td>
</tr>
</tbody>
</table>
| 1 Unacceptable (unsuccessful) Performance | The operator:
1.3a Does not confirm all others on boat have chosen an appropriate life jacket.
1.3b Does not ensure life jackets are sized correctly.
1.3c Does not ensure life jackets are serviceable.
1.3d Does not confirm that all others on boat have put on life jackets.
1.3e Does not confirm that all life jackets are adjusted for proper fit (e.g. one or more life jackets may slip off, affect breathing, or inhibit swimming). |
Element # 1.4: The operator will be able to: A: Board and move about the sailboat… B: maintaining balance while keeping boat reasonably stable (e.g., minimal rocking) and distributing persons/gear appropriately.

Understanding the Element

- Operators need to know how to move about the boat and keep their balance to keep from falling.
- ‘Board’ means the act of moving onto the boat from a dinghy, a dock, a beach, or from the water.
- ‘Moving about the boat’ is all other movement on the boat, whether it is moored or underway.
- ‘Minimal rocking’ means the rolling motion of the boat is small enough that no one loses balance and that gear does not move or fall.

Designing Instruction

- Encourage students to announce when they are boarding a boat so that others already aboard know to hang on or sit down as the boat moves. “Stepping aboard” is a common phrase.
- “One hand for the boat, one for yourself” is a phrase often used to describe the need to hold on while doing work on the boat.
- Work on setting the boat up so it has maximum stability and the ability to perform based on the distribution of weight, both people and gear.

Assessing Performance

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<tr>
<th>Level</th>
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| 3 Successful Performance | The operator:  
1.4a Maintains balance (e.g., no sudden recovery motions) while boarding and moving about the sailboat  
1.4b Keeps boat reasonably stable (e.g., minimal rocking) while boarding and moving about the boat.  
1.4c Distributes all persons/gear appropriately (e.g., boat has minimal list after distribution of persons/gear). |
| 2 Needs Improvement | The operator:  
1.4a Boards and moves about boat but may require sudden recovery motions.  
1.4b Moves or positions body in a way that causes boat to heel slightly.  
1.4c Distributes most persons/gear appropriately (e.g., causes boat to list slightly after distribution of persons/gear). |
| 1 Unacceptable (unsuccessful) Performance | The operator:  
1.4a Loses balance, stumbles or falls while boarding or moving about.  
1.4b Does not board boat, falls in water, or causes boat to rock excessively or capsize while boarding or moving about.  
1.4c Does not keep boat stable while distributing persons/gear (e.g., causes boat to list excessively after distribution of persons/gear). |
**Element # 1.5:** The operator will be able to: **A: Inspect the sailboat…** B: using a pre-departure checklist to confirm a safe platform and verify required equipment is on board.

**Understanding the Element**

Inspection of boat systems and safety equipment reduces the risk of failure, ensures the vessel is legally compliant, and helps the operator locate essential gear, particularly in case of an emergency. Using a written checklist helps avoid missing items during the inspection.

- The skill is the use of a checklist to inspect the boat, not the development of a checklist.
- Using a pre-departure checklist ensures that the boat and crew are prepared for the day and helps to ensure a safe and enjoyable time on the water.
- The checklist provides the opportunity to inspect each item to ensure that it is on board and will function.

**Designing Instruction**

- The school or instructor should have a checklist appropriate to the boat being used and set an example by consistently using the checklist prior to every departure.
- Stress the importance of getting into a routine and that the checklist provides a consistent list of safety equipment.
- Having people on board assist the operator in using the pre-departure checklist can make the process more efficient, as well as enable the operator to give a pre-departure briefing.

**Assessing Performance**

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<tr>
<td><strong>3 Successful</strong></td>
<td>The operator:</td>
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<tr>
<td><strong>Performance</strong></td>
<td>1.5a Completely inspects the sailboat (e.g., hull, rigging, sails, lines, cleats, bilge, etc.).</td>
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<td>1.5b Verifies all required equipment (e.g., certificate number, life jackets, signal devices, etc.).</td>
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<td>1.5c Uses a written or memorized checklist.</td>
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<tr>
<td><strong>2 Needs Improvement</strong></td>
<td>The operator:</td>
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<td></td>
<td>1.5a Partially inspects the sailboat (e.g., hull, rigging, sails, lines, cleats, etc.).</td>
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<td>1.5b Verifies most but not all required equipment (e.g., certificate number, life jackets, signal devices, etc.).</td>
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<tr>
<td></td>
<td>1.5c Uses a written or memorized checklist.</td>
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<tr>
<td><strong>1 Unacceptable</strong></td>
<td>The operator:</td>
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<tr>
<td><strong>(unsuccessful)</strong></td>
<td>1.5a Does not inspect the sailboat.</td>
</tr>
<tr>
<td><strong>Performance</strong></td>
<td>1.5b Verifies a few or none of the required equipment (e.g., certificate number, life jackets, signal devices, etc.).</td>
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<td>1.5c Does not use a written or memorized checklist.</td>
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</table>
**Element # 1.6:** The operator will be able to: **A: Rig sails and lines…**  
**B: following rigging procedures for specific boat, ensuring sail controls are operational, and using proper knots.**

**Understanding the Element**

- Rigging sails and lines are fundamental to the operation of the boat.
- Rigging sails and attaching sail controls correctly demonstrates knowledge and understanding of the boat’s functionality.

**Designing Instruction**

- A dockside hands-on demonstration can create a safe and easy environment for viewing and participating in a demonstration.
- Learning and practicing knots in advance of rigging the boat can be a good preliminary activity. Knots should be taught consistently and practiced often.

**Assessing Performance**

<table>
<thead>
<tr>
<th>Level</th>
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| 3 | The operator:  
1.6a Correctly rigs sail(s).  
1.6b Correctly rigs all lines.  
1.6c Uses all proper knots.  
1.6d Ensures all sail controls (e.g., boom vang, downhaul, outhaul, mainsheet, etc.) are operational.  
1.6e Ensures all equipment (e.g., winches, cleats, etc.) is operational.  
1.6f Achieves an effective sail shape (if appropriate). |
| 2 | The operator:  
1.6a Correctly rigs sail(s) with difficulty  
1.6b Correctly rigs some lines.  
1.6c Uses some proper knots.  
1.6d Ensure some but not all sail controls (e.g., boom vang, downhaul, outhaul, mainsheet, etc.) are operational.  
1.6e Ensures some but not all equipment (e.g., winches, cleats, etc.) is operational.  
1.6f Achieves an adequate sail shape (if appropriate). |
| 1 | The operator:  
1.6a Incorrectly rigs sail(s).  
1.6b Incorrectly rigs lines.  
1.6c Uses improper knots or does not tie knots.  
1.6d Does not check sail controls (e.g., boom vang, downhaul, outhaul, mainsheet, etc.).  
1.6e Does not check equipment (e.g., winches, cleats, etc.).  
1.6f Does not achieve adequate sail shape (e.g., loose outhaul leads to large sail draft; loose halyard or downhaul leads to scallops in luff of sail, etc.) (if appropriate). |
**Element # 1.7:** The operator will be able to:  
**A:** Communicate safety-related information to others on board…  
**B:** briefing passengers and crew prior to departure (e.g., location of safety items, key safety concerns, anticipated weather and water conditions, expected behaviors, rescue procedures, etc.).

### Understanding the Element

- The operator is responsible for the safety of all people on board.  
- Reviewing the location of safety devices and environmental conditions helps ensure that all people on board are prepared for the expected conditions.  
- By communicating the safety items to all aboard, people on board will be better able to aid in an emergency.

### Designing Instruction

- Instructors should consider modeling behavior in terms of providing the initial safety briefing. The students can follow this modeling on subsequent trips.

### Assessing Performance

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</table>
| 3                          | The operator:  
| Successful Performance     | 1.7a Communicates all relevant safety-related information to others on board.            |
| 2                          | The operator:  
| Needs Improvement          | 1.7a Communicates some safety-related information to others on board.                    |
| 1 Unacceptable (unsuccessful) Performance | The operator:  
|                             | 1.7a Does not communicate safety related information to others on board.                |
Element # 1.8: The operator will be able to: **A: Ready the sailboat (and crew if applicable) for departure**...  **B: positioning, the boat properly, using lines/fenders (if applicable), considering wind and current, and communicating departure plan (if applicable).**

**Understanding the Element**

- A safe departure is likely to be more successful with the proper amount of preparation.
- This element emphasizes the relationship of the boat to the existing environmental conditions (i.e. wind, current).
- This element reinforces the importance of communication between the operator and people on board.

**Designing Instruction**

- Students should be encouraged to be sure everything is ready prior to departure. If there are other people aboard, each person must know and understand their role.
- Encourage operators to look “outside the boat” often for increased situational awareness.

**Assessing Performance**

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<tr>
<td><strong>3 Successful Performance</strong></td>
<td>The operator:</td>
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<td></td>
<td>1.8a Positions boat appropriately considering wind and current.</td>
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<td></td>
<td>1.8b Properly uses docklines/fenders (if applicable).</td>
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<td>1.8c Communications comprehensive departure plan (e.g., sequence of events, crew assignments, etc.)</td>
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<tr>
<td><strong>2 Needs Improvement</strong></td>
<td>The operator:</td>
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<tr>
<td></td>
<td>1.8a Positions boat somewhat appropriately considering wind and current.</td>
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<td></td>
<td>1.8b Uses docklines/fenders (if applicable) but sets them up incorrectly.</td>
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<tr>
<td></td>
<td>1.8c Communications departure plan (e.g., sequence of events, crew assignments, etc.) but omits important items.</td>
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<tr>
<td><strong>1 Unacceptable (unsuccessful) Performance</strong></td>
<td>The operator:</td>
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<tr>
<td></td>
<td>1.8a Does not consider wind and current when positioning boat.</td>
</tr>
<tr>
<td></td>
<td>1.8b Does not use docklines/fenders when they should be used.</td>
</tr>
<tr>
<td></td>
<td>1.8c Does not communicate departure plan (e.g., sequence of events, crew assignments, etc.).</td>
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</tbody>
</table>
Operation #2: Leave a departure point (e.g., dock, slip, shoreline, etc.)

**Element # 2.1:** The operator will be able to: **A:** Secure positions of rudder and centerboard (if applicable) … **B:** adjusting centerboard and rudders for departure, ensuring neither comes in contact with the ground or objects in the water.

Understanding the Element

- This element allows the operator to demonstrate understanding of external factors influencing the boat.
- ‘Centerboard’ means any type of movable underwater protrusion that helps the boat sail to windward, including daggerboard, leeboard, swing keel, etc.

Designing Instruction

- Many sailing dinghies have detachable rudder/tiller assemblies. It is important that the pintles are correctly inserted into the gudgeons and that a retaining device (spring clip or tether) is used, so that the rudder will not be lost during capsize.
- Depth of water at the departure point will influence whether or not the centerboard and rudder can be fully lowered before departure. Departing from a beach necessitates wading the boat a reasonable distance from shore prior to lowering centerboard and rudder.
- An understanding of how the rudder affects the direction of travel and the centerboard helps the boat sail to windward might be communicated initially before departure.
- Demonstrate the kick-up action of the centerboard and the rudder (if equipped) while on the beach before launching.

Assessing Performance

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<tbody>
<tr>
<td>3</td>
<td>Successful Performance</td>
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<tr>
<td>2</td>
<td>Needs Improvement</td>
</tr>
<tr>
<td>1</td>
<td>Unacceptable (unsuccessful) Performance</td>
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</table>

- **Level 3 Successful Performance**
  - The operator:
    - 2.1a Secures rudder position correctly so that there is no contact with the ground or objects in the water.
    - 2.1b Secures centerboard position correctly with little to no contact with the ground or objects in the water.

- **Level 2 Needs Improvement**
  - The operator:
    - 2.1a Secures rudder position in a way that results in slight contact with the ground or objects in the water but makes adjustments to correct.
    - 2.1b Secures centerboard position in a way that results in slight contact with the ground or objects in the water but makes adjustments to correct.

- **Level 1 Unacceptable (unsuccessful) Performance**
  - The operator:
    - 2.1a Positions rudder so that it contacts the ground or objects in the water and does not make corrections, which may impede forward motion or cause damage to boat.
    - 2.1b Positions centerboard so that it contacts the ground or objects in the water and does not make corrections, which may impede forward motion or cause damage to boat.
Element # 2.2: The operator will be able to: A: Raise the sails.... B: positioning boat correctly relative to the wind and conditions (e.g., current), using appropriate sail raising techniques, and maintaining control of the boat and sails throughout.

Understanding the Element

- Sails are the primary means of propulsion for the boat. Properly raising or unfurling the sails at the correct time will significantly affect the ability of the operator to control the boat while underway.
- In the absence of current, ‘correctly relative to the wind’ means pointed into the wind with no pressure on the sails.
- When current is a factor, ‘correctly relative to the wind’ may mean starting to raise the sail where the wind pressure on the sail overcomes the force of the current and forces the boat to turn into the wind.
- Appropriate sail raising techniques includes attaching and verifying correct operation of sail controls (e.g., boom vang,outhaul, downhaul. cunningham, traveler, backstay adjuster).
- Maintaining control of the boat means that it does not begin to sail prematurely, heel or capsize.

Designing Instruction

- Factors such as the type of boat, wind direction and strength, and departure point configuration will likely influence when individual sails are raised. A small sailing dinghy with a mainsail and a jib might need one or both sails raised prior to departure. A keelboat with roller furling jib might wait to deploy the jib until after the boat has departed and is sailing on a reach.
- It may be difficult to achieve an effective sail shape until the boat is underway. Adjusting sail controls to fine tune the sail shape is beyond the scope of this entry-level standard, but the operator should at least be able to properly attach and set up the sail controls so that the sail shape is “good enough” and safe (i.e., tight if the wind speed is at the upper end of the target range).

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 3 Successful Performance</td>
<td>The operator: 2.2a Positions boat correctly relative to the wind and conditions. 2.2b Raises sails using appropriate sail raising techniques. 2.2c Achieves an effective sail shape (if appropriate). 2.2d Maintains control of boat and sails throughout the process.</td>
</tr>
<tr>
<td>2 2 Needs Improvement</td>
<td>The operator: 2.2a Positions boat correctly relative to the wind and conditions. 2.2b Raises sails but uses inefficient techniques or trial and error resulting in starts and stops. 2.2c Achieves an adequate sail shape (if appropriate). 2.2d Maintains control of boat and sails throughout most of the process.</td>
</tr>
<tr>
<td>1 1 Unacceptable (unsuccessful) Performance</td>
<td>The operator: 2.2a Does not position boat correctly relative to the wind and conditions. 2.2b Raises sails using inappropriate techniques or does not raise sails. 2.2c Does not achieve adequate sail shape (e.g., loose outhaul leads to large sail draft; loose halyard or downhaul leads to scallops in luff of sail, etc.) (if appropriate) 2.2d Loses control of boat or sails during the process (e.g., boat starts to sail without control).</td>
</tr>
</tbody>
</table>
Element # 2.3: The operator will be able to: A: Get underway and start sailing... B: checking for clear departure, pushing or turning boat in appropriate direction and coordinating sails and tiller adjustments to get boat under control.

Understanding the Element

- ‘Get underway’ means that the boat has left its point of contact with the shore. Once the last dockline is released, or the mooring line is cast off, or the boat is floating in the water near beach with the operator in it, the boat is ‘underway.’ Once the sail begins to draw and provide power to the boat, then the boat is said to be ‘making way.’
- This skill is complete once the boat is making way under control.

Designing Instruction

- The type of departure point (e.g., dock, mooring, beach, etc.) will determine what actions are needed to depart smoothly.
- With a small sailing dinghy, the operator may need to push the boat away from the dock.
- The jib can be backed to windward to help move the bow in the correct direction.
- Simulating tiller movements as related to direction while ashore may help prepare the student for steering the boat.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Successful Performance</td>
</tr>
<tr>
<td>2</td>
<td>Needs Improvement</td>
</tr>
<tr>
<td>1</td>
<td>Unacceptable (unsuccessful) Performance</td>
</tr>
<tr>
<td>3.3a</td>
<td>Performs complete 360-degree scan to confirm a clear path of departure.</td>
</tr>
<tr>
<td>3.3b</td>
<td>Identifies all potential conflicts between intended departure path and other boats/activities in the vicinity.</td>
</tr>
<tr>
<td>3.3c</td>
<td>Pushes or turns boat in appropriate direction.</td>
</tr>
<tr>
<td>3.3d</td>
<td>Coordinates proper sail control, tiller movement, and body movement throughout maneuver.</td>
</tr>
<tr>
<td>3.3e</td>
<td>Gets boat under control right away.</td>
</tr>
<tr>
<td>2.3a</td>
<td>Performs an incomplete scan (less than 360 degrees) of the departure area.</td>
</tr>
<tr>
<td>2.3b</td>
<td>Identifies some but not all potential conflicts between intended departure path and other boats/activities in the vicinity.</td>
</tr>
<tr>
<td>2.3c</td>
<td>Pushes or turns boat in appropriate direction.</td>
</tr>
<tr>
<td>2.3d</td>
<td>Uses proper sail control, tiller movement, and body movement, but lacks full coordination.</td>
</tr>
<tr>
<td>2.3e</td>
<td>Gets boat under control after slight delay.</td>
</tr>
<tr>
<td>1.3a</td>
<td>Does not scan the departure area.</td>
</tr>
<tr>
<td>1.3b</td>
<td>Does not identify potential conflicts between intended departure path and other boats/activities in the vicinity.</td>
</tr>
<tr>
<td>1.3c</td>
<td>Does not push or turn boat in appropriate direction.</td>
</tr>
<tr>
<td>1.3d</td>
<td>Does not properly coordinate sails, tiller movement or body movement.</td>
</tr>
<tr>
<td>1.3e</td>
<td>Does not get boat under control or takes so long that risk of collision is possible.</td>
</tr>
</tbody>
</table>
Operation #3: Maneuver in close quarters

Element # 3.1: The operator will be able to: A: Turn the sailboat in a 360-degree circle... B: using proper tiller, sail, and weight positioning, and turning within a distance of four boat lengths.

Understanding the Element

- This maneuver can be useful in a close quarters situation; e.g., to help avoid collisions.
- The skill in this element is foundational to many other maneuvers, including man overboard.
- Improper turning creates several hazards to crew, boat and sails.
- This element requires smoothly and promptly passing through all four turning maneuvers (heading up, bearing away, tacking and jibing) and all points of sail (close haul, close reach, beam reach, run) on both tacks (port and starboard).
- During tacking and jibing, crew weight should be shifted appropriately.

Designing Instruction

- Safety for this element includes awareness of the boom during jibing (boom crossing centerline) and tacking (luffing sail).
- Sail trim will be dynamic through the entire maneuver to keep sails driving the boat to provide it speed and control: Sails trimmed in as the boat heads up and sails eased out as the boat bears away.
- During jibing, sails should be controlled according to the specific boat (e.g., for a J24, trim mainsail to centerline before jibe, then ease quickly after wind gets on other side of mainsail; for a sailing dinghy, leave the mainsail eased during the maneuver, particularly in lighter winds).
- Anticipate that a student might be confused by how to use a tiller and have drills ready to help them develop the skill.
- Before practicing this maneuver, ensure there is a sufficient area clear of traffic.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Successful Performance</td>
</tr>
<tr>
<td></td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>3.1a Turns boat through one tack and one jibe and returns to initial point of sail.</td>
</tr>
<tr>
<td></td>
<td>3.1b Completes circle within a distance of four boat lengths.</td>
</tr>
<tr>
<td></td>
<td>3.1c Consistently uses tiller properly to turn boat.</td>
</tr>
<tr>
<td></td>
<td>3.1d Consistently adjusts sails to proper trim.</td>
</tr>
<tr>
<td></td>
<td>3.1e Consistently positions body weight properly.</td>
</tr>
<tr>
<td>2</td>
<td>Needs Improvement</td>
</tr>
<tr>
<td></td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>3.1a Turns boat through one tack and one jibe but does not return to the initial point of sail.</td>
</tr>
<tr>
<td></td>
<td>3.1b Completes the circle within a distance of six boat lengths.</td>
</tr>
<tr>
<td></td>
<td>3.1c Inconsistently uses tiller properly to turn boat.</td>
</tr>
<tr>
<td></td>
<td>3.1d Inconsistently adjusts sails to proper trim.</td>
</tr>
<tr>
<td></td>
<td>3.1e Inconsistently positions body weight.</td>
</tr>
<tr>
<td>1</td>
<td>Unacceptable (unsuccessful) Performance</td>
</tr>
<tr>
<td></td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>3.1a Does not complete a full circle turn.</td>
</tr>
<tr>
<td></td>
<td>3.1b Does not complete the turn within six boat lengths.</td>
</tr>
<tr>
<td></td>
<td>3.1c Does not use tiller properly.</td>
</tr>
<tr>
<td></td>
<td>3.1d Does not adjust sails to correct trim.</td>
</tr>
<tr>
<td></td>
<td>3.1e Does not adjust body weight.</td>
</tr>
</tbody>
</table>
Element # 3.2: The operator will be able to: **A: Turn the sailboat out of a head-to-wind position (i.e., get out of irons)** … **B: getting boat sailing again on intended tack, properly adjusting sails and tiller.**

Understanding the Element

- ‘In irons’ is also called ‘in stays’ and the boat is positioned head-to-wind with the sails luffing. Sometimes the boat will be moving backwards. It is important to be able to get out of this position in which the boat is not under control.
- Getting out of irons onto an intended tack may be critical to avoid an obstruction.
- The mainsail and boom may be shaking excessively, which creates a hazard.
- Turning the boat out of irons may require backing the sail(s) to the wind to pivot the boat. The tiller can is used to complete the process. The tiller can also influence boat orientation if the boat is moving backwards while in irons.

Designing Instruction

- The jib (if available) is primary tool for getting the boat out of irons and onto the intended tack. Using the mainsail to help may be possible with smaller boats in lighter winds.
- Students may need a mnemonic device for remembering how to trim the jib to begin to escape from irons on the intended tack.
- An integral part of maneuver is to place tiller in proper position just as the boat escapes from irons so that the tiller position doesn’t begin to fight the maneuver.
- If, in this maneuver, boat develops sternway, care must be taken to control tiller from the excessive force of the water on the rudder.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Successful Performance</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>3.2a Turns boat away from wind and gets sailing again on intended tack on first attempt*</td>
</tr>
<tr>
<td></td>
<td>3.2b Properly adjusts sails.</td>
</tr>
<tr>
<td></td>
<td>3.2c Properly adjusts tiller.</td>
</tr>
<tr>
<td></td>
<td>3.2d Uses tiller and sail(s) in a coordinated motion.</td>
</tr>
<tr>
<td>2 Needs Improvement</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>3.2a Turns boat away from wind and gets sailing again on intended tack.</td>
</tr>
<tr>
<td></td>
<td>3.2b Properly adjusts sails.</td>
</tr>
<tr>
<td></td>
<td>3.2c Properly adjusts tiller.</td>
</tr>
<tr>
<td></td>
<td>3.2d Uses tiller and sail(s) in a coordinated motion but not well timed for the maneuver.</td>
</tr>
<tr>
<td>1 Unacceptable (unsuccessful) Performance</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>3.2a Does not turn boat away from the wind (i.e., remains in irons), or gets sailing again on unintended tack, or takes more than 2 attempts to get sailing again.</td>
</tr>
<tr>
<td></td>
<td>3.2b Does not properly adjust sails.</td>
</tr>
<tr>
<td></td>
<td>3.2c Does not properly adjust tiller.</td>
</tr>
<tr>
<td></td>
<td>3.2d Does not use tiller and sail(s) in a coordinated motion.</td>
</tr>
</tbody>
</table>
Operation #4: Operate in open water

Element # 4.1: The operator will be able to: A: **Steer the sailboat in a straight line (hold a steady course)** ... B: using sail trim and tiller and adjusting the boat’s heading for changes in the wind (speed or direction) to maintain course within +/- 10 degrees for 10 boat lengths.

Understanding the Element

- The ability to steer in a straight line will often indicate a higher level of skill in that the operator can operate the boat without distractions.
- The performance of this skill indicates awareness of wind and surroundings and their impact on the boat.
- 10 boat lengths can be considered a minimum distance to judge an operator’s ability to steer in a straight line while being affected by any wind conditions or surroundings.

Designing Instruction

- When initially assessing this skill, it may be advantageous to have the operator sail on a reach rather than close-hauled or on a run.
- The student could be encouraged to pick a point on shore to steer toward, rather than looking at the compass or wind indicators.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Successful Performance</td>
</tr>
<tr>
<td></td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.1a Steers straight within +/- 10 degrees.</td>
</tr>
<tr>
<td></td>
<td>4.1b Uses effective sail trim to maintain steady course.</td>
</tr>
<tr>
<td></td>
<td>4.1c Uses minimal tiller movement to maintain steady course.</td>
</tr>
<tr>
<td></td>
<td>4.1d Consistently adjusts boat’s heading to accommodate changes in wind speed and wind direction.</td>
</tr>
<tr>
<td></td>
<td>4.1e Maintains course for 10 boat lengths.</td>
</tr>
<tr>
<td>2</td>
<td>Needs Improvement</td>
</tr>
<tr>
<td></td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.1a Steers straight within +/- 20 degrees.</td>
</tr>
<tr>
<td></td>
<td>4.1b Uses sail trim to maintain steady course.</td>
</tr>
<tr>
<td></td>
<td>4.1c Moves tiller more than necessary to maintain steady course.</td>
</tr>
<tr>
<td></td>
<td>4.1d Inconsistently adjusts boat’s heading to accommodate changes in wind speed and wind direction.</td>
</tr>
<tr>
<td></td>
<td>4.1e Maintains course for between 5 and 10 boat lengths.</td>
</tr>
<tr>
<td>1</td>
<td>Unacceptable (unsuccessful) Performance</td>
</tr>
<tr>
<td></td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.1a Does not steer straight within +/- 20 degrees.</td>
</tr>
<tr>
<td></td>
<td>4.1b Does not use sail trim to maintain steady course.</td>
</tr>
<tr>
<td></td>
<td>4.1c Moves tiller excessively.</td>
</tr>
<tr>
<td></td>
<td>4.1d Does not adjusts boat’s heading to accommodate changes in wind speed and wind direction.</td>
</tr>
<tr>
<td></td>
<td>4.1e Maintains course for less than 5 boat lengths.</td>
</tr>
</tbody>
</table>
Element # 4.2: The operator will be able to: **A:** Place the sailboat in the safety position (or heave to if applicable for boats with two sails) and then resume sailing on a specific tack… **B:** using proper control of sails and tiller.

Understanding the Element

- The generally accepted definition of ‘safety position’ is a boat on a close reach with all sails eased out and catching no wind.
- The generally accepted definition of ‘hove-to’ is a boat with the jib backed to windward, tiller (helm) fully to leeward and mainsail either eased out fully or trimmed just enough to obtain a balance of power needed to keep the boat heading in an appropriate direction.
- The ability to get into the safety position or heave-to is important for an operator to know in the event of a needed repair, safety concern or just to safely slow the boat for whatever reason.
- The ability to resume sailing on a specific tack after stopping, indicates an operator’s control over the boat.
- The sailboat will not be stopped, but rather will be sailing very slowly while the sails are still raised.

Designing Instruction

- ‘Safety position’ should be taught fairly early in the progression so that it can be used if needed later during the course of instruction.
- Heaving-to can be taught after the student learns how to tack, since it is easy to heave to by going through the wind and leaving the existing jib sheet in place.
- When teaching heave-to, it may help to work from forward to aft (i.e., jib backed, mainsail eased, tiller to leeward). The same applies to getting out of the hove-to position: Bring jib across, trim mainsail, and bring helm to center.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Successful Performance</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.2a Places boat in the safety position (heaves to if applicable).</td>
</tr>
<tr>
<td></td>
<td>4.2b Adjusts sails as needed to resume sailing on prescribed tack.</td>
</tr>
<tr>
<td></td>
<td>4.2c Properly adjusts tiller.</td>
</tr>
<tr>
<td>2 Needs Improvement</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.2a Places boat in the safety position (heaves to if applicable).</td>
</tr>
<tr>
<td></td>
<td>4.2b Inconsistently adjusts sails to resume sailing on prescribed tack.</td>
</tr>
<tr>
<td></td>
<td>4.2c Does not coordinate sail adjustments with tiller movement.</td>
</tr>
<tr>
<td>1 Unacceptable (unsuccessful) Performance</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.2a Does not place boat in the safety position (does not heave to if applicable).</td>
</tr>
<tr>
<td></td>
<td>4.2b Does not adjust sails to resume sailing on prescribed tack.</td>
</tr>
<tr>
<td></td>
<td>4.2c Does not use tiller movement properly.</td>
</tr>
</tbody>
</table>
Element # 4.3: The operator will be able to: A: Turn the sailboat away from the wind… B: adjusting sails and tiller, and communicating to crew if appropriate.

Understanding the Element

- Bearing away and heading up are the two most often used maneuvers for changing direction.
- Operators need to be able to steer in all directions relative to the wind.

Designing Instruction

- Tiller movements and sail adjustments should be coordinated for smooth motion of the turning boat.
- The operator’s command to the crew may be: “Bearing away” or “Bearing off” or “Heading down,” etc. The crew’s response is to simply ease the sheet they are operating, or they may repeat the command to verify it was heard.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3 Successful Performance</strong></td>
<td>The operator: 4.3a Turns the boat away from the wind. 4.3b Eases sails in coordination with turn. 4.3c Adjusts tiller in a smooth continuous motion. 4.3d Communicates properly to crew if appropriate.</td>
</tr>
<tr>
<td><strong>2 Needs Improvement</strong></td>
<td>The operator: 4.3a Turns the boat away from the wind. 4.3b Eases sails too little or too much. 4.3c Adjusts tiller inconsistently. 4.3d Uses some communication if appropriate.</td>
</tr>
<tr>
<td><strong>1 Unacceptable (unsuccessful) Performance</strong></td>
<td>The operator: 4.3a Does not turn the boat away from the wind. 4.3b Pulls sails in or does not ease sails. 4.3c Adjusts tiller erratically or does not adjust tiller. 4.3d Communicates poorly or does not give commands.</td>
</tr>
</tbody>
</table>
Element # 4.4: The operator will be able to: A: Turn the sailboat toward the wind… B: adjusting sails and tiller, and communicating to crew if appropriate.

Understanding the Element

- Bearing away and heading up are the two most often used maneuvers for changing direction.
- Operators need to be able to steer in all directions relative to the wind.

Designing Instruction

- Tiller movements and sail adjustments should be coordinated for smooth motion of the turning boat.
- The operator’s command to the crew may be: “Heading up” or “Turning up,” etc. The crew’s response is to simply trim in the sheet they are operating, or they may repeat the command to verify it was heard.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.4a Turns boat toward the wind.</td>
</tr>
<tr>
<td></td>
<td>4.4b Pulls sails in smoothly in coordination with turn.</td>
</tr>
<tr>
<td></td>
<td>4.4c Adjusts tiller in a smooth, continuous motion.</td>
</tr>
<tr>
<td></td>
<td>4.4d Communicates properly to crew if appropriate.</td>
</tr>
<tr>
<td>2</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.4a Turns boat toward the wind.</td>
</tr>
<tr>
<td></td>
<td>4.4b Pulls sails in too little or too much.</td>
</tr>
<tr>
<td></td>
<td>4.4c Adjusts tiller inconsistently.</td>
</tr>
<tr>
<td></td>
<td>4.4d Uses some communication if appropriate.</td>
</tr>
<tr>
<td>1</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.4a Does not turn boat toward the wind.</td>
</tr>
<tr>
<td></td>
<td>4.4b Eases sails, or does not pull sails in.</td>
</tr>
<tr>
<td></td>
<td>4.4c Adjusts tiller erratically, or does not adjust tiller.</td>
</tr>
<tr>
<td></td>
<td>4.4d Communicates poorly or does not give commands.</td>
</tr>
</tbody>
</table>
Element # 4.5: The operator will be able to: A: Slow and then accelerate the sailboat maintaining constant heading…  B: adjusting sails and tiller.

Understanding the Element

• This is a basic maneuver that is used in more complex actions such as returning to a dock or coming up to a man overboard.
• The ability to control the boat in this fashion indicates proficiency on the operator’s part in terms of controlling boat speed using only the sails.
• The goal is to control the boat at variable speeds and demonstrate understanding of the relationship between the sail trim and the boat power.

Designing Instruction

• This skill must be performed while going upwind (close haul or close reach) and is easiest to perform on a close reach, which is also the point of sail used when coming up to a man overboard.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Successful Performance</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.5a Slows boat down then accelerates boat.</td>
</tr>
<tr>
<td></td>
<td>4.5b Maintains a constant heading.</td>
</tr>
<tr>
<td></td>
<td>4.5c Consistently adjusts sails effectively, coordinating with tiller movement.</td>
</tr>
<tr>
<td></td>
<td>4.5d Adjusts tiller in a smooth continuous motion.</td>
</tr>
<tr>
<td>2 Needs Improvement</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.5a Slows boat down then accelerates boat.</td>
</tr>
<tr>
<td></td>
<td>4.5b Causes boat to go In a slightly different heading but makes course correction.</td>
</tr>
<tr>
<td></td>
<td>4.5c Inconsistently adjusts sails.</td>
</tr>
<tr>
<td></td>
<td>4.5d Does not coordinate tiller movement with sail adjustments.</td>
</tr>
<tr>
<td>1 Unacceptable (unsuccessful) Performance</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.5a Does not slow and then accelerate boat.</td>
</tr>
<tr>
<td></td>
<td>4.5b Causes boat to go in different heading than planned without course correction.</td>
</tr>
<tr>
<td></td>
<td>4.5c Does not adjust sails to control boat speed.</td>
</tr>
<tr>
<td></td>
<td>4.5d Does not adjust tiller to maintain heading.</td>
</tr>
</tbody>
</table>
**Element # 4.6:** The operator will be able to: **A: Tack the sailboat…** B: using proper sail control, tiller movement, and body movement; and communicating to crew (e.g., 2-part command), if appropriate.

**Understanding the Element**

- Operators must tack the boat in order to make progress to an upwind location.
- 2-part communication refers to before and during the maneuver. Appropriate commands may include: “Ready About” (“Ready”) “Helm’s-a-Lee,” or “Ready to Tack” (“Ready”) “Tacking,” etc.

**Designing Instruction**

- Recommend tacking from an upwind point of sail to the mirror opposite point of sail; i.e., close haul to close haul or close reach to close reach. More practice can lead to more efficient upwind sailing.
- Ensure the student is making a clear action to initiate the tack and end the tack rather than drifting upwind until the tack occurs on its own.
- Consider including a discussion on the “preferred” tack toward an upwind destination as well as when to tack / how many tacks to make to get upwind in a given situation.

**Assessing Performance**

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Successful Performance</td>
<td>The operator: 4.6a Tacks boat from an upwind point of sail on one tack to an upwind point of sail on the other tack (close haul or close reach) and visa-versa. 4.6b Coordinates proper sail control, tiller movement, and body movement throughout maneuver. 4.6c Communicates properly to crew if appropriate (e.g., uses 2-part command, during both tacks).</td>
</tr>
<tr>
<td>2 Needs Improvement</td>
<td>The operator: 4.6a Completes tack but does not start from an upwind point of sail (close haul or close reach) or finish on an upwind point-of sail, or completes tack from tack to the other in only one direction (i.e., tacks from port to starboard tack or tacks from starboard to port tack, but not both). 4.6b Utilizes proper sail control, tiller movement, and body movement, but lacks full coordination. 4.6c Uses some communication if appropriate (e.g., uses only one part of 2-part command, or communicates only during one of the tacks).</td>
</tr>
<tr>
<td>1 Unacceptable (unsuccessful) Performance</td>
<td>The operator: 4.6a Does not complete the tack, or significantly over steers to downwind point of sail upon completion of tack. 4.6b Does not properly control sails, tiller movement or body movement. 4.6c Communicates poorly or does not give commands.</td>
</tr>
</tbody>
</table>
**Element # 4.7:** The operator will be able to: **A: Sail the boat upwind (i.e., close-hauled or on a shallow close reach)**... **B: using proper sail trim and tiller control.**

**Understanding the Element**

- Operators need to be able to steer in all directions relative to the wind.
- Ability to place the boat on these points of sail with proper sail trim, indicates an understanding of the boat’s position relative to the wind.
- ‘Shallow close reach’ means the part of the 45-degree close reach angle that is closer to the wind. A shallow close reach is considered to be nearly close-hauled. In other words, if the boat sails close-hauled with the wind at 45-degrees to the boat’s centerline, then a shallow close reach might be putting the wind at between 46-55 degrees to the centerline.

**Designing Instruction**

- Wind awareness is key here. Encourage students to feel the wind on their face and ears as the primary means to determine apparent wind direction. This can be backed up by visual indicators such as a masthead fly or shroud-affixed telltales.
- The jib telltales can be used to help adjust the sails properly as well as steer an efficient upwind course.

**Assessing Performance**

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
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<tbody>
<tr>
<td><strong>3 Successful Performance</strong></td>
<td>The operator: 4.7a Sails the boat upwind <em>(i.e., close-hauled or on a shallow close reach)</em>. 4.7b Consistently trims sails properly. 4.7c Moves tiller just enough to maintain upwind direction of the boat. 4.7d Avoids unintentional tack or jibe.</td>
</tr>
<tr>
<td><strong>2 Needs Improvement</strong></td>
<td>The operator: 4.7a Steers boat approximately upwind <em>(i.e., close-hauled or shallow close reach), but tends to pinch into no-sail zone</em>, or sail too far off the wind to efficiently achieve an upwind destination. 4.7b Inconsistently trims sails properly. 4.7c Moves tiller inconsistently or oversteers but maintains upwind direction of the boat. 4.7d Avoids unintentional tack or jibe.</td>
</tr>
<tr>
<td><strong>1 Unacceptable (unsuccessful) Performance</strong></td>
<td>The operator: 4.7a Does not steer boat upwind <em>(i.e., close-hauled or shallow close reach)</em>. 4.7b Does not trim sails properly. 4.7c Moves tiller in wrong direction or excessively. 4.7d Unintentionally tacks or jibes.</td>
</tr>
</tbody>
</table>
**Element # 4.8:** The operator will be able to: **A: Sail the boat on a reach (across the wind; i.e., deep close reach, beam reach or shallow broad reach)**... **B: using proper sail trim and tiller control.**

**Understanding the Element**

- Operators need to be able to steer in all directions relative to the wind.
- Ability to place the boat on these points of sail with proper sail trim, indicates an understanding of the boats position relative to the wind.
- ‘Deep close reach’ means the part of the 45-degree close reach angle that is closer to a beam reach. A deep close reach is considered to be nearly beam reaching. In other words, if the boat sails a beam reach with the wind at 90-degrees to the boat’s centerline, then a deep close reach might be putting the wind at between 80-89 degrees to the centerline.
- ‘Shallow broad reach’ means the part of the 90-degree broad reach angle that is closer to a beam reach. A shallow broad reach is considered to be nearly beam reaching. In other words, if the boat sails a beam reach with the wind at 90-degrees to the boat’s centerline, then a shallow broad reach might be putting the wind at between 91-100 degrees to the centerline.
- A beam reach is an important point of sail to learn, since it is typically the fastest point of sail and is used as the first point of sail when carrying out a Figure-8 man overboard maneuver.

**Designing Instruction**

- Wind awareness is key here. Encourage students to feel the wind on their face and ears as the primary means to determine apparent wind direction. This can be backed up by visual indicators such as a masthead fly or shroud-affixed telltales. Waves coming parallel to the boat can also be a good visual indicator of a beam reach.

**Assessing Performance**

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
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<tbody>
<tr>
<td>3 Successful Performance</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.8a Sails the boat on a reach (across the wind; i.e., deep close reach, beam reach or shallow broad reach).</td>
</tr>
<tr>
<td></td>
<td>4.8b Consistently trims sails properly.</td>
</tr>
<tr>
<td></td>
<td>4.8c Moves tiller just enough to maintain sailing on a reach.</td>
</tr>
<tr>
<td></td>
<td>4.8d Avoids unintentional tack or jibe.</td>
</tr>
<tr>
<td>2 Needs Improvement</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.8a Steers boat approximately on a reach (across the wind; i.e., close reach, beam reach or broad reach).</td>
</tr>
<tr>
<td></td>
<td>4.8b Inconsistently trims sails properly.</td>
</tr>
<tr>
<td></td>
<td>4.8c Moves tiller inconsistently or oversteers but maintains boat sailing on a reach.</td>
</tr>
<tr>
<td></td>
<td>4.8d Avoids unintentional tack or jibe.</td>
</tr>
<tr>
<td>1 Unacceptable (unsuccessful) Performance</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.8a Does not steer boat on a reach (across the wind; i.e., deep close reach, beam reach or shallow broad reach).</td>
</tr>
<tr>
<td></td>
<td>4.8b Does not trim sails properly.</td>
</tr>
<tr>
<td></td>
<td>4.8c Moves tiller in wrong direction or excessively.</td>
</tr>
<tr>
<td></td>
<td>4.8d Unintentionally tacks or jibes.</td>
</tr>
</tbody>
</table>
**Element # 4.9:** The operator will be able to: **A: Sail the boat downwind (i.e., on a deep broad reach or run)...**

B: using proper sail trim and tiller control.

**Understanding the Element**

- Operators need to be able to steer in all directions relative to the wind.
- Ability to place the boat on these points of sail with proper sail trim, indicates an understanding of the boats position relative to the wind.
- ‘Deep broad reach’ means the part of the 90-degree broad reach angle that is closer to a run. A deep broad reach is considered to be nearly running. In other words, if the boat sails a run with the wind directly astern, then a deep broad reach would be a few degrees upwind of dead astern.

**Designing Instruction**

- Wind awareness is key here. Encourage students to feel the wind on their face and ears as the primary means to determine apparent wind direction. This can be backed up by visual indicators such as a masthead fly or shroud-affixed telltales.
- For a boat with two sails, the jib is typically collapsed once the boat is on a deep broad reach. One option is to bring the jib over and sail “wing-on-wing.”
- Beware the risk of an accidental jibe.
- This may be a good opportunity to explain what is meant by “sailing-by-the-lee,” defined as sailing downwind with the wind on the same side of the boat as the mainsail. The risk of an accidental jibe increases when sailing by the lee. More advanced students might benefit from learning about a “jibe preventer line,” particularly on a keelboat.

**Assessing Performance**

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
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<tbody>
<tr>
<td><img src="3" alt="3" /> Successful Performance</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.9a Sails the boat downwind (i.e., on a deep broad reach or run).</td>
</tr>
<tr>
<td></td>
<td>4.9b Consistently trims sails properly.</td>
</tr>
<tr>
<td></td>
<td>4.9c Moves tiller just enough to maintain sailing downwind.</td>
</tr>
<tr>
<td></td>
<td>4.9d Avoids unintentional tack or jibe.</td>
</tr>
<tr>
<td><img src="2" alt="2" /> Needs Improvement</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.9a Steers boat approximately downwind (i.e., deep broad reach or run), but tends to head up to a shallow broad reach, or sails by-the-lee.</td>
</tr>
<tr>
<td></td>
<td>4.9b Inconsistently trims sails properly.</td>
</tr>
<tr>
<td></td>
<td>4.9c Moves tiller inconsistently or oversteers but maintains downwind direction of the boat.</td>
</tr>
<tr>
<td></td>
<td>4.9d Avoids unintentional tack or jibe.</td>
</tr>
<tr>
<td><img src="1" alt="1" /> Unacceptable (unsuccessful) Performance</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>4.9a Does not steer boat downwind (i.e., deep broad reach or run).</td>
</tr>
<tr>
<td></td>
<td>4.9b Does not trim sails properly.</td>
</tr>
<tr>
<td></td>
<td>4.9c Moves tiller in wrong direction or excessively.</td>
</tr>
<tr>
<td></td>
<td>4.9d Unintentionally tacks or jibes.</td>
</tr>
</tbody>
</table>
Element # 4.10: The operator will be able to: A: Sail directly downwind… B: avoiding an unintentional jibe for 10 boat lengths.

Understanding the Element

- The operator demonstrates an awareness of wind direction and shifts while going dead downwind.
- Accidental jibes can be dangerous and it is important that operators know how to properly sail downwind while avoiding them.
- Demonstrates the effect of the wind pushing on the sails rather that the lift that is generated when going upwind.
- 10 boat lengths is enough distance to demonstrate that the operator is capable of responding to varying winds and conditions.

Designing Instruction

- Before starting this skill, it is beneficial to discuss the early signs of a jibe (known as jibe indicators) and the importance of being prepared to stay low in the event a jibe does occur. Example jibe indicators include: jib collapsing, boom lifting up, etc.
- For a boat with two sails, the jib is typically collapsed once the boat is running downwind. One option is to bring the jib over and sail “wing-on-wing.”
- This may be a good opportunity to explain what is meant by “sailing by the lee,” defined as sailing downwind with the wind on the same side of the boat as the mainsail. Of course the risk of an accidental jibe increases when sailing by the lee. More advanced students might benefit from learning about a “jibe preventer line,” particularly on a keelboat.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
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<tbody>
<tr>
<td><strong>3 Successful</strong></td>
<td><strong>Performance</strong></td>
</tr>
<tr>
<td>4.10a Sails boat directly downwind for 10 boat lengths.</td>
<td></td>
</tr>
<tr>
<td>4.10b Identifies imminent jibe indicators (e.g. jib collapsing, boom lifting, sailing by the lee).</td>
<td></td>
</tr>
<tr>
<td>4.10c Proactively avoids unintentional jibe (e.g., anticipates changes in wind direction, etc.).</td>
<td></td>
</tr>
<tr>
<td><strong>2 Needs Improvement</strong></td>
<td>The operator:</td>
</tr>
<tr>
<td>4.10a Sails boat directly downwind for 5 to 10 boat lengths.</td>
<td></td>
</tr>
<tr>
<td>4.10b Does not identify imminent jibe indicators (e.g. jib collapsing, boom lifting, sailing by the lee).</td>
<td></td>
</tr>
<tr>
<td>4.10c Reactively avoids (e.g., head up slightly, adjust course to accommodate change in wind direction, etc.) to avoid unintentional jibe (moves tiller suddenly to keep boom from crossing over, etc.).</td>
<td></td>
</tr>
<tr>
<td><strong>1 Unacceptable</strong></td>
<td><strong>Performance</strong></td>
</tr>
<tr>
<td>4.10a Does not sail directly downwind.</td>
<td></td>
</tr>
<tr>
<td>4.10b Does not identify imminent jibe indicators (e.g. jib collapsing, boom lifting, sailing by the lee).</td>
<td></td>
</tr>
<tr>
<td>4.10c Unintentionally jibes.</td>
<td></td>
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</tbody>
</table>
**Element # 4.11:** The operator will be able to: A: **Jibe the sailboat**… B: using proper sail control, tiller movement, and body movement; and communicating to crew (e.g., 2-part command), if appropriate.

**Understanding the Element**

- Operators need to be able to jibe the boat in order to change directions while going downwind.
- Jibing from a board reach to broad reach is oftentimes more efficient (velocity made good, or VMG, is higher) when making progress toward a downwind location, since a broad reach is usually a faster point of sail than a run.
- 2-part communication refers to before and during the maneuver. Appropriate commands may include: “Prepare to Jibe” (“Ready”), “Jibe-Ho,” or “Ready to Jibe” (“Ready”), “Jibing,” etc.

**Designing Instruction**

- Recommend jibing from a broad reach to the opposite broad reach. More practice can lead to more efficient downwind sailing, and will reduce the tendency to head up too much after the jibe is complete.
- Ensure the student is making a clear action to initiate the jibe and end the jibe rather than having the boat slowly turning on its own and possibly accidentally jibing.

**Assessing Performance**

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
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</table>
| **3 Successful Performance** | The operator:  
4.11a Jibes boat from a downwind point of sail (broad reach or run) on one tack to a downwind point of sail on the opposite tack, and vice versa.  
4.11b Coordinates proper sail control, tiller movement, body movement throughout maneuver.  
4.11c Communicates properly to crew if appropriate (e.g., uses 2-part command, during both jibes). |
| **2 Needs Improvement** | The operator:  
4.11a Completes jibe but does not start from a broad reach or finish on a broad reach, or completes jibe from one tack to the other in only one direction (i.e., jibes from port tack to starboard tack or from starboard tack to port tack, but not both).  
4.11b Utilizes proper sail control and body movement, but turns too fast or too slowly, or lacks full coordination.  
4.11c Uses some communication if appropriate (e.g., uses only one part of 2-part command, or communicates only during one of the jibes). |
| **1 Unacceptable (unsuccessful) Performance** | The operator:  
4.11a Does not complete jibe.  
4.11b Does not properly coordinate or control sails (e.g., mainsail slams across boat), tiller movement (e.g., significantly over steers to upwind point of sail) or body movement (e.g., boat heels too far).  
4.11c Communicates poorly or does not give commands. |
Operation #5: Arrive at a destination (e.g., dock, slip, shoreline, etc.) making first contact

Element # 5.1: The operator will be able to: A: Ready the sailboat for arrival... B: using appropriate boat position relative to arrival point (e.g., dock, mooring, shoreline, etc.), sail configurations, and lines/fenders (if applicable), taking wind and current into consideration.

Understanding the Element

- Planning a controlled, smooth landing without damaging the boat requires knowing wind direction, understanding how far the boat will coast, assessing suitable room for the maneuver and appropriate steering, mooring line and sail handling.
- Getting everything ready ahead of time will reduce stress and help to make the landing more successful.

Designing Instruction

- Different wind directions and landing configurations will determine the method(s) best suited for arrival at a specific location. Lowering or furling all but one sail prior to coming in may be appropriate.
- An upwind approach is usually preferred, so that the boat will stop more readily.
- Pointing out the similarity to a MOB pickup can be helpful.
- Asking the operator to explain the plan of approach in advance as the docking situation approaches can be very helpful.
- Have the operator explain, in advance, a plan to “go around again” if the first attempt fails.

Assessing Performance

<table>
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<tr>
<th>Level</th>
<th>Proficiency Description</th>
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<tbody>
<tr>
<td>3 Successful</td>
<td>The operator:</td>
</tr>
<tr>
<td>Performance</td>
<td>5.1a Positions boat appropriately for arrival, considering wind and current.</td>
</tr>
<tr>
<td></td>
<td>5.1b Configures sails appropriately for arrival, considering wind and current.</td>
</tr>
<tr>
<td></td>
<td>5.1c Properly uses docklines/fenders (if applicable).</td>
</tr>
<tr>
<td>2 Needs Improvement</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>5.1a Positions boat for arrival but not optimally for wind and current.</td>
</tr>
<tr>
<td></td>
<td>5.1b Configures sails for arrival but not optimally for wind and current.</td>
</tr>
<tr>
<td></td>
<td>5.1c Uses docklines/fenders (if applicable) but sets them up incorrectly.</td>
</tr>
<tr>
<td>1 Unacceptable</td>
<td>The operator:</td>
</tr>
<tr>
<td>(unsuccessful)</td>
<td>5.1a Does not position boat appropriately for arrival.</td>
</tr>
<tr>
<td>Performance</td>
<td>5.1b Does not configure sails appropriately for arrival.</td>
</tr>
<tr>
<td></td>
<td>5.1c Does not use docklines/fenders when they should be used.</td>
</tr>
</tbody>
</table>
**Element # 5.2:** The operator will be able to:  
A: Secure positions of rudder and centerboard (if applicable) …  
B: adjusting centerboard and rudder for arrival, ensuring neither comes in contact with the ground or objects in the water.

**Understanding the Element**

- This element allows the operator to demonstrate understanding of external factors influencing the boat.  
- ‘Centerboard’ means any type of movable underwater protrusion that helps the boat sail to windward, including daggerboard, leeboard, swing keel, etc.  
- To ensure a safe, damage free, landing on a beach, the centerboard and rudder need to be removed or raised prior to landing.  
- After depowering, and before grounding the centerboard or daggerboard should be raised completely and the rudder kick up mechanism (usually a lanyard or a pin) released.  
- This skill is very boat-specific and will vary widely depending on the boat used.

**Designing Instruction**

- Refer back to the kick-up action of the centerboard and the rudder that was discussed prior to launching.  
- Many sailing dinghies have detachable rudder/tiller assemblies.  
- Depth of water at the departure point will influence whether or not the centerboard and rudder need to be raised before arrival.

**Assessing Performance**

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
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</table>
| 3     | The operator:  
5.2a Adjusts rudder correctly so that there is no contact with the ground or objects in the water during arrival.  
5.2b Adjusts centerboard correctly with little to no contact with the ground or objects in the water.  
5.2c Causes no damage to boat during arrival. |
| 2     | The operator:  
5.2a Adjusts rudder resulting in slight contact with the ground or objects in the water but re-adjusts to correct during arrival.  
5.2b Adjusts centerboard resulting in slight contact with the ground or objects in the water but re-adjusts to correct.  
5.2c Causes no damage to boat during arrival. |
| 1     | The operator:  
5.2a Adjusts rudder resulting in contact with the ground or objects in the water that impedes forward motion of boat during arrival.  
5.2b Adjusts centerboard resulting in contact with the ground or objects in the water that impedes forward motion of boat during arrival.  
5.2c Causes damage to boat during arrival. |
Element # 5.3: The operator will be able to: A: Bring the sailboat to a stop at a specified location… B: checking for a clear approach, turning boat in the appropriate direction and using proper control of tiller and sails (if applicable) to arrive smoothly.

Understanding the Element

- Executing a controlled, smooth landing without damaging the boat incorporates many other elements, including wind awareness, understanding how far the boat will coast, assessing suitable room for the maneuver and appropriate steering, mooring line and sail handling.
- Correctly assessing wind and current is key to positioning the boat correctly.
- Proper line handing, including the ability to toss (heave) and receive a line correctly, are important to help with a safe and smooth landing.
- When someone receives a line there is risk of loss of balance if they fail to keep themselves in a safe position while receiving line.
- The line can injure the receiver if there isn’t a target away from their head. An outstretched arm is a good target for the received line to be aimed toward.

Designing Instruction

- An upwind approach is usually preferred, so that the boat will stop more readily.
- Pointing out the similarity to maneuvering back to a man overboard can be beneficial.
- Practice turning head-to-wind and coasting several times in open water.
- This skill is boat specific in that light boats don’t coast far and heavy boats coast farther. The speed of the turn can also affect the coasting distance, so practice before approaching a landing.

Assessing Performance

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<tbody>
<tr>
<td>3</td>
<td>Successful Performance</td>
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<tr>
<td></td>
<td>The operator:</td>
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<tr>
<td></td>
<td>5.3a Performs complete 360-degree scan of arrival area.</td>
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<tr>
<td></td>
<td>5.3b Identifies all potential conflicts between intended arrival path and other boats/activities in the vicinity.</td>
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<tr>
<td></td>
<td>5.3c Turns boat in appropriate direction.</td>
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<tr>
<td></td>
<td>5.3d Uses tiller and sail(s) in a coordinated motion.</td>
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<tr>
<td></td>
<td>5.3e Stops boat smoothly (e.g., slight contact or no contact at all with dock; does not run over mooring ball; boat just touches shoreline, etc.).</td>
</tr>
<tr>
<td></td>
<td>5.3f Stops within a distance allowing boat to be secured easily (e.g., dock within a 1 foot; mooring within boat hook reach; shoreline where operator can step out on to beach or into shallow water).</td>
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<tr>
<td></td>
<td>5.3g Uses appropriate method to toss a line (if applicable).</td>
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<tr>
<td></td>
<td>5.3h Uses appropriate method to receive a tossed line (if applicable).</td>
</tr>
<tr>
<td>2</td>
<td>Needs Improvement</td>
</tr>
<tr>
<td></td>
<td>The operator:</td>
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<tr>
<td></td>
<td>5.3a Performs an incomplete scan (less than 360-degrees) of arrival area.</td>
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<tr>
<td></td>
<td>5.3b Identifies some but not all potential conflicts between intended departure path and other boats/activities in the vicinity.</td>
</tr>
<tr>
<td></td>
<td>5.3c Turns boat in appropriate direction.</td>
</tr>
<tr>
<td></td>
<td>5.3d Uses tiller and sail(s) in a coordinated motion but not well timed for the maneuver.</td>
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<tr>
<td></td>
<td>5.3e Stops boat abruptly, but without damage (e.g., bumps dock abruptly; boat touches mooring; stops abruptly at shoreline, etc.).</td>
</tr>
<tr>
<td></td>
<td>5.3f Stops within a distance allowing boat to be secured with slight difficulty (e.g., dock within a 2-3 feet; mooring just outside of comfortable boat hook reach; shoreline where operator steps out into knee-deep water).</td>
</tr>
<tr>
<td></td>
<td>5.3g Uses appropriate method to toss a line (if applicable).</td>
</tr>
<tr>
<td></td>
<td>5.3h Uses appropriate method to receive a tossed line (if applicable).</td>
</tr>
<tr>
<td>1</td>
<td>Unacceptable (unsuccessful) Performance</td>
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<td>----------------------------------------</td>
</tr>
<tr>
<td>The operator:</td>
<td></td>
</tr>
<tr>
<td>5.3a Does not scan arrival area.</td>
<td></td>
</tr>
<tr>
<td>5.3b Does not show identify potential conflicts between intended departure path and other boats/activities in the vicinity.</td>
<td></td>
</tr>
<tr>
<td>5.3c Does not turn boat in appropriate direction.</td>
<td></td>
</tr>
<tr>
<td>5.3d Does not use tiller and sail(s) in a coordinated motion.</td>
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</tr>
<tr>
<td>5.3e Stops boat abruptly, resulting in possible damage or injury (e.g., boat slams into dock, impact causes operator to be thrown off balance; hard ramming stop at shoreline, etc.).</td>
<td></td>
</tr>
<tr>
<td>5.3f Does not stop boat within a distance allowing boat to be secured.</td>
<td></td>
</tr>
<tr>
<td>5.3g Does not use appropriate method to toss line, or line becomes tangled during toss (if applicable).</td>
<td></td>
</tr>
<tr>
<td>5.3h Does not receive an accurately tossed line, or drops line (if applicable).</td>
<td></td>
</tr>
</tbody>
</table>
Element # 5.4: The operator will be able to: A: **Lower the sails**... B: positioning boat correctly relative to the wind using appropriate sail lowering techniques and maintaining control of the boat and sails throughout.

Understanding the Element

- Keeping the sails depowered and under control during lowering prevents the boat from sailing uncontrolled around the dock or mooring, possibly causing damage.
- Smoothly lowering sails makes removing and flaking them easier.
- ‘Lower the sails’ can also mean “furl the sail(s),” if a roller furler system is used.

Designing Instruction

- This operation is boat-specific in that roller furling, sail slides, sleeves, etc. all require different techniques.
- A jib on a roller furler should be furled when the boat is on a broad reach, so that the pressure on the jib is reduced. Jib furling lines should be pulled in by hand and not placed on winches, since this could damage the furler.
- A hanked-on jib needs to be controlled so that it does not go overboard. Using a sail tie to temporarily secure the sail can help.
- The mainsail should be lowered when the boat is head to wind.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
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</thead>
<tbody>
<tr>
<td>3 Successful Performance</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>5.4a Positions boat correctly relative to the wind.</td>
</tr>
<tr>
<td></td>
<td>5.4b Lowers sails using appropriate sail lowering techniques.</td>
</tr>
<tr>
<td></td>
<td>5.4c Maintains control of boat and sails throughout the process.</td>
</tr>
<tr>
<td>2 Needs Improvement</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>5.4a Positions boat correctly relative to the wind.</td>
</tr>
<tr>
<td></td>
<td>5.4b Lowers sails but uses inefficient techniques or trial and error resulting in starts and stops.</td>
</tr>
<tr>
<td></td>
<td>5.4c Maintains control of boat and sails throughout most of the process.</td>
</tr>
<tr>
<td>1 Unacceptable (unsuccessful) Performance</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>5.4a Does not position boat correctly relative to wind.</td>
</tr>
<tr>
<td></td>
<td>5.4b Lowers sails using inappropriate techniques or does not lower the sails.</td>
</tr>
<tr>
<td></td>
<td>5.4c Loses control of boat or sails during the process (e.g., boat continues to sail without control).</td>
</tr>
</tbody>
</table>
Operation #6: Secure the boat (preparing to leave the craft unattended)

Element # 6.1: The operator will be able to: A: Secure the sailboat… B: using appropriate lines, knots, and proper fender positioning (if applicable), allowing for possible changes in wind, current and tide.

Understanding the Element

- The boat may be unattended for a time, dock lines, fenders and if on a mooring, the pennant, chocks and chafing gear should be arranged to allow for changes in wind direction and strength as well as tidal effects.
- Improper securing often results in damage.
- ‘Secure’ means to attach the boat firmly to the mooring device or dock.

Designing Instruction

- Mooring is not only boat-specific, but varies with location and facility type. In teaching a novice, the reason for each operation, line, fender, etc. should be clearly explained as it is being employed.
- This element is a good opportunity to practice and reinforce proper knot usage and construction.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Successful Performance</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>6.1a Secures boat.</td>
</tr>
<tr>
<td></td>
<td>6.1b Uses appropriate lines and knots.</td>
</tr>
<tr>
<td></td>
<td>6.1c Uses appropriate line lengths allowing for possible changes in wind, current and tide.</td>
</tr>
<tr>
<td></td>
<td>6.1d Uses proper fender positioning (if applicable).</td>
</tr>
<tr>
<td>2 Needs Improvement</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>6.1a Secures boat.</td>
</tr>
<tr>
<td></td>
<td>6.1b Utilizes some appropriate lines and knots.</td>
</tr>
<tr>
<td></td>
<td>6.1c Does not use appropriate line lengths that would allow for possible changes in wind, current and tide.</td>
</tr>
<tr>
<td></td>
<td>6.1d Uses fenders but does not position them correctly (if applicable).</td>
</tr>
<tr>
<td>1 Unacceptable (unsuccessful) Performance</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>6.1a Does not secure boat.</td>
</tr>
<tr>
<td></td>
<td>6.1b Does not use appropriate lines and knots.</td>
</tr>
<tr>
<td></td>
<td>6.1c Does not set lines to allow for changes in wind, current and tide.</td>
</tr>
<tr>
<td></td>
<td>6.1d Does not use fenders (if applicable).</td>
</tr>
</tbody>
</table>
Element # 6.2: The operator will be able to: A: Ready the sailboat to be left unattended... B: stowing properly all equipment/gear, lines, and sails.

Understanding the Element

- Securely stowing all equipment, consistent with the practice for the boat and facility, ensures the boat is ready for the next user, and helps keep the boat from being damaged.
- This is boat-specific in that sails may be bagged, furled on the boom with a cover or taken ashore.

Designing Instruction

- Demonstrate preferred sail and gear stowage, and securing of sail control lines.
- Use of checklist ensures required equipment is on board or available, if stored ashore.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
</tr>
</thead>
</table>
| 3 Successful Performance      | The operator:
|                               | 6.2a Properly stows all equipment/gear, lines and sails.                                 |
| 2 Needs Improvement           | The operator:
|                               | 6.2a Properly stows some but not all equipment/gear, lines and sails.                    |
| 1 Unacceptable (unsuccessful) | The operator:
| Performance                    | 6.2a Does not stow equipment/gear, lines, or sails.                                      |
**Element # 6.3**: The operator will be able to: **A: Get off the sailboat**... **B: keeping the boat reasonably stable (e.g., minimal rocking) while offloading persons and gear.**

**Understanding the Element**

- Operators need to know how to move about the boat and keep their balance to keep from falling.
- ‘Board’ means the act of moving onto the boat from a dinghy, a dock, a beach, or from the water.
- Ensures a safe, damage free exit from the boat.
- Demonstrates an understanding of the importance of weight distribution in moving about a boat.
- Smaller boats are more sensitive to positioning of weight than larger keelboats.

**Designing Instruction**

- Encourage students to announce when they are getting off a boat so that others already aboard know to hang on or sit down as the boat moves. “Stepping off” is a common phrase.
- “One hand for the boat, one for yourself” is a phrase often used to describe the need to hold on while doing work on the boat.
- Gear should be passed to another person ashore prior to stepping off.

**Assessing Performance**

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<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
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<tbody>
<tr>
<td>3</td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>6.3a Gets off boat keeping it reasonably stable with no sudden recovery motions.</td>
</tr>
<tr>
<td></td>
<td>6.3b Keeps boat reasonably stable while offloading persons/gear.</td>
</tr>
<tr>
<td>2</td>
<td>The operator:</td>
</tr>
<tr>
<td>Needs Improvement</td>
<td>6.3a Gets off boat keeping it somewhat stable, but may require sudden recovery motions.</td>
</tr>
<tr>
<td></td>
<td>6.3b Keeps boat somewhat stable while offloading persons/gear.</td>
</tr>
<tr>
<td>1</td>
<td>The operator:</td>
</tr>
<tr>
<td>Unacceptable (unsuccessful) Performance</td>
<td>6.3a Does not get off boat, falls in water, or causes boat to rock excessively or capsize.</td>
</tr>
<tr>
<td></td>
<td>6.3b Does not keep boat stable while offloading persons/gear.</td>
</tr>
</tbody>
</table>
Operation #7: Perform general safety/emergency procedures/maneuvers

Element # 7.1: The operator will be able to: A: Depower the sailboat quickly... B: adjusting sails and tiller appropriately to control the boat.

Understanding the Element

- This is critical in small boats when the wind is gusty to avoid capsize and in larger boats to stay in control and keep crew comfortable.
- This is important for quickly slowing boat in a close quarters situation, after running aground or in a man overboard situation.
- ‘Quickly’ means without confusion or hesitation.

Designing Instruction

- Important to communicate that depowering only works while close-hauled, close reaching or possibly beam reaching. If depowering quickly while on a broad reach or run, it will be necessary to head up to an upwind point of sail.
- If speed control is the purpose, the different points of sail will result in different rates of deceleration.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
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</table>
| **3** Successful Performance | The operator:  
7.1a Depowers boat quickly with no delay.  
7.1b Adjusts sails quickly.  
7.1c Adjusts tiller appropriately to maintain control of boat (e.g., holds tiller steady if sailing upwind, heads quickly upwind to depower boat if sailing downwind, etc.). |
| **2** Needs Improvement | The operator:  
7.1a Depowers boat after slight delay.  
7.1b Adjusts sails after slight delay.  
7.1c Adjusts tiller inappropriately but effectively to maintain control of boat (e.g., moves tiller slightly more than needed if sailing upwind, heads upwind after slight delay, etc.). |
| **1** Unacceptable (unsuccessful) Performance | The operator:  
7.1a Does not depower the boat (i.e., boat remains at same speed, or does not slow down enough).  
7.1b Does not adjust sails.  
7.1c Does not adjust tiller (e.g., moves tiller excessively if sailing upwind, does not turn boat upwind if sailing downwind, etc.). |
Element # 7.2: The operator will be able to: A: Avoid collisions... B: by maintaining a proper lookout, assessing potential risk of collision and taking early and substantial action.

Understanding the Element

- Avoid collisions with other boats by knowing and taking proper action based on the navigation rules.
- Recognize, assess, and avoid hazards by taking early and substantial action.
- The operator should be able to maintain trim and balance of the craft while maneuvering.
- ‘Proper lookout’ means being aware of boat traffic and hazards at all times, 360-degrees around the boat.
- ‘Early and substantial action’ means changes made to course and/or speed early enough that the operator did not have to make abrupt changes that would affect the trim or balance of the craft AND the maneuver was apparent to opposing craft in sufficient time to avoid collision.

Designing Instruction

- Operators should constantly maintain a high degree of situational awareness.
- Operators should know and recognize hazards of the area they are operating in.
- Content should include discussion of navigational rules.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
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<tbody>
<tr>
<td>3</td>
<td>Successful Performance</td>
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<tr>
<td></td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>7.2a Maintains a proper lookout.</td>
</tr>
<tr>
<td></td>
<td>7.2b Consistently maintains safe speed.</td>
</tr>
<tr>
<td></td>
<td>7.2c Assesses potential risks of collision.</td>
</tr>
<tr>
<td></td>
<td>7.2d Consistently takes appropriate action (e.g., maintains course and speed if stand-on vessel, takes early and substantial action to keep well clear if give-way vessel, etc.).</td>
</tr>
<tr>
<td></td>
<td>7.2e Keeps well clear of other boats and completely avoids potential collision.</td>
</tr>
<tr>
<td>2</td>
<td>Needs Improvement</td>
</tr>
<tr>
<td></td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>7.2a Inconsistently maintains a proper lookout (infrequent or incomplete horizon scan).</td>
</tr>
<tr>
<td></td>
<td>7.2b Inconsistently maintains safe speed.</td>
</tr>
<tr>
<td></td>
<td>7.2c Assesses potential risks of collision.</td>
</tr>
<tr>
<td></td>
<td>7.2d Inconsistently takes appropriate action (e.g., maintains course and speed if stand-on vessel, takes early and substantial action to keep well clear if give-way vessel, etc.).</td>
</tr>
<tr>
<td></td>
<td>7.2e Avoids potential near potential collision, or may cause stand-on vessel to alter course.</td>
</tr>
<tr>
<td>1</td>
<td>Unacceptable (unsuccessful) Performance</td>
</tr>
<tr>
<td></td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>7.2a Does not maintain a proper lookout.</td>
</tr>
<tr>
<td></td>
<td>7.2b Inconsistently maintains safe speed.</td>
</tr>
<tr>
<td></td>
<td>7.2c Does not assess risks of collision.</td>
</tr>
<tr>
<td></td>
<td>7.2d Does not take appropriate action.</td>
</tr>
<tr>
<td></td>
<td>7.2e Collides with other boat.</td>
</tr>
</tbody>
</table>
Element # 7.3: The operator will be able to: A: Accept a single line or side tow…  B: maneuvering safely for at least 20 boat lengths.

Understanding the Element

- This element applies to both sailing dinghies and keelboats.
- Since there can be significant line loading associated with towing, proper technique is required to prevent damage or injury.
- With the towed and towing boats in close proximity to one another, proper protocols are required to prevent collision that might result in damage or injury.
- Towing behind and towing alongside require different skill sets.
- ‘Single line’ means a tow behind with a line from the towing boat’s stern to a point toward the towed boat’s bow.
- ‘Side tow’ means the towing boat is tied abreast of the towed boat in such a way that the towing boat maintains maneuverability.
- Towing can be done either by single line or by side tow.

Designing Instruction

- Before accepting tow, towed boat must secure sails, boom, and loose equipment.
- To avoid damage or injury, the towing line must be attached to a sufficiently sturdy point on the towed boat, such as bow cleats, bowline around mast. Avoid tying a line to the headstay.
- Ensure sufficient distance between towboat and towed boat. Allow some catenary (sag) in towline for shock absorption. Keep the towed boat far enough behind to remove the risk of the towed boat running into the towboat if it stops.
- Emphasize importance of the towed boat’s operator, in a single line tow, steering in the same path as the towboat.
- In side tow, emphasize that the propulsion of the towboat needs to be substantially aft of the stern of the towed boat for maneuverability. Spring lines and breast lines must be tight to reduce independent movement of the two boats. Use fenders to preventing damage.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Successful Performance</td>
<td>The operator: 7.3a Reads boat for tow by demonstrating safety and hazard awareness of sails, booms, sheets, and centerboard/daggerboards. 7.3b Catches/throws tow line. 7.3c Properly secures boat to tow, including fenders, spring lines, etc., if needed. 7.3d Safely maneuvers behind towboat for at least 20 boat lengths.</td>
</tr>
<tr>
<td>2 Needs Improvement</td>
<td>The operator: 7.3a Reads boat for tow by demonstrating safety and hazard awareness of sails, booms, sheets, and centerboard/daggerboards. 7.3b Makes more than one attempt to catch/throw towline. 7.3c Improperly secures boat to tow, including fenders, spring lines, etc., if needed. 7.3d Inconsistently maneuvers safely behind towboat for 10-20 boat lengths.</td>
</tr>
<tr>
<td>1 Unacceptable (unsuccessful) Performance</td>
<td>The operator: 7.3a Does not demonstrate safety or hazard awareness of sails, booms, sheets, and centerboard/daggerboards. 7.3b Does not catch/throw tow line. 7.3c Does not secure boat to a tow. 7.3d Causes boat to meander, or does not track or maneuver safely behind towboat.</td>
</tr>
</tbody>
</table>
Element # 7.4: The operator will be able to:  A: Return to man overboard (MOB)...  B: using a suitable method to maneuver boat (e.g., Figure-8, Quick Stop, Quick Turn) and stopping the boat at a reasonable distance from MOB (e.g., arms’ reach for sailing dinghy; ½ boat length for keelboat) in a reasonable period of time for the situation (i.e., boat size/ configuration, wind/water conditions).

Understanding the Element

- This element refers to a situation in which a person has fallen out of a boat while underway. The boat may be the operator’s boat, or it may be from some other boat in the area.
- Falling overboard while underway accounts for a significant number of injuries and fatalities in recreational boating. It is typically an unexpected surprise. Returning to a man overboard (MOB) in a safe and timely manner plays an important role in likelihood of a MOB being rescued without injury. Often times, the operator is maneuvering the boat close enough to the MOB to return in time to ensure a safe rescue. This element is included to ensure the operator has the ability to implement such a maneuver.
- This element is focused on returning to the person in the water, putting the boat in close proximity to the MOB. It does NOT include actual retrieval of the MOB back onto the boat.
- ‘Stopping the boat’ means stopping relative to the MOB, as both may be drifting with current.
- ‘Suitable method’ can be any appropriate method for the boat, the conditions, and the waterway.
- ‘Reasonable distance’ is defined in the element as ‘arm’s reach’ (about 3 feet) for a sailing dinghy and ‘½ boat length’ (about 10-12 feet) for a small keelboat.
- ‘Reasonable period of time’ will also be driven by factors such as water temperature, wind speed, wave height, etc.

Designing Instruction

- This skill should be practiced in varying conditions if possible.
- The initiating event in this maneuver is for someone to yell “Man overboard,” point to the person in the water and, unless otherwise directed, continue to point to the MOB until recovery occurs or is determined to be impossible.
- A Figure-8 maneuver is typically used on a smaller boat where the boom is low to the cockpit, since there is no jibe in the Figure-8.
- A Quick Stop maneuver is useful to teach on larger boats where a jibe would not be as risky or for shorthanded crew situations.
- A simulated MOB, such as two fenders tied together, is useful for practicing the skill. Have the student really try to stop the boat before picking up the simulated MOB with a boat hook.

Assessing Performance

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<tr>
<th>Level</th>
<th>Proficiency Description</th>
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<tbody>
<tr>
<td>3</td>
<td>Successful Performance</td>
</tr>
<tr>
<td></td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>7.4a Uses suitable method (e.g., Figure-8, Quick Stop, Quick Turn) to maneuver boat</td>
</tr>
<tr>
<td></td>
<td>7.4b Stops boat at a reasonable distance from MOB (e.g., arms’ reach for sailing dinghy; ½ boat length for keelboat).</td>
</tr>
<tr>
<td></td>
<td>7.4c Returns to MOB within a reasonable period of time for the situation.</td>
</tr>
<tr>
<td>2</td>
<td>Needs Improvement</td>
</tr>
<tr>
<td></td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>7.4a Uses suitable method (e.g., Figure-8, Quick Stop, Quick Turn) to maneuver boat.</td>
</tr>
<tr>
<td></td>
<td>7.4b Slows boat to a near stop (i.e., boat speed less than 1 knot) at a reasonable distance from MOB (e.g., arms’ reach for sailing dinghy; ½ boat length for keelboat) MOB.</td>
</tr>
<tr>
<td></td>
<td>7.4c Returns to MOB within a reasonable period of time for the situation.</td>
</tr>
<tr>
<td>1</td>
<td>Unacceptable (unsuccessful) Performance</td>
</tr>
<tr>
<td></td>
<td>The operator:</td>
</tr>
<tr>
<td></td>
<td>7.4a Does not use suitable method (e.g., Figure-8, Quick Stop, Quick Turn) to maneuver boat.</td>
</tr>
<tr>
<td></td>
<td>7.4b Does not stop boat, stops boat at a distance of more than one-half boat length from MOB, OR collides with MOB.</td>
</tr>
<tr>
<td></td>
<td>7.4c Takes longer to return to MOB than reasonable for the situation.</td>
</tr>
</tbody>
</table>
Element # 7.5: The operator will be able to: A: Recover a capsized sailboat…  B: using proper techniques to return the boat to an upright position, re-enter boat, and ready boat for sailing. *†

*Note: This skill applies to boat types that allow for self-rescue and re-boarding without assistance.
†Note: Persons with disabilities may require assistance to complete this skill.

Understanding the Element

- The capsized boat is on its side with the mast and sail(s) in the water and often includes person(s) in water, creating an unstable and dangerous situation that needs to be rectified quickly.
- This element applies only to sailing dinghies, not keelboats.
- ‘Proper techniques’ may include:
  - Boat positioned with mast downwind
  - Main/jib sheets free to run
  - Weight pressed on centerboard/daggerboard until rail is within reach
  - Once righted, get bow into wind before attempting to board (or any protocol that gets boat righted quickly, prevents boat from sailing away once righted & allows collecting any gear floating away).
- Majority of water must be removed from boat once righted to improve stability and control.

Designing Instruction

- Develop functional protocol for capsize self-rescue, including righting and re-boarding each specific type of boat. Include operator checking for the safety of others in the water (if applicable) as first priority.
- Determine in advance whether a righting line should be rigged.
- Ensure, in anticipation of practicing a capsize self-rescue, that gear is secured to boat if possible and that proper clothing that protects sailor from cold water and chafe, but allows sailor to remain agile enough to perform a righting and bailing of the sailboat.

Assessing Performance

<table>
<thead>
<tr>
<th>Level</th>
<th>Proficiency Description</th>
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<tbody>
<tr>
<td>3 Successful Performance</td>
<td>The operator: 7.5a Returns boat to upright position without assistance in one attempt using appropriate and effective techniques (e.g., positions front of boat toward wind prior to righting). 7.5b Re-enters boat on first attempt without assistance, using proper techniques. 7.5c Completely readies boat for sailing (e.g., removes all water, re-stows gear, readies lines, etc.).</td>
</tr>
<tr>
<td>2 Needs Improvement</td>
<td>The operator: 7.5a Returns boat to upright position without assistance using more than one attempt or using inappropriate but effective techniques. 7.5b Re-enters boat using proper techniques after more than one attempt, without assistance using proper techniques. 7.5c Mostly readies boat for sailing (e.g., partially removes water, puts gear in boat but not stowed properly, lines are disorderly, etc.).</td>
</tr>
<tr>
<td>1 Unacceptable (unsuccessful) Performance</td>
<td>The operator: 7.5a Does not return boat to upright position or requires assistance to right boat. 7.5b Does not re-enter boat or requires assistance to enter boat OR uses inappropriate re-boarding techniques, possibly leading to injury. 7.5c Does not ready boat for sailing (e.g. water not removed, gear not recovered or stowed, lines not ready, etc.).</td>
</tr>
</tbody>
</table>
Appendix A: Sailing Skills Standard ANS

Following is the On-Water Recreational Boating Skills Standard – Sail. Since this ANS serves as the primary source document for the design, development and implementation of entry-level recreational sailboat instruction, it is recommended that a copy of the original ANS be included with course or instructional materials. This will help ensure those who design or deliver instruction, as well as students receiving instruction; all share the same starting point for understanding the content of the ANS.

To download a free copy of the Sailing Skills ANS, visit: www.usnows.org.
The ABYC Standards and Technical Information Reports for Small Craft are the product of a consensus of representatives of government, industry and public sectors. It is intended solely as a guide to aid manufacturers and the marine community in the design, construction, equipage and maintenance of small craft.

ABYC reviews each standard at least every five years at which time it may be reaffirmed, revised, or withdrawn. ABYC welcomes any written comments on the standards and Technical information reports.

EDU-3

SKILLS-BASED SAILBOAT STANDARD

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ON-WATER EDUCATION PROJECT TECHNICAL COMMITTEE

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Willie Black      Emily King          Robin Pope
Pete Chisholm     Timmy Larr          Karen Prioleau
Gordon Colby      Thomas Lindblade    Jeff Riecks
Pam Dillon        John Malatak        Bruce Rowe
Peter Durant      Dan Maxim            Linda Stearns
Rick Franke       Jim Muldoon         Chris Stec
Josh Hall         Jeremy Oyen          Lynn Lynch
Harry Horgan

This list represents the membership at the time the Committee was balloted.

NOTE: Membership on a committee shall not in and of itself constitute an endorsement of ABYC or any document developed by the committee on which the member serves.

This standard was developed under procedures accredited as meeting the criteria for American National Standards. The Project Technical Committee that approved the Standard was balanced to ensure that individuals from competent and concerned interests have 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.

ABYC’s Project Technical Committee meetings are open to the public. All contact regarding standards activity, interpretations, or meeting attendance should be directed to the ABYC Technical Department at comments@abyinc.org.

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REQUEST FOR INTERPRETATIONS

Upon written request, the On-Water Education PTC 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 PTC in a manner in which they may be answered in a yes or no fashion.

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

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EDU-3 Skills-based SailBoat Standard
National System of Standards for Recreational Boat Operation

Title: On-Water Recreational Boating Skills Standard – SAIL

Purpose: To establish the national consensus-based standard for use by course providers for course design and student assessment to raise the overall level of quality, availability and consistency of entry-level on-water, skills-based instruction in recreational sailboat operation.

Scope: This is the core voluntary standard designed to apply to entry-level SAIL on-water skills-based courses in the U.S. states and territories and District of Columbia and function within a national system of standards for recreational boat operation.

<table>
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<th>SAIL</th>
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<tr>
<td><strong>Domain of application</strong></td>
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<tr>
<td><strong>Boat Characteristics:</strong> Small keelboat or sailing dinghies to include daysailers, centerboard/daggerboard boats, or multihulls at a maximum of 26 feet with tiller steering and with no auxiliary power in operation</td>
</tr>
<tr>
<td><strong>Wind/Water Conditions:</strong> wind 10 knots or less; maximum 12 knot gusts; waves 2 feet or less</td>
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<tr>
<td><strong>Operation Conditions:</strong> Daytime with no restricted visibility or threatening weather</td>
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| Stages of entry-level recreational boat operation |
| **NOTE:** For those recreational boat operations where the boat is underway, individual skill-based standard elements in this On-Water SAIL Standard are to be accomplished in accordance with any aids to navigation, navigational rules, and any regulations applicable to the location in which the skill is being executed. |
Operation #1: Prepare to depart

The operator will be able to:

1.1 A: Determine suitability for departure... B: using information gathered about weather conditions, hazards to navigation and other environmental factors relative to departure time and duration of trip.

1.2 A: Put on a life jacket... B: ensuring it is appropriate for the boat/activity, sized correctly, serviceable, and adjusted to fit properly.

1.3 A: Confirm that all crew and passengers put on their life jackets... B: ensuring the life jackets are appropriate for the boat/activity, sized correctly, serviceable, and adjusted to fit properly.

1.4 A: Board and move about the sailboat... B: maintaining balance while keeping boat reasonably stable (e.g., minimal rocking) while boarding and distributing persons/gear appropriately.

1.5 A: Inspect the sailboat... B: using a pre-departure checklist to confirm a safe platform and verify required equipment is on board.

1.6 A: Rig sails and lines... B: following rigging procedures for specific boat, ensuring sail controls are operational, and using proper knots.

1.7 A: Communicate safety-related information to others on board... B: briefing passengers and crew prior to departure (e.g., location of safety items, key safety concerns, anticipated weather and water conditions, expected behaviors, rescue procedures, etc.).

1.8 A: Ready the sailboat (and crew if applicable) for departure... B: positioning boat properly using lines/fenders (if applicable), considering wind and current and communicating departure plan (if applicable).

Operation #2: Leave point of departure (e.g., dock, mooring, shoreline, etc.)

The operator will be able to:

2.1 A: Secure positions of rudder and centerboard (if applicable)... B: adjusting centerboard and rudder for departure, ensuring neither comes in contact with the ground or objects in the water.

2.2 A: Raise the sails... B: positioning boat correctly relative to the wind and conditions (e.g., current), using appropriate sail raising techniques, and maintaining control of the boat and sails throughout.

2.3 A: Get underway and start sailing... B: checking for clear departure, pushing or turning boat in appropriate direction and coordinating sails and tiller adjustments to get boat under control.

Operation #3: Maneuver in close quarters

The operator will be able to:

3.1 A: Turn the sailboat in a 360-degree circle... B: using proper tiller, sail, and weight positioning, and turning within a distance of four boat lengths.

3.2 A: Turn the sailboat out of a head-to-wind position (i.e., get out of irons)... B: getting boat sailing again on intended tack, properly adjusting sails and tiller.

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Operation #4: Operate in open water

The operator will be able to:

4.1 A: Steer the sailboat in a straight line (hold a steady course)… B: using sail trim and tiller and adjusting the boat’s heading for changes in the wind (speed or direction) to maintain course within +/- 10 degrees for 10 boat lengths.

4.2 A: Place the sailboat in the safety position (or heave to if applicable for boats with two sails) and then resume sailing on a specific tack… B: using proper control of sails and tiller.

4.3 A: Turn the sailboat away from the wind… B: adjusting sails and tiller and communicating to crew if appropriate.

4.4 A: Turn the sailboat toward the wind… B: adjusting sails and tiller and communicating to crew if appropriate.

4.5 A: Slow and then accelerate the sailboat maintaining constant heading… B: adjusting sails and tiller.

4.6 A: Tack the sailboat… B: using proper sail control, tiller movement, and body movement; and communicating to crew (e.g., 2-part command), if appropriate.

4.7 A: Sail the boat upwind (i.e., close-hauled or on a shallow close reach)… B: using proper sail trim and tiller control.

4.8 A: Sail the boat on a reach (across the wind; i.e., deep close reach, beam reach or shallow broad reach)… B: using proper sail trim and tiller control.

4.9: A: Sail the boat downwind (i.e., on a deep broad reach or run)... B: using proper sail trim and tiller control.

4.10 A: Sail directly downwind… B: avoiding an unintentional jibe for 10 boat lengths.

4.11 A: Jibe the sailboat… B: using proper sail control, tiller movement, and body movement; and communicating to crew (e.g., 2-part command), if appropriate.

Operation #5: Arrive at destination (e.g., dock, mooring, shoreline, etc.) making first contact

The operator will be able to:

5.1 A: Ready the sailboat for arrival… B: using appropriate boat position relative to arrival point (e.g., dock, mooring, shoreline, etc.), sail configurations, and docklines/fenders (if applicable), taking wind and current into consideration.

5.2 A: Secure positions of rudder and centerboard (if applicable)... B: adjusting centerboard and rudder for arrival, ensuring neither comes in contact with the ground or objects in the water.

5.3 A: Bring the sailboat to a stop at a specified location… B: checking for a clear approach, turning boat in the appropriate direction and using proper control of tiller and sails (if applicable) to arrive smoothly.

5.4 A: Lower the sails… B: positioning boat correctly relative to the wind using appropriate sail lowering techniques and maintaining control of the boat and sails throughout.

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Operation #6: Secure the boat (preparing to leave craft unattended)

The operator will be able to:

6.1 A: Secure the sailboat... B: using appropriate lines, knots, and proper fender positioning (if applicable), allowing for possible changes in wind, current and tide.

6.2 A: Ready the sailboat to be left unattended... B: stowing properly all equipment/gear, lines, and sails.

6.3 A: Get off the sailboat... B: keeping the boat reasonably stable (e.g., minimal rocking) while offloading persons and gear.

Operation #7: Perform general safety/emergency procedures/maneuvers

The operator will be able to:

7.1 A: Depower the sailboat quickly... B: adjusting sails and tiller appropriately to control the boat.

7.2 A: Avoid collisions... B: by maintaining a proper lookout, assessing potential risk of collision and taking early and substantial action.

7.3 A: Accept a single line or side tow... B: maneuvering safely for at least 20 boat lengths.

7.4 A: Return to man overboard (MOB)... B: using a suitable method to maneuver boat (e.g., Figure-8, Quick Stop, Quick Turn) and stopping the boat at a reasonable distance from mob (e.g., arms’ reach for sailing dinghy; ½ boat length for keelboat) in a reasonable period of time for the situation (i.e., boat size/configuration, wind/water conditions).

7.5 A: Recover a capsized sailboat... B: using proper techniques to return the boat to an upright position, re-enter boat, and ready boat for sailing. *†

*Note: This skill applies to boat types that allow for unaided capsized recovery and re-boarding without assistance
†Note: Persons with disabilities may require assistance to complete this skill

****

Origin and Development of EDU-3, Sail Boat Standard

This is the first publication of EDU-3. It is the work of the On-Water Education Project Technical Committee.

*****

ABYC technical board rules provide that all reports, including standards and technical information reports, are advisory only. Their use is entirely voluntary. They represent, as of the date of publication, the consensus of knowledgeable persons, currently active in the field of small craft, on performance objectives that contribute to small boat safety.

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Appendix B: Basic Boating Knowledge Standard – Sail

The American National Standard for basic sail boating knowledge in this appendix was developed by the National Association of State Boating Law Administrators’ (NASBLA) Education Standards Panel (ESP). Since this standard serves as a primary source document for the design, development and implementation of entry-level instruction in recreational sailing knowledge, it is provided here to support efforts to design and deliver instruction that integrates acquisition of the knowledge and skills associated with safe and enjoyable recreational boating.

To download a free copy of this knowledge standard, visit: https://www.nasbla.org/education/national-ed-standards.
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 (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 he has 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.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken periodically to reaffirm, revise, or withdraw this standard. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute.

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National Boating Education Standards Panel

Chris Edmonston, 2016 Chair/ Harry Munns, 2017 Chair

Ed Huntsman   Ernie Lentz   Tanya Wakelin
Hugh Gibson   Joseph McCullough   Jeffrey Wheeler
Emily King   Jeff Riecks   Amanda Perez (2017)
   Tim Spice

This list represents the panel membership at the time this draft standard was posted for final consensus ballot. It was drafted by a group of Subject Matter Experts which included both members and non-members of the Education Standards Panel. This document was accepted by the Panel and approved as a draft standard for public review and comment. This version is accepted by consensus balloting by the Education Standards Panel membership for submission as an American National Standard.

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 knowledge 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.
ANSI/ NASBLA 102-2017
Basic Boating Knowledge – Sailing

A) Scope: This Standard applies to basic sailing knowledge education and proficiency assessment in the United States, U.S. territories, and the District of Columbia.

B) Purpose: This document establishes the national standard for basic recreational sailing knowledge with a primary focus on safety and mitigation of risks associated with recreational sail boating.

C) Description: This Standard contains the basic knowledge elements that a beginner (entry-level) operator should have in order to safely operate a small sailboat of less than 26 feet in length by day in light to moderate winds (up to 12 knots) and sea conditions. Auxiliary power knowledge is not included. On-water skills elements are not included.

1.0 Sailing Terminology & Wind Awareness
1.1 Identify and describe the functions of the parts of a typical small sailboat.
1.2 List and define directional terms relating to the sailboat.
1.3 List and define directional terms relating to the wind.
1.4 Describe visual and non-visual indicators that may be used to provide a sense of wind direction and strength.

2.0 Sailboat Features & Performance
2.1 Describe the purpose and functions of the tiller, tiller extension, and rudder, as well as the relationship between boat speed and rudder control.
2.2 Describe the functions of, and differences between, a ballasted keel and a centerboard or dagger board.
2.3 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.
2.4 Describe what adjustments to the sails and rudder must be made to accommodate changes in wind direction and wind speed.
3.0 Points of Sail & Maneuvers

3.1 Describe and identify using diagrams 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

3.2 Describe the purpose and identify using diagrams the following course and tack changing maneuvers and their results:
- Heading Up
- Bearing Away
- Tacking
- Gybing (Jibing)

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

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

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

3.6 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.

3.7 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.

4.0 Trip Preparation

4.1 List all required equipment and examples of recommended equipment to be carried aboard a sailboat of less than 26 feet.

4.2 List the tasks that must be accomplished when setting up or rigging a small sailboat.

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

4.4 List maintenance issues that, if found during a pre-trip inspection, would require cancellation of the trip if not corrected before departure.
4.5 Describe benefits and methods of stowing and securing gear and equipment properly aboard a sailboat.

4.6 List sources of local knowledge concerning weather, tides, currents, and hazards and provide examples of important local information to obtain.

4.7 Describe the purpose and contents of a Float Plan, to whom it should be submitted, and when it should be cancelled.

4.8 List important considerations for personal readiness before embarking on a daysail lasting several hours.

4.9 Provide examples of factors that would lead to a no-go decision and state the reasons why.

4.10 List all critical topics that should be included in a pre-departure safety briefing for crew/passengers and describe how the briefing could be delivered.

5.0 Seamanship and Safe Operation

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

5.2 Describe dynamic crew locations to help prevent capsizing a centerboard/dagger board sailboat and to enhance performance of a keelboat.

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

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

5.5 List important safe navigation responsibilities of a sailboat operator.

5.6 Describe the operator’s responsibility for the safety of passengers/crew.

5.7 State the proper procedure for accepting a single line or side tow and safely maneuvering a sailing dinghy while under tow.

5.8 State the regulations to be followed when operating in the vicinity of military vessels.

5.9 Give reasons why boating under the influence of drugs or alcohol is unsafe.

5.10 Provide examples of suspicious activities that should be reported to proper authorities, and where to look for those activities.

5.11 Describe the purpose and usage of each of the following knots:

- Figure-8 knot
- Square/Reef knot
- Clove hitch
- Round Turn & 2 Half Hitches
- Cleat hitch
- Bowline
American National Standard (New)

• Sheet Bend

6.0 Navigation Rules
6.1 Describe, using diagrams as appropriate, the applicable rules (steering & sailing, lights, and sound signals) for up to a 26 foot recreational vessel, as found in the U.S. Coast Guard Navigation Rules and Regulations Handbook (latest version).
6.2 Describe the duty to provide assistance at sea.

7.0 US Aids to Navigation System
7.1 Identify and state the purpose of lateral aids to navigation by color, shape & numbering, including preferred channel markers.
7.2 Identify and state the purpose of safe water, regulatory and information markers by color, shape & numbering.

8.0 Emergency Preparedness & Response
8.1 Describe why it is critical to wear lifejackets and know the location and correct operation of all safety equipment, particularly in an emergency.
8.2 Describe capsizing and how to prevent and recover from capsize.
8.3 Describe how to avoid running aground and recovery procedures from a grounding.
8.4 Describe the proper deployment of an anchor and rode and how to determine appropriate scope.
8.5 Describe means for prevention of, and procedures for recovering, a person in the water, e.g. Man Overboard (MOB), cold water immersion, etc. including how to maneuver the sailboat safely back to the person.
8.6 Describe when and how boating accidents must be reported.
Appendix C: Integrating TSD Information within Education Provider Materials

Education providers are encouraged to use the information contained in this TSD to support the development and implementation of their recreational boating safety education programs. The following guidelines are provided to ensure appropriate use of the TSD content within program materials.

**Provide appropriate credit for direct quotes.** The information contained within this TSD is copyrighted. Therefore, when taking direct quotes from the TSD, credit the source of the information within your materials. For example:

- This TSD is copyrighted by the United States Sailing Association (US Sailing); the USCG grantee behind its development. Use a statement such as the following to provide appropriate credit when directly quoting from the TSD:


- The ANSI/102-2017: Basic Boating Knowledge – Sail contained in Appendix B is copyrighted by the National Association of State Boating Law Administrators (NASBLA); the ANSI-accredited SDO behind its development. NASBLA authorizes use of this standard for development of course and boating safety materials without the need for further written permission.

**Follow requirements for appropriate use of organizational logos.** Organizations have strict requirements for the use of their logos. Avoid using logos from any organization involved in the NOWS Program, or identified in this TSD unless such use is in full compliance with any terms and conditions set forth by those organizations. This includes the USCG, US Sailing, ABYC, NOWS, NASBLA, and Think First Serve.

**Tailor fonts and colors to fit organizational branding.** It is appropriate to format text, use font style or type sizes that are consistent with organizational color codes, style guides or branding when describing TSD content in course materials.
Appendix D: Additional Resources

This appendix contains resources that may be helpful in the design and implementation of skills-based instruction in entry-level recreational powerboat operation.


For those recreational boat operations where the boat is in motion (underway), operator skills-based elements in On-Water Recreational Boating Skills Standards are accomplished according to aids to navigation, navigational rules, and regulations applicable to the location in which the skill is being performed.

This resource contains all the current information about the Navigation Rules and Regulations powerboat operators must be able to conform to when operating a powerboat. Use it to help ensure instructional programming delivers skills that include understanding when and why operators should use the different skills acquired.

To download a copy of the manual, visit the U.S. Coast Guard’s website at: www.navcen.uscg.gov/?pageName=navRulesContent.


Website: The National Recognized Standard Evaluator Program.

This resource identifies a group of subject matter experts that course designers can access to help develop On-Water instruction that delivers the skills identified within the National On-Water Standard for Sailboat operation skills. Subject matter experts participated in an intensive training program that provided them with a unique knowledge and understanding of the Standard. Use this resource to help ensure your instructional program delivers the skills and outcomes identified in the Standard.

Included in the Registry are the names, contact information, and a short biography, for each of the subject matter experts. This group of people can provide coaching on the use of the standard to develop on-water instructional programming.

To access the National Registry, visit: http://www.onwaterstandards.org/#/national-standard-evaluators-program/c13vi.
Website: ABYC (The American Boat & Yacht Council).

The American National Standards Institute (ANSI)-approved process used to complete the approval and publication of the Standard as an American National Standard is owned by ABYC, an approved Standards Development Organization (SDO).

For further information about ABYC or the process, visit: http://www.abycinc.org.
Appendix E: Glossary of Terms

This Glossary provides definitions and descriptions of key terminology used within the on-water recreational boating skills American National Standards (ANSs) and associated Technical Support Documents (TSDs). The following sources were consulted when defining the key terminology: The American Sailing Association’s Sailing Made Easy; Bowditch Knight’s Seamanship, Start Powerboating Right!; Naval Ship Handling (Crenshaw); The Oxford Companion to Ships and the Sea; Powerboat Handling Illustrated, and US Sailing’s Learn Sailing Right – Beginner.

2-part command. A communication given by the skipper to the crew, in which some action may be expected on the part of the crew. Part 1 is the preparation and part 2 is the execution; e.g. “Ready About” and “Helm’s A-Lee” or “Prepare to Jibe” and “Jibe-Ho.”

Abeam. Off the boat at right angles to its centerline.

Aft. Toward the stern or behind the boat.

Americans with Disabilities Act (ADA). Passed in 1990, the ADA prohibits discrimination and ensures equal opportunity for persons with disabilities in employment, State and local government services, public accommodations, commercial facilities, and transportation (source: www.ada.gov/2010_regs.htm).

Apparent wind. The combination of true wind and the wind effect of motion as felt aboard a moving boat.

Asten. Behind the stern.

Avoiding collisions. Any action taken in this skill takes place in accordance with international or inland rules or special regulations related to the body of water involved. This message is emphasized for this particular standard even though all standards take place according to navigation rules.

Beam. (1) The width of the boat at its widest point; (2) The region of the boat’s sides halfway between a bow and stern.

Beam Reach. The point of sail where the wind is abeam of the boat.

Bear away. To turn the boat away from the wind, also known as “fall off.”

Bearing. The horizontal direction of a point not on the vessel with respect to the vessel or to the compass; expressed in degrees.

Beginner. A person who has begun a course of instruction or is learning the fundamentals.

Boat. The vessel under operation.

Boat length. The length of the boat the operator is aboard. Often used to judge distances the boat has traveled.

Boom. The spar that supports the foot of the mainsail.

Boom vang. A sail control, either rigid or in block and tackle form, used to hold down the boom or control the twist in the leech of the sail.
**Bow.** The forward part of the boat.

**Broad Reach.** The downwind point of sail between a beam reach and a run.

**Burying the bow.** When the entire bow (to the shear line) goes below the level of the surrounding water, whether into a wave or a trough. Water may or may not enter the boat burying the bow.

**By the lee.** Sailing on a run with the wind on the same side as the mainsail.

**Cavitation.** When low pressure along the leading edge of the propeller causes the formation of bubbles (low pressure steam) resulting in loss of thrust and metal erosion to the propeller and other propulsion components. Differs from Ventilation.

**Centerboard.** A device that pivots down from the bottom of the boat to provide lateral resistance.

**Chine.** The intersection of the bottom of the hull with the side of the boat.

**Class.** A specific occasion when students meet with an instructor to learn a particular topic. A class, sometimes referred to as a lesson, may stand on its own or be part of a larger course of instruction (see Course).

**Cleat.** A fitting used to secure a line under load.

**Clew.** The aft lower corner of the sail (between the leech and the foot)

**Close-hauled.** The upwind point of sail where a boat sails as close to the wind as possible.

**Close reach.** The upwind point of sail between close-hauled and a beam reach.

**Cockpit.** The area of the boat, usually recessed into the deck, from which the boat is steered or sailed.

**Course.** (1) The intended steering direction; (2) A series of specific learning experiences such as lectures or training sessions focused on a specific topic. A course is designed to accomplish the acquisition of a defined level of knowledge and skills associated with the specific topic. A course contains a framework of specific goals and objectives for learning experiences individuals will engage in to transfer knowledge and/or skills. It may stand on its own or be part of a larger curriculum. Multiple courses are used when the goals and objectives of a curriculum are too large in scope to be accomplished by one course.

**Crew.** People who have duties aboard or assist in the operation of a vessel.

**Cruising speed.** A speed for a particular boat usually somewhat below maximum that is comfortable and economical and not necessarily with wide-open throttle. Three-quarter throttle often provides an acceptable balance of speed and fuel efficiency.

**Cunningham.** A type of downhaul used to tension the luff of a sail.

**Curriculum.** A high-level plan or overarching framework for all the experiences individuals will engage in as part of their education. A curriculum 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 society overall.

**Daggerboard.** A device that lowers vertically down from the bottom of the boat to provide lateral resistance.
Deck. Generally horizontal surface that encloses the top of the hull.

Downhaul. A line used to tension the luff of the mainsail by pulling down the boom at the gooseneck.

Downwind. In the direction toward which the wind is blowing.

Emergency Action Plan. An emergency action plan (EAP) is a written document required by particular OSHA standards. The purpose of an EAP is to facilitate and organize employer and employee actions during workplace emergencies. (Source: https://www.osha.gov/SLTC/etools/evacuation/eap.html)

Emergency mode (stop). To stop a boat quickly for safety reasons. Synonymous with ‘panic stop’ or ‘immediate stop.’

Entry-level. 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) the associated activity.

Equipment. All items that are not fixed or permanently attached to the boat, including fenders, boathook, anchor and other items useful for departure, operation, arrival, or safety.

Erratic. Uneven, irregular or unpredictable movement.

Essential Eligibility Criteria (EEC). The requirements a student needs to meet in order to participate in a learning experience. Examples of EEC include: weight, height, ability to follow instructions, capacity to independently communicate, etc.

Experiential education. An approach to education that involves students engaging in the process of learning through hands-on activity and direct experience, followed by focused reflection, to develop knowledge, skills, attitude, judgment, values, etc., associated with the learning goals and objectives.

Foot. The bottom edge of a sail.

Formative feedback. The act of providing students with feedback during instruction about their current level of skills acquisition and to target additional learning needs. It provides opportunities to adjust learning while there is still time to redirect toward a more successful outcome.

Forward. Toward the bow.

Furl. To stow a sail on a spar or a stay.

Give-way vessel. Under the Navigation Rules, the vessel that is obligated to adjust its course or speed to avoid collision with another vessel.

Goal. The intended outcome of an instructional approach. What the student will be able to know, do or believe as a result of participating in instruction.

Gooseneck. An articulated fitting that connects a boom to a mast.

Halyard. A line used to raise and lower a sail.

Head. The top corner of a sail.

Head down. To steer away from the wind, bear away, fall off.
**Heading.** The direction the boat is pointing at any given time; sometimes expressed as *compass heading*.

**Head to wind.** A boat’s position when its bow is pointing directly into the wind.

**Head up.** To steer the boat toward the wind.

**Heave-to.** To slow a boat significantly by setting the sails and rudder in opposition.

**Heel.** (of a boat) to lean sideways under the pressure of the wind on the sails.

**Helm.** The location and/or mechanism by which a boat is steered (e.g., wheel, tiller, handle bars, etc.).

**High speed.** The minimum speed at which a boat will be on plane.

**Hull.** The watertight structural shell of a boat.

**Idle.** The lowest revolutions per minute (RPM) at which an engine will maintain continued operation. The manufacturer generally sets this through the use of a detent in the throttle or the lowest position at which the throttle can be set.

**Idle speed.** The speed of the boat through the water when continuously in gear at the lowest RPM possible.

**In irons.** The state of a sailboat that is head to wind, having lost headway with the sails luffing.

**Instructional approach.** The overall manner of preparing, supporting, delivering and following up on the way in which knowledge, skills, etc., are passed on. Includes infrastructure and support, the people involved, and the environment in which it happens, as well as the actual act of delivering instruction before, during, after a learning experience.

**Jib.** A triangular sail set forward of the mainmast.

**Jibe.** To turn the boat so that its stern passes through the wind with the mainsail changing sides.

**Keel.** The main structural member along the bottom of the boat’s hull; on a sailboat, often an appended fin-shaped structure that contains ballast.

**Lesson.** A specific occasion when students meet with an instructor to learn a particular topic. A lesson, sometimes referred to as a *class*, may stand on its own or be part of a larger course of instruction (see *Course*).

**Leeward.** The direction, or side of the boat, away from the wind.

**Life jacket.** A floatation device intended to be worn by an individual that meets the standards set forth in the Code of Federal Regulations as promulgated by the US Coast Guard.

**List.** Defines the lateral orientation – side to side - relative to the water’s surface. Tilting of the boat due to internal forces.

**Luff.** (1) *n.* The forward edge of a sail; (2) *v.* The fluttering of a sail when the boat is too close to the wind, *g.* “the sail is luffing;” (3) *v.* To head up into the wind so that the sails are depowered, “luff up.”

**Mainsail.** The sail attached to the aft side of the mainmast.
**Maintain proper lookout.** Making a make a full appraisal of the situation and of the risk of collision using sight, hearing and all other available means appropriate in the current circumstances or conditions. Called “Look-out” in Rule 5 of the Navigation Rules and Regulations Handbook.

**Making way.** When a boat is being propelled through the water by sail, machinery, or oar.

**Maneuver in close quarters.** To operate a boat in a confined area; typically requires operation at slow speed (e.g., in a marina or narrow fairway).

**Mast.** A fixed vertical spar that holds up a sail or sails.

**Minimum control speed.** The slowest speed at which an operator can effectively control the heading of the boat using intermittent application of power, steerage and headway.

**Navigation rules.** Rules for the operation of a boat while on the water, whether underway or at anchor, and designed to prevent collisions.

**Neutral.** The engine / propulsion unit are not in gear or engaged.

**Normal operating speed.** The speed at which the boat is operated for optimum performance and efficiency. The actual speed is dependent upon design of the hull (see planing speed).

**No-sail zone.** The zone in relation to the wind where the sails cannot generate power; sometimes called the “no-go zone.”

**Novice.** A person who is new to an activity and typically has little or no knowledge or skills related to that activity.

**Objectives.** Specific end results students will achieve that collectively accomplish the overall goal for the unit of instruction. They provide guides to selecting content, designing the instructional strategy and preparing the materials to engage students in the instructional activities.

**On-water instruction.** A course or program of instruction that is boat-based and on the water. Instruction takes place primarily in the natural setting of the boat (on or near the water) with experiential learning as the primary method of delivery.

**Outhaul.** A line used to tension the foot of the mainsail.

**Passengers.** People or occupants in a boat who are not involved in its operation.

**Performance Objectives.** Specific focused outcomes to be achieved as a result of engaging in a learning experience. Objectives may identify the concrete knowledge, skills, attitude or behaviors a student will be able to demonstrate as a result of the learning experience.

**Planing speed.** The speed at which a planing hull is supported by dynamic buoyancy generated by its forward speed. The boat is no longer operating in the displacement or semi-displacement mode.

**Planing stop.** The stop used to bring a planing hull to a stop with the least amount of movement or advance along its original track while avoiding having water enter the boat over the transom. This applies only to planing hulls.

**Point of sail.** The direction a boat is sailing relative to the wind. There are five points of sail: Close-haul (or Close-hauled), Close Reach, Beam Reach, Broad Reach, and Run (or Running).
Porpoising. The motion of the bow of a boat bobbing up and down due to its fore and aft trim and resulting interaction with the water. Not wave generated.

Port. 1. A harbor; 2. The left-hand side of a boat when facing forward.

Prerequisites. Something that is required before a student can participate in a learning experience. For example, a prerequisite for attending a course might be a previous learning experience attended, a set of skills previously acquired, or knowledge previously learned.

Proficiency. A description of the behaviors and actions that demonstrate the level of competence, accomplishment or skill in operating a recreational boat.

Program. A collection of courses designed to accomplish a comprehensive set of goals and objectives too large to be accomplished by any one course of instruction.

Propulsion unit. The mechanism that causes the powerboat to move (e.g. propeller, jet). The phrase is applied to a mechanical device rather than a sail or paddle.

Radius of turn. The distance a boat offsets laterally during 90 degrees of turn; usually measured in feet, yards, or meters.

Rate of turn. The change in vessel heading per unit of time, typically measured in degrees per minute.

Rubric. A mechanism used to define and describe different levels of proficiency for a particular skill in behavior and action. Along with distinguishing successful from unsuccessful demonstration of a skill, rubrics identify performance that needs improvement to obtain targeted successful level of proficiency.

Rudder. The movable appendage attached to a boat under the water and with which it can be steered. A rudder could be attached to a post underneath the boat, or hung on the transom with fittings called pintles and gudgeons.

Rules of the road. The collegial expression often used to refer to Navigation Rules. This is the term used to identify the general statement governing the application of those on-water standard elements for which the boat is making way.

Run. The point of sail on which the wind is directly astern.

Safety Position. When a sailboat has essentially stopped making forward progress (may be drifting as a result of wind or current) on a close reach with the sail(s) luffing and the mainsail eased. This is a maneuver commonly used by sailing dinghies.

Sheet. A line used to control the alignment or angle of a sail relative to the boat and the wind.

Skill. The learned capacity, aptitude or ability to do something.

Stand-on vessel. Under the Navigation Rules, the vessel that is obligated to maintain its course or speed, unless it is apparent that the Give-way vessel is not taking early and substantial enough action to avoid the collision.

Standard. The definition of the qualities or characteristics used to judge how well something is accomplished. Skills standards for entry-level, recreational boat operation identify, a) the skill individuals are able to demonstrate; and b) the condition that is fulfilled when the skill is demonstrated to an
acceptable level of proficiency. The Instructional Approach Standard identifies a) the characteristic, and
b) the criteria of the instructional approach.

**Starboard.** The right-hand side of the boat when looking forward.

**Steady course.** Maintaining the boat’s intended direction.

**Stern.** The aft part of a boat.

**Student-centered instruction.** An approach that puts the focus of attention on the student and tailors
delivery of instruction to fit the distinct learning needs, preferences and interests of the individual student,
or group of students. This approach is often counter to those designed to work best for the education
provider (e.g., efficiency and mass production) but that might not be the best approach for learning the
particular topic.

**Summative feedback.** The act of providing students with feedback at the conclusion of a learning
experience about their overall level of proficiency obtained as a result of participation. It is used to
determine whether a student has successfully acquired the skills associated with the specific learning
goals and objectives of the learning experience and to identify future opportunities to continue learning.

**Tack.** (1) n. The forward lower corner of a sail; (2) v. To change course by turning the bow of a sailboat
through the wind; (3) n. A designation according to which side of the boat the wind is blowing onto. The
boat is said to be “on a port tack,” or “on a starboard tack.” For the purposes of the Navigation Rules,
when on the Running point of sail, the tack is determined by the side of the sailboat that is opposite the
mainsail.

**Telltale.** A short length of light yarn or similar material attached to a sail to indicate the flow of air
across it and thus the state of the sail’s trim.

**Three points of contact.** Includes contact with the boat by any three of the following: individual hand,
individual foot or buttocks.

**Throttle.** The mechanism used to control the engine’s revolutions per minute and used to control the
speed of the boat.

**Tiller.** A lever used to control the angle of the rudder and thereby steer the boat.

**Track.** The path that the boat has taken over the ground.

**Traveler.** A car and track system that allows the main sheets attachment point to the deck to be moved
afwartships.

**Trim.** The relation of a boat’s fore and aft orientation to the water’s surface; e.g., level trim; or bow up
or down; or stern up or down. Also, to adjust the angle of outboard motors or stern drives.

**Underway.** When a boat is not at anchor, or made fast to the shore, or aground.

**Upwind.** In the direction from which the wind is blowing.

**Ventilating.** The drawing of air from the surface into the propeller blades disrupting the water flow over
the blades causing a sudden loss of thrust and increase in engine RPM. Often occurs in a turn of a planing
hull where the propulsion unit moves too close to the surface due to the boats heel.

**Windward.** Toward the wind.