



Australian Government

SISOSAI002 Sail small boats in partially smooth water and moderate to fresh wind conditions

Release: 1

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Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to sail small boats, under 8.5 metres length of deck, in moderate to fresh wind conditions within partially smooth waters. It requires the ability to launch, land and sail; steer on all points of sail, and to tack and gybe. It also requires the ability to rescue crew members from the water, recover from a capsize, and to operate small boats under tow.

This unit provides the skills to sail in partially smooth water conditions found within ports, bays and harbours, and sheltered coastal areas up to 2 nautical miles seaward from the coast. Sailors at this level can sail in variable winds from moderate winds of 11 to 16 knots and in fresh winds of 17 to 21 knots (Beaufort Scale).

Partially smooth water could feature small white capping waves up to 1.25 metres. When fresh winds prevail, water could feature long moderate sized white capping waves between 1.25 and 2.5 metres.

It applies to leaders, guides or instructors, who use these skills when leading participants during sailing activities. Leadership skills are provided in complementary units.

This unit applies to any type of organisation that delivers outdoor recreation activities including commercial, not-for-profit and government organisations.

Recreational boating is regulated by specific laws in each Australian state and territory with variable rules. General and specific waterway rules apply to the operation of small boats. All training and assessment activities must comply with the local state or territory requirements. No occupational licensing or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Sailing Small Boats

Unit Sector

Outdoor Recreation

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes

1. Prepare for the sail.

2. Rig small boat.

3. Launch small boats.

4. Sail a marked course in partially smooth water and moderate to fresh wind conditions.

5. Recover crew member lost overboard.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Select clothing, footwear and personal protective equipment suitable for conditions, and check for safe working condition.
- 1.2. Select a suitable site for sailing activities according to current conditions.
- 1.3. Confirm activity safety and emergency response procedures to ensure compliance during activities.
- 1.4. Confirm protocols for communications between party members and with other water users.
- 1.5. Fit and adjust lifejacket to ensure comfort and safety.
- 2.1. Select lines and other rigging equipment to suit design of small boat in use.
- 2.2. Rig sails to mast and boom using appropriate tension.
- 2.3. Secure lines by tying knots suitable for rigging.
- 2.4. Complete safety checks according to organisational procedures.
- 3.1. Determine wind direction to enable easy launching.
- 3.2. Embark and launch small boat from bank, shore or wharf while maintaining stability, direction, speed and control.
- 3.3. Secure or drop the centreboard, where present, and rudder.
- 4.1. Comply with waterway rules throughout all activities, including use of boat within permitted areas.
- 4.2. Manoeuvre boat using primary boat controls, safely approach, and negotiate obstacles and hazards to minimise risk of injury.
- 4.3. Determine wind direction and use wind, wind indicators and directional change to follow marked course.
- 4.4. Use the tiller extension where necessary to sail a course which includes windward and downwind legs.
- 4.5. Respond to changing wind conditions; adjust sails to effectively manoeuvre boat using techniques appropriate for wind conditions.
- 5.1. Provide clear and concise instructions to person being rescued and others assisting.
- 5.2. Engage a lookout to maintain sight of crew overboard at all times and to consistently indicate position in water.

- 5.3.Reduce speed to safe level, approach and stop to leeward side of crew member in water.
 - 5.4.Rescue crew member from water using reach techniques.
 - 5.5.Utilise throw resources to reach and recover crew member in water.
 - 5.6.Position boat appropriately and assist injured crew to re-enter boat.
- 6. Recover from a capsize.
 - 6.1.Recognise warning signs and take immediate action to prevent capsize.
 - 6.2.Signal for assistance following capsize, as required, and implement organisational capsize procedures.
 - 6.3.Check safety of crew, provide instruction, and stay clear of rigging in water.
 - 6.4.Maintain contact with boat, secure floating items, as able, and ease sheets.
 - 6.5.Utilise all crew members to right small boat using counterweight methods and smooth transitions; maintain head to wind.
 - 6.6.Re-enter crew to boat gradually as sufficient freeboard is regained after first crew member has re-entered and started bailing.
- 7. Operate small boats under tow.
 - 7.1.Drop and secure sails and secure all equipment.
 - 7.2.Receive and secure towline using appropriate fixtures, knots and tensions to spread load on towline.
 - 7.3.Seat crew in positions to provide balance to small boat.
 - 7.4.Signal towing vessel when ready to proceed.
 - 7.5.Maintain communication with towing vessel and monitor towline and response of small boat, adjust any equipment as required.
- 8. Land and secure small boats.
 - 8.1.Bring small boat to anchor using techniques appropriate for situation
 - 8.2.Drop sails, raise centreboard, where present, and rudder and prepare lines in preparation for return to shore.
 - 8.3.Account for effects of wind and tide to safely manoeuvre boat into landing position.
 - 8.4.Maintain stability, direction, speed and control to land boat into a range of free and tight positions.
 - 8.5.Secure small boat to bank or shore or wharf using appropriate knots, and retrieve boat from water.
 - 8.6.De-rig and pack all components.
 - 8.7.Secure boat for road transport using suitable methods.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	• interpret detailed and familiar organisational safety and emergency response procedures • interpret potentially unfamiliar and complex information about waterway rules.
Oral communications skills to:	• use clear and unambiguous verbal and non-verbal communications to make intent known.
Numeracy skills to:	• interpret and calculate numerical data involving: • direction and speed of wind and currents • angles that relate to points of sail and tacking manoeuvres.
Planning and organising skills to:	• manage own timing to complete activities within planned timeframes.
Self-management skills to:	• critically analyse all circumstances and implications to provide a prompt and considered response to rescue requirements.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume Implementation Guides -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1ca50016-24d2-4161-a044-d3faa200268b>

Assessment Requirements for SISOSAI002 Sail small boats in partially smooth water and moderate to fresh wind conditions

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- complete two group sailing sessions in moderate wind conditions
- complete two group sailing sessions in fresh wind conditions
- during each session consistently:
 - follow safety procedures and safely negotiate hazards
 - follow waterway rules
 - utilise effective techniques to:
 - rig the sail boat
 - launch and land the sailboat under control
 - power, steer and turn the sailboat under control on a marked course
- participate in simulations to:
 - recover three crew members lost overboard, one at any given time, and collectively use reach and throw techniques and equipment
 - recover from a capsize on three occasions
 - operate under tow on one occasion.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- organisational safety and emergency response procedures for sailing activities
- clothing and footwear suitable for sailing activities:
 - types of clothing and fabrics that protect against the effects of weather including sun, temperatures, winds and precipitation of different levels
 - effective design and construction features of waterproof gear
 - types of footwear including specialist boating sandals and shoes and their advantages over other types of footwear
 - features and uses of sailing gloves and mittens, and advantages and disadvantages
- features and functions of lifejackets suitable for partially smooth water conditions and how to fit and adjust these for comfort and safety
- location and function of these small sailboat parts:
 - bow and stern

- hull
- deck
- cockpit
- painters ring
- centreboard
- tiller and rudder
- mast
- boom
- sails:
 - mainsail and jib
 - parts of sails – battens, luff, leech, head, foot, tack and clew
- rigging:
 - standing and running rigging, meaning and difference
 - halyards and sheets
 - downhauls, including Cunningham’s eye, and outhauls
 - cleats of different types
- types of small sailing boats suitable for use in partially smooth water conditions and:
 - different construction materials, effects on performance, advantages and disadvantages
 - design features, handling characteristics and limitations: manoeuvrability, stability and speed
- communication protocols for sailing activities to include:
 - calls
 - hand signals
 - international distress signals
- the impact of the following on selection of sailing location, and on launching, landing and manoeuvring small sailing boats:
 - tides, currents, waves and rips
 - on, cross, and off shore winds
- the interrelationship of winds, tides and current and effects on sailing conditions
- the meaning of the following terminology used for sailing:
 - port
 - starboard
 - ahead, abeam, astern
 - fore and aft
 - windward, upwind
 - leeward, downwind
 - cross wind
 - dead run
 - luffing up
 - bearing away

- safe manual handling techniques used to lift and carry small sailing boats and equipment
- equipment features and techniques used to secure small sailing boats for transportation
- techniques and knots used to rig small sailing boats, and correct tensions
- techniques used to:
 - embark, launch, land and disembark small sailing boats from bank, shore and wharves, including those for tight positions
 - secure boats to bank or shore and wharves
- specific to partially smooth water and moderate to fresh wind conditions:
 - sailing manoeuvres and techniques for tacking and gybing on a marked course
 - different techniques used to adjust sails and when these would be used:
 - trimming
 - reefing
 - heaving to
 - different techniques used to anchor small boats and when these would be used
- points of sail and all associated terminology
- the “no go zone” and how to get upwind
- principle of tacking upwind and gybing downwind
- hazards associated with gybing downwind and how to manage these
- typical hazards associated with sailing, and techniques used to safely negotiate these:
 - tides, currents and rips
 - built objects – piers, navigation markers
 - steep, slippery or rocky shores
 - sections of dark, deep or cold water
 - marine animals
 - other boating traffic
- features, functions and operation of equipment used to rescue crew from water:
 - reach equipment
 - throw bags, lifebuoys and slings
 - throw ropes
- techniques used to rescue crew from water:
 - reach techniques
 - throw techniques
 - using rescuee’s lifejacket and dragging injured crew member onto boat
- for capsizes:
 - actions that can prevent imminent capsize; easing sheets, shifting weight, change heading
 - appropriate swimming strokes and techniques to use while clothed in smooth water conditions
 - counterweight techniques used to re-establish upright small boat, and correct positioning of boat in relation to wind direction
 - importance of gradual crew re-entry into boat

- how to empty water from small boats, and equipment used to assist
- equipment and towing techniques used for small sailing boats when under tow
- specific to the local state or territory:
 - categories of waterways determined by law and maritime authority:
 - description of waterway and limits
 - how to interpret basic limit charts issued by the local authority
 - safety equipment required for small sailing boats within the limits
 - life jackets required within the limits
 - rules specific to the operation of small sailing boats:
 - give way rules – passing, crossing and overtaking powered and non-powered vessels
 - distance limitations (“distance off”) – rules for swimmers, designated swimming zones, dive flags, unpowered and powered vessels stationary or underway, moored or anchored vessels, built structures (bridges, jetties, navigation markers)
 - prohibited local areas – also called “exclusion” and “no go zones”
 - alcohol and drug restrictions
 - requirements for lights after sunset
 - incident reporting requirements including those for verbal and written reports.

Assessment Conditions

Skills must be demonstrated in partially smooth water conditions which can be within ports, bays and harbours, and sheltered coastal areas.

The environment must feature the following:

- for two assessments:
 - moderate winds between 11 to 16 knots (Beaufort Scale) and small breaking white capping waves up to 1.25 metres
- for two assessments:
 - fresh winds between 17 to 21 knots (Beaufort Scale) and long moderate sized white capping waves between 1.25 and 2.5 metres

The following resources must be available to replicate industry conditions of operation:

- first aid equipment
- communication equipment for emergency response
- an activity support vessel suitable for the area of operation carrying equipment necessary to rescue a sailor and sailing craft, and this must be underway during the sailing activity while sailing craft are afloat.

Assessment must ensure use of:

- a group of participants with whom the individual interacts during sailing activities

- people who act as team members, participants and rescuees with whom the individual interacts during simulated rescues, capsizes and tows
- clothing suitable for the conditions
- Australian Standard, or equivalent, compliant lifejackets of a grade that meets maritime regulator requirements for the location
- small sailing boats of any design under 8.5metres length of deck, suitable for use in partially smooth water and moderate to fresh wind conditions
- sails, rigging and rigging tools suited to the type of craft
- ropes and tie down straps for transportation
- rescue equipment:
 - reach equipment
 - throw equipment
 - towlines
 - bailing device
 - knives
- boating guide issued by the local state or territory maritime authority
- information on tides, depths, currents and other expected water conditions
- organisational safety and emergency response procedures for sailing activities.

Assessors must satisfy the Standards for Registered Training Organisations requirements for assessors, and:

- have a collective period of at least three years' experience as a sailing leader, guide or instructor, where they have applied the skills and knowledge covered in this unit of competency ; the three years' experience can incorporate full and or part time experience.

Links

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